

The Global Collaboratory on the History of Labour Relations, 1500-2000: Background, Set-Up, Taxonomy, and Applications

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This essay consists of two parts. Part one, which comprises four sections, is written for a general readership and explains the background to the Global Collaboratory on the History of Labour Relations, 1500-2000.¹ It elaborates on the key social and economic issues it wants to address (including social inequality) and on how the data collected by the Collaboratory can be combined with other socio-economic macro and micro data for this purpose. The essay shows furthermore how the project stands in the context of a long tradition of categorizing labour and labour relations, and how the taxonomy developed by the project to categorize labour relations worldwide for at least the past five hundred years is constructed. As the project is work in progress, the taxonomy is updated when new datasets and insights become available. Part two is written specifically for members of the Collaboratory and other taxonomy users, and explains what modifications were made to the taxonomy, and why. The Appendix gives an overview of the definitions of labour relations as used in the taxonomy.

Finally, we have included a note on the ambiguity of the term “labour relations”, which is sometimes used to refer to the collective relations between employers and employees, or employees’ representatives. Our definition of labour relations encompasses for and with whom one works (see part two). As our period of study includes regions and periods that were not characterized by industrialization, we cannot term such relations “industrial relations”. Nor can we refer to them as employer-employee relations, as such a hierarchy did not always exist (in the case, for example, of reciprocal labour), or it would be unethical to refer to them as such (with slavery for example).

¹ This project has been made possible by generous grants from the Gerda Henkel Stiftung in Düsseldorf as well as from the Netherlands Organisation for Scientific Research (NWO) and the International Research Centre “Work and Human Lifecycle in Global History” at Humboldt University in Berlin (re:work). Further, separate grants were made available for conferences held by a number of subgroups, for example in Portugal, Turkey, Brazil and India.

Part I

1. Key historical questions

One of the crucial issues that has to be addressed by social and economic historians is that of social inequality. Although the official ideology of the modern world, as laid down in the Charter of the United Nations and in virtually all constitutions, is based on the ideal of equality of all men, social inequality has far from disappeared. Historians, as well as economists, are interested in understanding why this inequality is so persistent, notwithstanding the seemingly universally shared ideal of equality and equal opportunity. They therefore study the emergence and development of human equality and inequality, by focusing on institutions (political and non-political), family systems, factor endowments, as well as health factors.²

Remarkably, labour relations have so far played only a subordinate role in this debate. This neglect of labour in economic history goes back to the 1950s, as Kaoru Sugihara has remarked: “Along the way [...], the unique attributes of labour among factors of production (labour is embodied in human beings) have largely disappeared from the analysis of economic growth. The most conspicuous writer that promoted this process was W.W. Rostow. In his scheme, the timing of ‘take-off’ was determined by the rise in the ratio of saving to GDP”. If we want to understand the neglect of labour by economic historians, Sugihara continues, the assumption that labour was abundant, homogenous, and disposable at the initial stage of economic development, and therefore at most a dependent variable, is at least as important. And thus classical economists from Marx to Arthur Lewis have tended to discount the question of the quality of labour.³ To fully understand the role of labour, however, we should not only look at the quality of labour and the role of human capital, but also include the division of labour (“who does what kind of work?”), the human relations that directly stem

² J. Stiglitz, *The Price of Inequality: How Today's Divided Society Endangers Our Future* (New York, W.W. Norton & Company, 2012); G. Therborn, *The Killing Fields of Inequality* (Oxford, Polity Press, 2013); A. Deaton, *The Great Escape: Health, Wealth, and the Origins of Inequality* (Princeton, Princeton University Press, 2013); T. Piketty, *Capital in the Twenty-First Century* (Cambridge, MA, The Belknap Press of Harvard University Press, 2014); D. Acemoglu and J.A. Robinson, *Why Nations Fail: The Origins of Power, Prosperity and Poverty* (London, Profile Books, 2015); A.B. Atkinson, *Inequality: What Can Be Done?* (Cambridge, MA, Harvard University Press, 2015).

³ K. Sugihara, “Labour-Intensive Industrialization in Global History: An Interpretation of East Asian Experiences”, in G. Austin and K. Sugihara (eds), *Labour-Intensive Industrialization in Global History* (London and New York, Routledge, 2014), pp. 20-64, there pp. 20-21.

from it, and the appreciation of certain types of work (“who is paid what?”), especially if we want to understand the crucial determinants of social inequality.

So what determines the price of labour and the circumstances under which people work? If only it were as simple as Adam Smith posited in his *Wealth of Nations* (1776): “Labour, therefore, is the real measure of the exchangeable value of all commodities.”⁴ According to Smith the remuneration depended on the “the skill, dexterity, and judgement with which its labour is generally applied”. Natural resources and the climate played an additional role.⁵ However, we now know better: even if, for the moment, we were to ignore these factors, such as the heredity transmission of capital (a major economic institution that perpetuates and even deepens inequality),⁶ large differences in the remuneration of work would remain.

Adam Smith was well aware of the divergent practice: “Pecuniary wages and profit, indeed, are everywhere in Europe extremely different, according to the different employments of labour and stock.”⁷ For Europe in his own time he distinguished five reasons why, also in a situation of full competition (which according to him did not exist, due to guilds, the excess of supply of certain skills, as well as wage and “settlement” regulations), individual wages would vary according to employment, namely:

- “[...] *the ease or hardship, the cleanliness or dirtiness, the honourableness or dishonourableness, of the employment.*” Remarkably, Smith remarked that the harder and dirtier, or more respectable, the work, the higher the remuneration.
- “[...] *the easiness and cheapness, or the difficulty and expense, of learning the business.*” This could be translated into income postponed because of the time invested in training.
- “[...] *the constancy or inconstancy of employment.*” In his time, Smith observed that irregular work was mostly better paid than regular employment, to compensate for those days not worked.
- “[...] *the small or great trust which must be reposed in the workmen.*” This would explain the higher remuneration of goldsmiths, doctors, and notaries.

⁴ Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (London, s.n., 1776), p. 38 [Book I, Ch. V].

⁵ *Ibid.*, p. 17 [Book I, Introduction].

⁶ Piketty, *Capital*.

⁷ Smith, *An Inquiry*, p. 91 [Book I, Ch. X]. What follows is a short summary of this key chapter, entitled “Of Wages and Profit in the Different Employments of Labour and Stock”.

- “[...] *the probability and improbability of success in them [i.e. employments].*”

In this discussion Smith shows both the strengths and the limitations of his theory, partly consciously, partly unconsciously. Having restricted himself to Western Europe, he was clearly aware of other societal structures in the past and present (hereditary castes in ancient Egypt and India, for example, slavery in antiquity and the Middle Ages),⁸ but it is only in passing that he draws them into his analysis. With respect to Western Europe, however, he says nothing about the differences in remuneration between men and women, between paid and unpaid work, and only in a very specific sense does he mention power differentials, where, for example, guilds or workers establish “combinations” in order to effectuate higher rewards.

These limitations, inherent in economic theories,⁹ are not very fruitful in global labour history, even when we limit ourselves to the past five centuries. Early French socialists, and later on Karl Marx and his followers, moved forward by explicitly focusing on power differences that – apart from the factors mentioned by Smith – determine the unequal reward allocated to labour. To end this inequality they concentrate, remarkably enough, not so much on the implications of different labour relations but on property ratios.¹⁰

2. Labour relations

To better understand the diverse forms of labour relations worldwide, in 2007 the International Institute of Social History (IISH) in Amsterdam set up the Global Collaboratory on the History of Labour Relations. This project aims to draw up a worldwide inventory of all

⁸ *Ibid.*, pp. 539-544 [Book IV, Ch. IX].

⁹ Although less so in institutional approaches, inspired by the work of Douglass North: D. North, *Institutions, Institutional Change and Economic Performance* (Cambridge, Cambridge University Press, 2002). See also J.L. van Zanden and M. Prak, “Towards an Economic Interpretation of Citizenship: The Dutch Republic between Medieval Communes and Modern Nation-States”, *European Review of Economic History*, 10:2 (2006), pp. 111-145.

¹⁰ For the French socialists see, for example, Lorenz von Stein, *Der Sozialismus und Communismus des heutigen Frankreichs: Ein Beitrag zur Zeitgeschichte* (Leipzig, Otto Wigand, 1842), pp. 70ff. In several instances, Marx, *Das Kapital* (Hamburg, Verlag von Otto Meissner, 1867), analyses the wage labour of his own time in a neutral way, while ending each passage with sarcastic remarks. See 2. Abschnitt, 4. Kapitel, Para 3 (“Kauf und Verkauf der Arbeitskraft”), 6. Abschnitt (“Der Arbeitslohn”), 7. Abschnitt, 23. Kapitel, Para 5e (“Die Wandergänge”). In the end he concludes: “Kapitalistische Produktions- und Akkumulationsweise, also auch kapitalistisches Privateigentum, bedingen die Vernichtung des auf eigener Arbeit beruhenden Privateigentums, d.h. die Enteignung des Arbeiters” (last sentence of *Das Kapital*).

types of labour relations, in all their facets and combinations, in different parts of the world at five cross-sections in time: 1500, 1650, 1800, 1900 (and, for Africa, 1950 too), and 2000.

Efforts to systematize work according to the different human relations involved are not new. The oldest are the distinctions between master and servant and between slave owner and slave. Alongside these legal distinctions came the notion of social stratification as well as that of “class society” by Karl Marx and those inspired by him. Central to this line of thinking is the rise of the proletariat, i.e. wage-dependent workers. The German scholar Werner Sombart (1863-1941) was the first to attempt to apply this concept to the entire occupational population of a country (in this case the German Empire in 1905).¹¹ Sociologists and historians subsequently tried to apply these categories to the entire population of Europe (except Russia) for the past five centuries.¹² Ethnographers, geographers, and archaeologists (some of whom referred to Karl Marx) pointed to the differences between labour relations in market economies in the West and those in the rest of the world, sometimes (as Karl Polanyi and anthropologists inspired by him tended to do) stressing especially the differences.¹³ Finally, irrespective of time and place, historical and contemporary occupational census takers, sociologists, and historians have increasingly struggled with definitions of work, influenced in part by the emerging feminist movement, which stressed the importance of the often unobserved work of women and children.

One of the most comprehensive definitions has been provided by the sociologists Charles and Chris Tilly:

Work includes any human effort adding use value to goods and services. [...] Prior to the twentieth century, a vast majority of the world’s workers performed the bulk of their work in other settings than salaried jobs as we know them today. Even today, over the world as a whole, most work takes place outside of regular jobs. Only a prejudice bred by Western capitalism and its industrial labor markets fixes on strenuous effort expended for money payment outside the home as “real work”, relegating other efforts to amusement, crime, and mere housekeeping.¹⁴

¹¹ Werner Sombart, *Das Proletariat. Bilder und Studien* (Frankfurt am Main, Rütten & Loening, 1906).

¹² Charles Tilly, “Demographic Origins of the European Proletariat”, in David Levine (ed.), *Proletarianization and Family History* (Orlando [etc.], Academic Press, 1984), pp. 1-85.

¹³ Jan Lucassen, “Outlines of a History of Labour”, IISH Research Paper 51 (2013), also available at <http://socialhistory.org/en/publications/outlines-history-labour> (commenting upon Weber, Polanyi, Chayanov, and others).

¹⁴ Charles Tilly and Chris Tilly, *Work under Capitalism* (Boulder, CO, Westview Press, 1998), p. 22.

All these lines of thinking have inspired the members of the Collaboratory to develop a new encompassing classification of labour relations, one necessary for long-term global comparisons, using the following definition: labour relations define for or with whom one works and under what rules. These rules (implicit or explicit, written or unwritten) determine the type of work, type and amount of remuneration, working hours, degrees of physical and psychological strain, as well as the degree of freedom and autonomy associated with the work. The Collaboratory's classification of labour relations claims a much wider validity than traditional occupational censuses do, because it is intended to cover the whole world, from 1500 and in principle also for earlier periods. At the same time, it pays tribute to a long historical pedigree of ideas, and it intends to offer an analytical instrument for comparing labour relations globally. The following steps were taken to arrive at this taxonomy of labour relations.

3. Taxonomy of labour relations, units of analysis: individual, household(s), polity and market

People do not work alone. Nor do they work only for themselves. In the first place, each *individual* works the larger part of their life for a *family* or *household*, defined as a group of kin who pool their income and mostly live and eat together. The activities of all members can thus be assumed to constitute a collective.¹⁵ They coordinate their activities, so we can speak of a collective strategy, also called "household living strategy".¹⁶ This consists of the mutual division of tasks according to skills, gender, age, and marriage strategy. Taking the *individual* as a nucleus, we distinguish the *family* as the first shell. Sometimes groups of households share tasks, in which case we speak of *communities*. When communities share a form of government whose leadership has the power or mandate to establish and maintain rules pertaining to labour, we speak of a *polity*.¹⁷ When we call the *household* (or several, united in a community) the second shell, the *polity* logically forms the third shell, and the *market* the fourth.

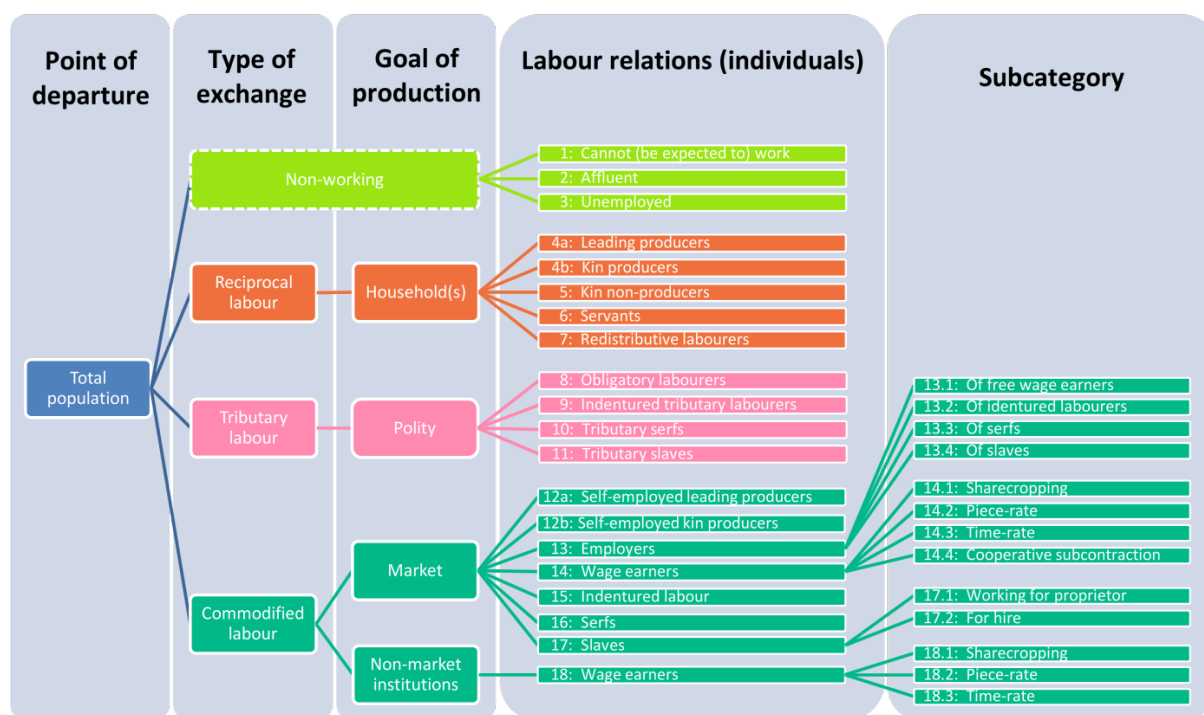
¹⁵ For the seasonality see the "work cycle" in J. Lucassen, *Migrant Labour in Europe, 1600-1900: The Drift to the North Sea* (London, Croom Helm, 1987).

¹⁶ Also known as "coping strategies". See T. Engelen, "Labour Strategies of Families: A Critical Assessment of an Appealing Concept", *International Review of Social History*, 47:3 (2002), pp. 453-464; and J. Kok (ed.), *Rebellious Families: Household Strategies and Collective Action in the Nineteenth and Twentieth Centuries* (New York, Berghahn, 2002).

¹⁷ A recent definition of polity is given by Olaf Corry, "What is a (Global) Polity?", *Review of International Studies*, 36: Supplement SI (October 2010), pp. 157-180, there p. 157: "a polity is deemed to exist when a set of subjects are oriented towards a common 'governance-object'".

There are different ideas about how markets originate, but it is beyond doubt that labour (specialization) both within and between individual tasks and, more especially, within and between regions plays an important role in the development of trade regulated by markets.¹⁸ For the taxonomy we use the definition of markets as “a set of institutions: rules, customs, and practices that structure the exchange of goods”¹⁹ (and services). These rules can be drafted by polities, but often customs and practices are also the result of power relations between different groups within a society where “they [...] suit best the interests of those that have the power to create and sustain them”.²⁰ By definition, polities can exist with or without a market, as in the Inca Empire in the fifteenth century.²¹ In a society based on production for the market, individuals as part of the fourth shell can also produce indirectly for the market as a unit of non-market institutions. This brings us to the following taxonomy:

Taxonomy of Labour Relations



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international institute
of social history

¹⁸ K.G. Persson, *Pre-Industrial Economic Growth: Social Organization and Technological Progress in Europe* (Oxford, Basil Blackwell, 1988), cited in S.R. Epstein, “Freedom and Growth: The European Miracle?”, LSE Working Paper in Economic History no. 22/94 (October 1994).

¹⁹ This definition is developed by Jessica Dijkman, *Shaping Medieval Markets: The Organisation of Commodity Markets in Holland, c. 1200-c. 1450* (Leiden, Brill, 2011), p. 13.

²⁰ *Ibid.*, p. 19.

²¹ M. Rostworowski, “The Incas”, in L.L. Minelli (ed.), *The Inca World: The Development of Pre-Columbian Peru, A.D. 1000-1534* (Norman, University of Oklahoma Press, 2000), p. 183; G.F. McEwan, *The Incas: New Perspectives* (Santa Barbara, ABC-CLIO, 2006), p. 83.

In order to classify the total population (column 1) according to this taxonomy, we applied the following logic. We stress that this taxonomy should primarily be considered a tool to characterize individuals (column 4). The scheme should therefore be read from right to left and enables us to shed some light on the character of that society within a given place and period.

First, the taxonomy distinguishes between those who are able to work and those unable to work (the category non-working in our taxonomy). This has at least two advantages: it forces one to be aware of what work is; and it covers the entire population, thus explicitly also taking working women and children into account. As a consequence, in the day-to-day practice of historical research it compels scholars to test the demographic logic of their results as all categories together should equal the total population. In addition, it provides a basic critique of a large number of historical occupational censuses, which systematically under-register female work and work in the household in general.

Next, in column 2, it distinguishes between the three types of exchange in organizing the exchange of goods and services, including work. These types of exchange are linked up with the three levels of analysis listed in column 3, which reflect the target of production: the household and/or community, the polity, or the market. The principles on which this exchange takes place are *reciprocity* (work done for other members of the same household or a group of households that form a community), *tribute giving* (work based on obligations vis-à-vis the polity), and market exchange in which labour is “*commodified*” (i.e. where the worker – or in the case of unfree labour (labour relations 16, 17, and, though of a temporary nature, 15) and the owner of the worker – sells their means of production or the products of their work).

For the past five hundred years, in most parts of the world reciprocal labour outside the household has no longer been the sole category. This is true even if we concede that “self-sufficiency”, which occurs in labour relations 4a and 4b of our taxonomy, can include small-scale market transactions that aim at sustaining households rather than at accumulating capital by way of profiting from exchange value.²²

²² Marcel van der Linden, *Workers of the World: Essays Toward a Global Labor History* (Leiden, Brill, 2008), pp. 315-316, referring to G.A. Cohen, *Karl Marx's Theory of History: A Defence* (Oxford, Oxford University Press, 1978). See also Akira Hayami, Osamu Saitô, and Ronald P. Toby (eds), *The Economic History of Japan 1600-1990*, Vol. 1: *Emergence of Economic Society in Japan 1600-1859* (Oxford, Oxford University Press, 2004), who argue in a similar sense for a broader concept of “self-sufficiency” that allows for market production as long as accumulation is not the basic goal of such transactions.

All other, more subtle, distinctions fall within these four main categories (in our taxonomy's terms labour relations 1-3 for non-working labour, labour relations 4-7 for reciprocal labour, labour relations 8-11 for tributary labour, and labour relations 12-18 for commodified labour). They are based on various considerations, including the entities that organize labour (households, communities, or polities), the degree of freedom, and methods of remuneration. These subcategories will be explained in detail below. The Collaboratory fully recognizes that persons may experience different labour relations at the same time. In those cases (serfs who are permitted to perform wage labour part of the year), the researcher may attribute a primary labour relation to the main activity (as defined by hours spent) and a second or even a third to the subsidiary activity. Even more importantly, research so far has shown that shifts in labour relations mostly take the form of shifts in such combinations, especially in the short run.

4. Shifts in labour relations and inequality

By using the taxonomy, shifts in labour relations can be signalled and followed over time and place. States can impose slavery or massive forced labour, but they can also abolish such systems. Through laws and regulations they can enable (or under communist regimes, for example, abolish) free wage work, or stimulate entrepreneurship. Workers themselves have a choice as well, often by combining different labour relations, but in the case of bonded labour also by voting with their feet, through desertion, marronage, or otherwise.²³ And in the case of free labour relations, looking for another job. Finally, apart from these individual actions, workers can choose to change or improve their lot by joining unions and other collective organizations.

The distinction between shifts in labour relations by the state and other collectivities on the one hand, and by workers themselves on the other, is a useful analytical tool and provides workers with "agency".²⁴ However, it also obscures the relationship between the two parties. Polities cannot change and workers cannot oppose the rules and go unpunished. The binding force is the prevailing system of rules and beliefs about work and labour relations ("labour ideology"). A simple example is the principle of mutuality, which, as demonstrated

²³ G. Heuman (ed.), *Out of the House of Bondage: Runaways, Resistance and Marronage in Africa and the New World* (London, Frank Cass, 1986). A.H. Jeeves, *Migrant Labour in South Africa's Mining Economy: The Struggle for the Gold Mines' Labour Supply 1890-1920* (Quebec, McGill-Queen's University Press, 1985), p. 169.

²⁴ Apart from the state and other collectivities, economic and ecological factors can also forge change.

by de Waal and Hrdy, is a basic trait of human nature. The many deviations that followed, both in hierarchical-redistributive polities and in market societies, necessitate ideological modifications to reconcile workers with the new situation – the alternative being the destabilization of the polity.²⁵ Views on work and labour relations are therefore an important element of the collaboratory.²⁶

Using the taxonomy, the relationship between shifts in labour relations on the one hand and the emergence, increase, or decrease of inequality on the other can be analysed. That may be evident for forms of unfreedom and shifts in that direction (labour relations 10, 11, 15, 16, 17), but what about the relationship with other types of labour relations?

This question is closely related to the central research questions of the IISH Global Labour History programme: Why has work been valued and compensated in very different ways over the past five centuries? Why do people's working conditions vary so widely, from slavery to well-paid wage labour? And how can people individually or collectively influence these conditions? We can approach these questions in three ways. First, through the lens of the prevailing labour ideology (values, beliefs, rules), which stimulates or enforces certain labour relations (often within a certain "membership regime"²⁷). Secondly, through the "agency" of people. And, finally, there is the interaction between the ideology and agency. These three angles fit nicely into the broader themes of global social and economic history (democracy, economic growth, state formation, commodity chains) of which "social inequality" is one of the most central.²⁸ Subsequently, based on this perspective we can formulate a number of concrete and testable hypotheses, such as:

- The shift to wage labour stimulates, but depending on the circumstances may also decrease, social inequality.

²⁵ Frans de Waal, *Our Inner Ape: The Best and Worst of Human Nature* (London, Granta, 2005). *Idem*, *The Age of Empathy: Nature's Lessons for a Kinder Society* (New York, Harmony, 2008). Sarah Blaffer Hrdy, *Mothers and Others: The Evolutionary Origins of Mutual Understanding* (Cambridge, MA, Harvard University Press, 2009). T. Douglas Price and Gary M. Feinman (eds), *Pathways to Power: New Perspectives on the Emergence of Social Inequality* (New York, Springer, 2012). See also the triangle in Karel Davids, *Religion, Technology and the Great and the Little Divergences: China and Europe Compared. c.700-1800* (Leiden, Brill, 2013), who distinguishes between the state, the market, and religion.

²⁶ Karin Hofmeester and Christine Moll-Murata (eds), *The Joy and Pain of Work: Global Attitudes and Valuations, 1500-1650* [*International Review of Social History*, 56, Special Issue 19] (2011).

²⁷ Ulbe Bosma, Gijs Kessler, and Leo Lucassen, *Migration and Membership Regimes in Global and Historical Perspective* (Leiden, Brill, 2012).

²⁸ See footnote 1.

- The shift from wage labour to self-employment stimulates, but depending on the circumstances may also decrease, social inequality.
- The combination of different sorts of labour relations within the same household promotes the resilience of all its members to downward social mobility.
- Experience with different sorts of labour relations within the life cycle increases a repertoire of action to counter downward social mobility and may promote upward mobility.
- The extent to which it is possible for individuals or collectivities to enforce better remuneration of labour conditions within a certain labour relation depends strongly on the type of membership regime and on the scope for the individual or for groups to engage in collective action. The same holds true for the scope for improving one's lot by shifting to another type of labour relation.

Such hypotheses should then be tested by combining data on labour relations with datasets on wages, health, human capital, GDP, and migration, etc.,²⁹ using cross sections from, for example, the Maddison Project³⁰ or Clio Infra,³¹ which offer numerous useful indicators. Another approach is to use the individual datasets offered by the North Atlantic Population Project (NAPP)³² and the European Historical Population Samples Network (EHPS).³³ Linking information on occupations of individuals to labour relations will give us a new perspective on inequality. Apart from establishing individual differences within types of labour relations, it also enables us to look for differences within households or regions. By putting labour relations in a wider context, we can thus study whether *individual traits* (age, human capital), *household traits*, (family type), and *regional traits* (industrialization) are related to certain types of labour relations. Furthermore, this approach allows us to better understand trends in shifts in labour relations by allowing us to compare individual data over time, for example by using censuses from the mid-nineteenth century onwards, in various parts of the world. Finally, new insights into labour relations can be acquired by studying shifts in labour relations at the micro and meso levels over time within the broader context.

²⁹ For migration ratios according to the cross-cultural migration methods, see Jan Lucassen and Leo Lucassen (eds), *Globalising Migration History: The Eurasian Experience (16th-21st Centuries)* (Leiden and Boston, Brill, 2014).

³⁰ <http://www.ggd.net/maddison/maddison-project/home.htm>.

³¹ <https://www.clio-infra.eu>.

³² <https://www.nappdata.org/napp/>.

³³ <http://www.ehps-net.eu>.

Can we recognize certain patterns in labour relations within the life cycle? And to what extent are households characterized by shifts in labour relations from the moment the household is formed until the moment it is dissolved? And to what extent does the answer to this question depend on the period and region studied? To sum up, by combining labour relations with existing macro and micro data, we will find new explanations for shifts in labour relations, while at the same time understanding better how these shifts influence larger patterns in economic (wages, GDP, human capital) and social (family types, migration, political mobilization) developments.

A good example of the mutual relation between shifting labour relations and other socioeconomic factors is the abundance of labour in East Asia in the eighteenth to the twentieth centuries, which led to huge internal migrations within that region, increasing wage labour for relatively low wages, and consequently to a different (labour-intensive) road to industrialization.³⁴ More broadly, the mapping of labour relations for the total population is an essential ingredient in the Great Divergence debate, as implicitly argued recently by Patrick O'Brien and Kent Deng.³⁵ In their response to Peer Vries' *magnum opus Escaping Poverty*, they argue that the data on GDP and wages for China are flawed because they fail to capture the living standard and the productivity of the Chinese working population in Ming and Qing China. In the case of wages, for example, the key problem is that we do not know how many people worked for wages nor for how many days a year. Moreover, they signal that China's labour markets were much less integrated and competitive.³⁶ They therefore stress the need for more local and regional data, as well as different kinds of sources, such as price data for the net output/incomes accruing to households from agricultural and protoindustrial production, edible rice equivalents, and the importance of translating these into kilocalories per capita per day.³⁷ Combined with such new and inventive reconstructions, the plotting of labour relations at the local and regional levels, showing what part of the population at a certain place and time was engaged in what kind of work – wage labour, or reciprocal labour for the household for example – is a most helpful tool. It is crucial for calculating the extent of

³⁴ Austin and Sugihara, *Labour-Intensive Industrialization in Global History*. See also W.A. Lewis, *Growth and Fluctuations, 1870-1913* (London, Allen & Unwin, 1978).

³⁵ P. O'Brien and K. Deng, "Can the Debate on the Great Divergence be Located within the Kuznetsian Paradigm for an Empirical Form of Global History?", *Tijdschrift voor Sociale en Economische Geschiedenis*, 12:2 (2015), pp. 63-78.

³⁶ *Ibid*, p. 74.

³⁷ *Ibid*, pp. 75-77.

proletarianization, which then enables us to put wage data into perspective, whereas the size of household production can be linked to price and production figures.

Part II

5. Necessary modifications of the taxonomy

The meaning of the columns: individuals and societal types

The taxonomy is a tool primarily to characterize individuals. The scheme should be read from right to left, so the result of the categorization of all individuals within a society in a given time and space can tell us something about the character of that society. If for example the majority of the population has “reciprocal labour” as its primary labour relation, one could speak of a reciprocal society. These characterizations can help us to analyse shifts from one type of society to another, but these are not the shifts we are primarily interested in.

Naming the various columns and adding “Polity” in column 3

We decided to name every column to indicate the level of analysis. Column 2 is called “type of exchange”; column 3: “goal of production”; column 4 was already “labour relations (individuals)”. Column 5 is no longer an optional subcategory as we will see below in the description of labour relation 13. So far the taxonomy in the third column has lacked an indication that distinguished between household on the one hand and the market on the other (the place where decisions are being made regarding the deployment and remuneration of labour), so here “Polity” is added.

Explanations and classifications of single definitions

Participants in the Collaboratory interpret “reciprocal labour” in various ways. The main question is not whether individual members of a household are outside the “commodified labour” category (this is often true for members of the household who perform “only” household chores) but to what extent households, and thus heads of households, since 1500 can be characterized primarily as “self-subsistence households”. To have reciprocal labour as primary labour relation would mean that markets, taxes, and monetization are insignificant, which in most regions is no longer the case. For South Asia, for example, it has been remarked that “self-sufficiency” can no longer be complete. Basic foodstuffs, such as salt, and materials for tools and weapons, such as iron, were acquired through barter or monetary transactions even in tribal societies that were, by 1500, only marginally exposed to market

production.³⁸ Of course there are still households that are partially self-sufficient. Perhaps a good definition would be: if heads of households and kin producers together produce eighty per cent for their own use, then their primary labour relations can be called reciprocal.

In the category “self-employment” (labour relation 12), we have to distinguish between the household heads and their cooperating kin (often spouse and children). Participants have to be explicit in their decisions about members of the household for whom no profession is recorded in the census. Are they primarily performing household chores (formerly 5b), or are they cooperating in the company, farm, etc., of the household head? To give kin producers a more distinct position, we replaced 12 by 12a (“self-employed leading producers”) and added 12b (“self-employed kin producers”). Spouses and children of heads of households who perform wage labour in another firm continue to be classified in labour relation 14 of course. As a logical consequence of this, labour relation 4 (“household leading producers”) of a self-sufficient household should be replaced by 4a, and 5a (“household leading producers”) should become 4b (“kin producers”). The former 5b (“kin non-producers”) then becomes 5 (again).

To the subcategories 14.1-14.3 (all of them individual ways of remunerating wage workers) should be added 14.4: “cooperative subcontracting” with “group-wise remuneration”, as a rule at piece rates, examples of which can be found among brickmakers in Lippe (Germany) and in areas such as Russia and northern India.³⁹

Finally, we felt it necessary to distinguish between the labour relation of employers with free wage earners (labour relation 14) on the one hand and of unfree labourers (labour relations 15, 16, and 17) on the other. Employers of unfree labourers exercise economic power not only through contracts enforced by civil or criminal law, but also through property rights. Apart from the different legal institutions that are employed in both types of labour relations, the type of labour market is also distinct. In his *Escaping Poverty* Peer Vries states that “most scholars distinguish between markets where exchange is free and fair and all

³⁸ According to Amalendu Guha, “The Medieval Economy of Assam”, in Tapan Raychaudhuri and Irfan Habib (eds), *The Cambridge Economic History of India* (Cambridge, Cambridge University Press, 1982), vol. 1, p. 487: “village self-sufficiency in a total sense was a myth”, even for relatively remote Assam in the sixteenth and seventeenth centuries.

³⁹ Gijs Kessler and Jan Lucassen, “Labour Relations, Efficiency and the Great Divergence: Comparing Pre-Industrial Brick-Making across Eurasia, 1500-2000”, in Maarten Prak and Jan Luiten van Zanden (eds), *Technology, Skills and the Pre-Modern Economy in the East and the West* (Leiden and Boston, Brill, 2013), pp. 259-322. Piet Lourens and Jan Lucassen, “Labour Mediation among Seasonal Workers, Particularly the Lippe Brickmakers, 1650-1900”, in Sigrid Wadauer, Thomas Buchner, and Alexander Mejstrik (eds), *The History of Labour Intermediation: Institutions and Finding Employment in the Nineteenth and Twentieth Centuries* (New York, Berghahn, 2015), pp. 334-367.

parties involved are price-takers and markets where all sorts of extra-economic coercion or economic power influence behaviour, full well-realising that this distinction is far too neat and sometimes even somewhat misleading”.⁴⁰ Even though this distinction is artificial, it is important to record the specific characteristics of the relationship between the employer of free and unfree labour in the taxonomy. Therefore, in column 5, no longer an optional category but a subcategory in itself, we distinguish between employers of free wage earners (13.1), of indentured labourers (13.2), of serfs (13.3), and of slaves (13.4).

⁴⁰ Peer Vries, *Escaping Poverty: The Origins of Modern Economic Growth* (Vienna, Vienna University Press, 2013), p. 430. Of course the use of the term “free and fair” is slightly problematic in this phrase.

Appendix: Definitions of Labour Relations

Non-working:

As a starting point for each geographical unit and cross section, we take the entire population and subsequently determine what part is not, as a rule, working, and, consequently, what part is working (these “calculations” will often be based on estimates rather than precise data). The non-working population is divided into the following three categories:

1. *Cannot work or cannot be expected to work*: those who cannot work, because they are too young (≤ 6 years), too old (≥ 75 years),⁴¹ disabled, or are studying.
2. *Affluent*: those who are so prosperous that they do not need to work for a living (rentiers, etc.), and consequently actually do not work. This also goes for their spouses if all their productive and reproductive tasks are taken over by servants, nannies, etc. There are, of course, affluent people, owners of big companies, who are wealthy enough to stop working but nevertheless choose to continue to work. If they are employers, these people should be assigned to labour relation 13 instead of 2.
3. *Unemployed*: although unemployment is very much a nineteenth- and, especially, twentieth-century concept, we do distinguish between those in employment and those wanting to work but who cannot find employment.

Working:

Reciprocal labour:

Persons who provide labour for other members of the same household and/or community are subsumed within the category **Reciprocal labour**.

Within the household:

4 a. *Leading household producers*: heads of self-sufficient households (these include family-based and non-kin-based forms). Self-subsistence can include small market transactions, but only if most (at least eighty per cent) of total household income is earned through self-subsistence labour. Heads of households have labour relation 4a.

⁴¹ These minimum and maximum ages are very much culturally determined. The age brackets chosen will always be indicated in the database and explained in the methodological paper.

4 b. *Household kin producers*: subordinate kin, including spouses (men and women) and children of the above heads of households, who are mainly self-subsistent and who contribute to the maintenance of the household by performing productive work for that household.

5. *Household kin non-producers*: subordinate kin, including spouses (men and women) and children of heads of households, who can support the household (under either reciprocal or commodified labour relations). These spouse and kin dependants are free from productive work, but they contribute to the maintenance of the household by performing reproductive work for the household, i.e. especially child rearing, cooking, cleaning, and other household chores.

In all other cases spouses and kin producers in the categories named have income-generating activities essential for the survival of the household, i.e. labour relations 12a, 12b, 13, 14, or 18, and will have one of these labour relations themselves.

6. *Reciprocal household servants and slaves*: subordinate non-kin (men, women, and children) contributing to the maintenance of self-sufficient households. This category does not include household servants who earn a salary and are free to leave their employer of their own volition (i.e. labour relation 14), but it does include servants in autarchic households, monasteries, and palaces. They may work under all shades of conditions, from enforcement (including pawnship) to a desire to receive patronage. These conditions may change from one generation to another.⁴²

Within the community:

7. *Community-based redistributive labourers*: persons who perform tasks for the local community in exchange for communally provided remuneration in kind, such as food, accommodation, and services, or a plot of land and seed to grow food on their own. Examples of this type of labour include working under the Indian *jajmani* system, hunting and defence by Taiwanese aborigines, or communal work among nomadic and sedentary tribes in the Middle East and Africa. In the case of the *jajmani* workers in South Asia, hereditary structures form the basis of the engagement, while in parts of Africa or Taiwan the criteria for fulfilling community-based labour are gender and age (in Taiwan, for example, males between six and forty).

⁴² First-generation slaves might be commodified, whereas their children might no longer be considered slaves and might be working for the household on conditions that were more free, as was the case with children of slave women and free Ashanti men. See Gareth Austin, *Labour, Land and Capital in Ghana: From Slavery to Free Labour in Asante, 1807-1956* (Rochester, NY, BOYE6, 2005), pp. 106-134, 174-180, 481-490, 498-500.

Tributary labour:

Persons who are obliged to work for the polity (often the state, though it could also be a feudal or religious authority). Their labour is not commodified but belongs to the polity.

Those workers are included in the category **Tributary labour**.

8. *Obligatory labourers*: those who have to work for the polity, and are remunerated mainly in kind. This category includes those subject to civil obligations (corvée labourers, conscripted soldiers and sailors), and work as punishment, i.e. convicts. Yet the obligatory work can also be an entitlement that enjoys middle or high social standing, such as the European or Indian nobility, the samurai in Japan, or banner people in Qing China.
9. *Indentured tributary labourers*: those contracted to work as unfree labourers for the polity for a specific period of time to pay off a debt or fine to that same polity.
10. *Tributary serfs*: those working for the polity because they are bound to its soil and bound to provide specified tasks for a specified maximum number of days, for example state serfs in Russia.
11. *Tributary slaves*: those who are owned by and work for the polity indefinitely (deprived of the right to leave, to refuse to work, or to receive compensation for their labour). One example is forced labourers in concentration camps.

Commodified labour:

Work done on the basis of market exchange in which labour is “commodified”, i.e. where the worker or the products of his work are sold. The category **Commodified labour** is subdivided into those working for the market and those working for public institutions *that may nevertheless produce for the market* (though not for the gain of private individuals).

For the market, private employment:

12 a. *Self-employed leading producers*: those who produce goods or services for the market (for example, peasants, craftsmen, petty traders, transporters, as well as those in a profession) with fewer than three employees, possibly in cooperation with

12 b. *Self-employed kin producers*: household members including spouses and children who work together with self-employed leading producers who produce for the market. All

members of a family working under a putting-out system should be counted as self-employed producers.⁴³

13. *Employers*: those who produce goods or services for market institutions by employing more than three labourers. The number after the dot is an attribute that says something about the freedom or unfreedom of the employees.

13.1 Employers who employ free wage earners.

13.2 Employers who employ indentured labourers.

13.3 Employers who employ serfs.

13.4 Employers who employ slaves.

14. *Market wage earners*: wage earners (including the temporarily unemployed) who produce commodities or services for the market in exchange mainly for monetary remuneration. A subdivision is made by type of remuneration.

14.1 Sharecropping wage earners: remuneration is a fixed share of total output.

14.2 Piece-rate wage earners: remuneration at piece rates.

14.3 Time-rate wage earners: remuneration at time rates

14.4 Cooperative subcontracting workers at piece rates.

15. *Indentured labourers for the market*: those contracted to work as unfree labourers for an employer for a specific period of time to pay off a private debt. They include indentured European labourers in the Caribbean in the seventeenth and eighteenth centuries, and indentured Indian, Chinese, and Japanese workers after the abolition of slavery.

16. *Serfs working for the market*: those bound to the soil and bound to provide specified tasks for a specified maximum number of days for private landowners, for example serfs working on the estates of the nobility.

17. *Slaves who produce for the market*: those owned by their employers (masters). They are deprived of the right to leave, to refuse to work, or to receive compensation for their

⁴³ As long as they are ≥ 6 and ≤ 75 (or other age indications for too young or too old to work as documented for the cross section that is specifically analysed).

labour. Here we do not distinguish between the different ways individuals may become enslaved (sale, pawning, etc.). We do, however, differentiate between:

17.1 Slaves working directly for their proprietor, for example productive work by plantation slaves, and domestic slavery in households producing for the market.

17.2 Slaves for hire, for example for agricultural or domestic labour (as a rule they may keep a small part of their earnings, while the largest part goes to the owner).

For non-market institutions:

18. *Wage earners employed by non-market institutions* (that may or may not produce for the market), such as the state, state-owned companies, the Church, or production cooperatives, who produce or render services for a free or a regulated market. A subdivision is made by type of remuneration:

18.1 Sharecropping wage earners: remuneration is a fixed share of total output.

18.2 Piece-rate wage earners: remuneration at piece rates.

18.3 Time-rate wage earners: remuneration at time rates.

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