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A Theoretical Framework for Labour, Work, and Employment Research

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A Theoretical Framework for Labour, Work, and Employment Research

Research in labour, work and employment (LWE) covers a dauntingly large and heterogeneous set of topics, as well illustrated by this volume's table of contents. In addition, LWE research approaches these topics from a number of different disciplinary perspectives spanning the behavioral and social sciences, levels of analysis ranging from individual employee to nation state, and cultural and institutional contexts across nations and world regions. The number of cells in the LWE research matrix is therefore easily in the hundreds.

Research rests on a stronger scientific foundation when it is informed and guided by well-reasoned and empirically-grounded theory. For example, theory leads researchers to think more deeply about their subject of analysis, such as its purpose, origins, key attributes, and operation; the nature of independent and dependent variables; the cause-effect relationships that connect them; and the formulation and testing of hypotheses. Theory, in effect, helps cognitively-constrained humans sort out and identify underlying commonalities and connections in the world of labour, work, and employment that intuition and empirical study alone cannot discern and disentangle.

Having made the case for theory in LWE, the challenge is to then deliver. One approach is to start with theories and models within different commonly-recognized parts of the subject's research matrix -- such as labour process, varieties of capitalism, industrial relations, comparative human resource management, and radical political economy -- and describe each in a section and then at the end attempt some integration and synthesis. I chose not to go this route, however, for concern that it may yield disappointingly small value-added for many readers and little net contribution to advancing the LWE theory program. A reason for thinking so is that over the last decade a plethora of handbooks and edited volumes in cognate areas related to LWE have been published containing in each case several-to-numerous chapters on theoretical perspectives and frameworks. Examples include *Oxford Handbook of Employment Relations* (Wilkinson, Wood, and Deeg, 2014), *Sage Handbook of the Sociology of Work and Employment* (Edgell, Gottfried, and Granter 2015), *Handbook of Labour Economics* (Ashenfelter and Card 2011), *Sage Handbook of Industrial Relations* (Blyton, Bacon, Fiorito, and Heery 2008),

and edited volumes such as *HRM & Performance: Achievements & Challenges* (Paauwe, Guest, and Wright 2013) and *Working Life: Renewing Labour Process Analysis* (Thompson and Smith 2010).

Rather than give thumbnail sketches of theoretical perspectives which many other authors have elsewhere developed in far more depth, I chose as an alternative approach to use this chapter to develop a more broad-based and integrative conceptual framework for LWE. The framework is anchored on LWE's most distinctive and important institution, the employment (wage-labour) relationship (ER), and uses as structural scaffolding the industrial relations (IR) *frames of reference* model. It was first advanced by Fox (1974) with three frames – unitarist, pluralist, and radical -- and later expanded to include an egoist frame by Budd and Bhave (2008).

A contribution of this chapter is to expand and develop the IR four frames of reference model so it has greater theoretical content and explanatory power. The end-product is a three-tier diagram of an *employment relations system* (ERS) with eleven analytical components. The model is distinctive because it: (1) spans levels of analysis from most-micro (individual/psychological) to most-macro (nation state/political economy), (2) spans the various disciplines and fields of study in LWE, (3) analytically represents major theoretical constructs and cause-effect connections, (4) presents a new conceptualization of the dependent variable in LWE research and identifies important independent, mediating, and contextual explanatory variables, (5) explains important LWE outcomes and behaviors, and (6) gives insight on why different frames of reference give different predictions and policy conclusions. At the end, implications and insights are drawn for LWE and the chapters that follow.

Because this chapter is the only one in the volume explicitly theoretical, and also because it seeks to integrate an extraordinarily large and diverse subject and literature base, the editor has generously allowed a lengthier-than-standard treatment.

The Employment Relationship as Theoretical Organizing Concept

As indicated above, the subjects of labour, work, and employment cover a very expansive and heterogeneous set of topics, institutions, levels of analysis, and social science disciplines, fields, and research programs. Economists focus on individual behavior in labour markets, sociologists on collective behavior through social structures and norms, political scientists on governance institutions and processes, industrial-organizational psychologists on individual differences in

personality, motivation, and learning, management researchers on controlling, directing, and engaging employees, industrial relations researchers on unions, laws, and other institutional forms of employment regulation, and labour process researchers on workplace dynamics of employer-employee control and resistance. Within and across each of these areas are different paradigms and ideological frames, such as rational actor, varieties of capitalism, comparative human resource management, radical political economy, French régulation school, feminism, institutionalism, classical Marxism, and transaction cost economics (Müller-Jentsch 2004; Wood, Brewster, and Brookes 2014).

One school of thought, often associated with historical institutionalism, is that LWE is so heterogeneous by topic and cultural context that trying to encompass it with some kind of integrative or overarching theoretical framework is an impossible task and perhaps with counterproductive consequences. From this point of view, it is vain to strive for a theory of LWE but quite feasible and productive to develop middle-range theories of delimited topic scope and cultural context within LWE (Kochan 1998; Hyman 2004). An opposing school of thought, typified by famous system builders such as Smith, Marx, Weber, and Schumpeter, holds that while no theory can explain all aspects of a subject or apply equally well to all societies and historical periods it is nonetheless possible to develop an encompassing theoretical system by identifying the phenomenon's fundamental components and operating logic and then work out its central tendencies and outcomes with tools of abstraction and deduction (Dunlop 1958; Hall and Soskice 2001; Burawoy and Wright 2003).

Both points of view have merit and the challenge for LWE researchers is to chart a course that steers clear of both the Scylla of a-theoretical description and empiricism and the Charybdis of vacuous grand theorizing. At the risk of tacking too close to Charybdis, I think it is both possible and desirable to build a larger, more encompassing theoretical framework for LWE and in what follows endeavor to do so. Although the major components of the framework are presented as generic to all economies with a substantial market sector, for-profit group of firms, and wage-labour workforce, the exposition, emphasis, and citations, while intendedly cross-disciplinary and cross-cultural, unavoidably reflect the author's North American, English language, and economics-industrial relations-human resource management background.

If LWE is to be more than a grab bag of topics, there has to be one or more features or concepts that serve as an integrating common denominator or intellectual hub of the wheel. Labour, in

the wage-labour sense used in this volume, represents the class of people in society who through labour market exchange earn the bulk of their income by renting their labour power to owners of capital who use it to produce economic goods and services for sale in markets. Work, in turn, is a synonym for labour power, meaning the energy and effort of physical, mental, and emotional kinds that the labour provider – the worker – commits to production. Employment is one of several institutional forms by which capital owners acquire labour power, in this case by entering into a contract of employment. Alternative methods to get labour services include slaves, family members, independent contractors, partners, and coop members. The employment contract creates a legal relation of employer and employee, or employment relationship, in which the capital owner(s) in exchange for a wage payment gain authority to direct and control the employee's work activities and set the work hours, conditions, and rules.

By itself, the subject of work seems too broad and devoid of historical and institutional specificity to serve as a conceptual foundation for LWE theory. The subject of labour, meaning the social class of wage-earners, is sufficiently delimited and historically and institutionally specific to permit theorization but not as a common denominator for LWE since it effectively excludes the employer/capital part of the subject. If LWE is going to have a common denominator concept, therefore, it must be the subject of employment and, more specifically, the employer-employee relationship (ER). The ER is historically specific to the last three centuries, starting in Europe (particularly Britain), is institutionally specific to the legal contract of employment, and includes both social classes of capital owners and labour owners as employers and employees. Further, the ER is certainly capable of theorization, as started by Adam Smith, carried forward by Karl Marx, extended by Emile Durkheim, Hugo Sinzheimer, and John Commons, and carried into recent years by a wide range of scholars across disciplines and countries (e.g., Harry Braverman, Ronald Coase, Alan Fox, Georges Friedmann, and Herbert Simon). The employment relation, as noted above, also subsumes the work component of LWE since it is the principal institutional device used in capitalist economies to obtain labour power for production.

The employment relation, like business firms, labour markets, social classes and other human-constructed institutions, can be theorized in different ways. As indicated above, the approach used here builds on the IR frames of reference model. Budd and Bhave (2008: 94) define a frame of reference as "how one sees the world" and more specifically as a "theory used to guide and

evaluate behaviors, outcomes, and institutions" with respect to the employment relationship. The frames of reference model originated with British industrial sociologist Alan Fox (1974). He divided employment relationships into three categories: unitarist, pluralist, and radical. Budd and Bhave, as earlier noted, add an egoist frame. They distinguish frames of reference based on four dimensions (p. 102): employer interests, employee interests, state interests, and key beliefs.

A modified version of Budd and Bhave's typology is presented in Table 1. Shown in the diagram is a 4 x 6 matrix with the four frames of reference as rows and six attributes as columns (adapted from Kaufman 2015a). The six attributes are, respectively: organizational vision, system analogy, behavior principle, interest juxtaposition, policy stance, and employee voice form. These six attributes, while different from the four distinguished by Budd and Bhave, are largely complementary but better suited for comparative analysis of alternative regimes of labour, work, and employment. Also, I have replaced the term egoist with individualist (first row).

The individualist frame is best represented in LWE by neoclassical labour economics (NLE). Reading across the row, the six attributes of the individualist frame are: free market (organizational principle), market system (system analogy), competition (behavior principle), harmoniously aligned interests (interest juxtaposition), laissez-faire (policy stance), and exit to the labour market (voice form).

The unitarist frame is best represented by human resource management (HRM). Reading across the row, its six attributes are: harmonious team, management system, cooperation, harmoniously aligned interests, business friendly policy, and bilateral communication and employee involvement.

The pluralist frame is best represented by traditional industrial relations (IR). Reading across the row, its six attributes are competing interest groups, governance system, negotiation and compromise, partial but delimited conflict of interests, institutional power balancing and democratization, and independent collective representation.

The critical frame is best represented in LWE by radical workplace sociology and Marxist political economy (RWS/MPE). Reading across the row, its six attributes are: capitalist monopoly,

exploitation system, conflict and class struggle, antagonistically opposed interests, replacement of capitalism, and workers' control.

The remainder of the chapter analytically models these four frames of reference and uses them to explain important LWE features, behaviors, outcomes, and political-ideological conflicts. The model has eleven components which are described in the next section. Together, they represent an employment relations system, as envisioned in different guises by writers such as King (1918), Dunlop (1958), Barbash (1984), Marsden (1999), Katz and Darbishire (2000), Amable (2003), Rubery and Grimshaw (2003), Kaufman (2004a, 2013a), and Verberg, Hartog, and Koopman (2007). Other complementary and insightful conceptualizations include varieties of capitalism (Hall and Soskice 2001), alternative business systems (Whitley 1999), regimes of workplace regulation (Bélanger, Edwards, and Haiven 1994), regimes of accumulation and wagelabour nexus (Boyer and Saillard 2002), and institutional regimes of governance (Streeck and Thelen 2005).

Levels and Components of an ERS

Shown in Figure 1 are eleven analytically distinct components of an employment relations system grouped into three distinct top, middle, and bottom levels. Because one set of diagrams is used to represent four different ER frames of reference, some components or features drop out or change form as the discussion shifts across frames.

The six diagrams in the middle level of Figure 1 represent the following ER components.

- Panel (1) depicts the labour market where companies go to hire people to work as
 employees and people go to find jobs with companies. The labour market establishes
 upper and lower bounds on wage (W) and employment (L) levels.
- Panel (2) depicts a multi-person organization with an employer as superior/boss who directs the employee(s) in the task of production (the person figure), represented by the production function in the bottom part, in return for paying a wage per time period. The combination of panels 1 and 2 represent the analytical heart of the ER the labour market where the ER contract is negotiated and labour power is commodified, the firm where the employer-employee relationship is enacted, and the labour process/production function where managers direct employees in production to

- maximize revenue contribution over cost and employees contingently provide labour power in response to inducements, threats, and situational circumstances.
- Panel (3) depicts the subjective assessment of both employer and employees of their juxtaposition of goals, interests and values, ranging from aligned win-win on one end to antagonistic lose-lose on the other with versions of win-lose in-between.
- Panel (4) depicts a series of labour-output curves and associated marginal products representing different levels of productivity generated in the organization's production process (assuming short-run capital K, natural resources N, and technology are given).
- Panel (5) depicts a model of the macro-economy such that the aggregate demand
 (C+I+G) and aggregate supply (45 degree line) schedules determine the nation's level of
 GDP, inflation, and employment/unemployment.
- Panel (6) depicts the extent of frictions, problems, and conflicts in the employment relationship and the resulting collective action response by employees. For simplicity, the two are assumed to vary together in the same direction (more problems/conflicts → more collective mobilization) and to be measurable as an index number starting at zero (the vertical axis).

In the top level of the ERS above the six diagrams are three layers of institutional superstructure. The roof represents the nation state, marked as Nation State at the apex, within which an ERS is embedded. The leaders and political-military institutions of the nation state possess ultimate sovereign power and thus through executive, legislative, and judicial decisions determine the underlying structural framework of the ERS, including resource endowments, property and human rights, power relationships, and opportunities and constraints for individual and group action.

The next ERS superstructure component is the box directly under the roof labeled National Context. It contains five groups of social structure determinants, marked as Social-Cultural, Legal, Technological, Institutional, and Development Stage. They represent nation state-level contextual and contingent factors that in the short-run can be considered largely exogenous determinants of the architecture and outcomes of an ERS.

The next-level box is marked Employment Relations Institutions. It contains employers and their collective associations, employees and their collective associations, employment and labour laws, and non-government organizations (NGOs) with an interest in labour/employment.

The bottom level of the ERS, located beneath the six diagrams, has two components that determine the nature of the LWE outcomes generated at the higher levels. The first part is a box marked Competing Social Interests, Values, and Welfare Objectives. The interaction of the six middle components determines LWE outcomes but whether individuals, private groups, and government leaders perceive them as good or bad depends on their normative perspective. In economics the normative evaluation lens is modeled as a social welfare function.

Also in the bottom level of Figure 1 is an ER frequency distribution, marked ER₁. The configuration and operation of the middle six components, conditioned by the bundle of rules, institutions, and norms in the top level, yield a set of outcomes from the ERS. These outcomes are normatively interpreted and evaluated in the welfare function box and through a social choice process are aggregated and rank ordered into an index of ER health & performance (H&P). The frequency distribution shows the proportion of firms, and associated number of employees, that locate, respectively, in the radical, pluralist, unitarist, and market individualist frames. (The last two coincide for reasons explained below.) The ER distribution may take any empirical form but for exposition is depicted as a normal distribution.

The diagram emphasizes structural ER components and determinants but each one is human-made and contains people endowed with complex personalities and psychological states, forward-looking calculative brains, consciousness and free will, and an amalgam of lower-level animal instincts and drives and higher-level human rationality and ethics. At the center of every ERS, therefore, is the human being both as individual and social group, per the human figure in the firm in the middle of Figure 1. All ERS outcomes, therefore, are a complex interplay of human agency and human-built social structure (Edwards and Wajcman 2005; Klerck 2014). The four ER frames of reference are partly distinguished by the relative importance given to agency vs. structure and the respective ways each are theorized.

Individualist Frame: Neoclassical Labour Economics

The individualist (egoist) frame is centered on utility and profit maximization, individualism, selfinterest (hence the egoist label), rational behavior, free markets, equilibrium, efficiency, and invisible hand social coordination (Becker 1976; Lazear 2000; Kaufman 2010a). The post-World War II (WWII) paradigm is most closely associated with the Chicago school of economics, and also the libertarian Austrian school, with roots in Adam Smith, Leon Walras, Carl Menger, and J.B. Clark. This frame is best represented in LWE by the neoclassical competitive demand/supply (DS) model of labour markets. This model is the foundational construct in modern NLE and serves as the base-line for theory and policy evaluation (Wachter 2012; Cahuc, Carcillo, and Zylberberg 2014), even though a large array of more complex and sometimes incommensurable models are built on top of it. Apropos to the concept of alternative employment systems, the NLE competitive trade model corresponds to a highly externalized, decentralized, unstructured, commodified, and fluid employment relationship built around free-flowing market trade, per the six attributes in Table 1. In the varieties of capitalism (VOC) literature, the NLE model represents the archetype of a liberal market economy (Hall and Soskice 2001); in the HRM literature it is the archetype of completely externalized firm-level employment system (Boxall and Purcell 2016).

A market individualist form of ERS is embedded within a nation state, denoted by the government roof over the system and the words Nation State at the peak. Each ERS reflects contextual attributes of the country it is embedded within, such as social-cultural heritage (e.g., African, Asian, European), legal framework (e.g., common vs. civil law), state of technology (e.g., laggard or leading edge), institutional organization (e.g., shareholder vs. stakeholder corporate governance, manufacturing vs. service industries), and stage of economic development (developing vs. advanced economy).

These contextual factors have a distinctly bifurcated role in the individualist frame. The elements in the National Context box are included as exogenous external factors that affect the configuration of national-level ERSs at the top of Figure 1 but are excluded from an active role in the operating core of the ER in the middle part (Solow 1990; Fleetwood 2006). The same bifurcation applies to the elements in the next-lower Employment Relations Institutions box, such as unions and labour/employment laws. Thus, in the individualist frame variation in contextual variables create 'varieties of ER systems,' such as between fast-food restaurants and universities and America and Germany, but the differences in structures and outcomes are largely explicable as rational economizing responses by firms, workers and other agents to contextual-induced variation in benefits and costs (Becker 1976; Williamson 1985; Coase 1992).

When contextual factors, such as labour laws (e.g., at-will vs. just-cause termination), technology (e.g., general vs. specific workplace skills), and social-cultural influences (e.g., individualist vs. collectivist norms), promote low search, transaction, and training costs, the ER system will resemble the fast-food and American models and when they are high the system will resemble the university and German models.

While context in the top part of Figure 1 creates differences in benefits and costs and, therefore, in architectures and outcomes, the middle part of the diagram containing the internal operating core of the ER, particularly panels (1) and (2), is generic and universal in the individualist/NLE frame (Lazear 2000). That is, a theory of the employment relation starts with three baseline components: a model of the human agent (rational actor, such as the human figure inside the firm), labor market (competitive model of demand/supply), and firm (neoclassical production function). In an empirical context, therefore, the individualist frame predicts that ERS outcomes and behaviors follow uniform first-order tendencies but contingent and contextual attributes may modify the size of hypothesized main effects but not their directions (Cahuc, Carcillo, and Zylberberg 2014; Gunderson 2017). This frame of reference, therefore, is a universalistic-type theory, or 'contingent universalistic.'

The individualist frame also adopts a very sparse and limited role for government at the roof level of the model (Hayek 1944; Friedman 1962; Posner 2011). The purpose of the government in this frame is to maintain order, enforce contracts, correct market failures (e.g., externalities), and provide public goods (e.g., defense). This night watchman, laissez-faire version of government represents the neo-liberal ideal of a free-market economy, denoted in the diagram by shrinking the roof to a pencil-thin line. Inside the ERS, the individual frame is essentially structure-free. This high-level abstraction is partly a modeling strategy that trades drastic simplification for analytical tractability, partly an assumption that maximizes the size of economic trading space under the roof (another element of neo-liberalism and, also, methodological economic imperialism), and partly a prerequisite for mathematical conditions of continuity and completeness which allow flawless invisible-hand price coordination of production and labour exchange (ideological/policy underpinnings for neo-liberalism/laissez-faire). These simplified assumptions have allowed economists to mathematically work out perhaps the crowning proposition of their science, known as the first fundamental welfare theorem (aka invisible hand theorem). It shows that a competitively-organized economy

achieves through a decentralized price system the best attainable coordination and allocation of resources (Mas-Colell, Whinston, and Green 1995). Examples include the ideal matching of workers and firms in employment relationships and efficient and fair wages, hours, and conditions. The policy implication is that "more competition is better" and in the ideal ERS "optimal competition = 100%" (Kaufman 2103b).

More realistic assumptions are, of course, selectively introduced in more complex NLE models, such as bounded rationality, market imperfections, firms' organizational structure, trade unions, families, gender norms, and fairness, thus going some way toward putting social structure back into the operating core of the ERS. Social class in its sociological sense, however, is rarely considered, although one can argue it is implicit when economists divide the economically active part of the population into, respectively, suppliers of capital, labour, and land (Roemer 1982; Kaufman and Gall 2015).

Given the optimality of perfect competition, economists typically take a skeptical-to-critical view of real-world ERS institutions and social structures, seeing them as obstacles to efficient trade (e.g., Addison and Hirsch 1997; Boeri and van Ours 2008). The less-critical view (e.g., Williamson 1985; Coase 1992) regards socio-institutional structures as second-best efficiency adaptations to ineradicable imperfections and scarcities in nature (e.g., bounded rationality \rightarrow concern with fairness norms; asymmetric information \rightarrow opportunism in employment contract performance; externalities \rightarrow inefficient levels of workplace injuries and health). The more-critical view (e.g., Buchanan (1991) in public choice economics, Posner (2011) in law and economics) regards them as human-made restrictions (e.g., unions, minimum wage laws) typically secured by special interest groups to promote anti-social rent seeking and income redistribution.

The second part of the individualist ERS is comprised of the six diagrams in the middle of Figure 1. Panel (1) is the competitive DS labour market and panel (2) is the firm or, more generally, a profit or non-profit organization producing economic goods and services. Economists typically locate employment relationships in the labour market where labour buyers (firms) and labour sellers (workers) agree to an employment contract with certain formal and informal understandings about the wage and ancillary terms and conditions. In the ideal world of perfect competition, every grade of labour exchanges for the same price, like units of wheat on a commodity exchange, and any heterogeneity in work conditions or job preferences is arbitraged into a pattern of compensating wage differentials (Addison and Hirsch 1997; Cahuc, Carcillo, and

Zylberberg 2014; Gunderson 2017). Jobs with more dangerous work conditions or unattractive work schedules, for example, have to pay a higher wage (ceteris paribus) to induce people to take them while a job-seeker without previous work experience or wanting on-site child care has to be willing to work for less.

Whatever the case, the forces of competition are sufficiently keen, particularly given some time for adjustment, that DS effectively determine the number of employment contracts and their substantive content. In panel (1), the demand and supply curves, like the government roof, are drawn as pencil-thin lines but, in this case, to illustrate they are super-tight constraints that set the wage/employment package exactly at W_1/L_1 . (Ignore for now the DS bands and kinked part of the supply curve.)

The competitive market outcome is efficient, meaning that unobstructed trading has exhausted all possible gains from buy/sell exchange. The obverse implication of continuous trading is that employment relationships are extremely short-term as employers and employees constantly seek out better deals, particularly if DS curves frequently shift in reaction to new events. Nonetheless, in economic theory it is precisely the flexibility of wages and mobility of labour that keep both micro and macro labour markets tending toward full-employment equilibrium (where D = S). Another feature of the ER in the individualist market model is that, since agents are a-social egoists and consider only their self-gain (pecuniary or non-pecuniary), considerations of equity, reciprocity, and fair treatment do not affect decisions and behaviors of managers and workers in their employment relationships (an implication of the second fundamental welfare theorem; Mas-Colell, Whinston, and Greene 1995). Nonetheless, proponents claim that competitive markets ensure equity and fair treatment (Posner 2011). One reason is that people keep re-contracting until everyone is satisfied that they have obtained a fair deal; a second is that at equilibrium the wage earned by each type of labour equals its value contribution to production which, by the standard of 'marginal productivity justice' means workers are fairly paid with no exploitation (Budd 2004). If efficient labour market trades are impeded by market imperfections or failures (e.g., externalities, imperfect information, mobility costs), the appropriate policy response is not to encourage more unions or enact more laws to restrict the market but look for ways policy can help eliminate the imperfections and failures (e.g., reduce externalities by fill in missing property rights) so the market more closely approximates the competitive idea.

The NLE model includes a theory of the firm but it too is quite abstract, in part because it serves largely as an adjunct to the theory of the price system (Demsetz 1991; Coase 1992). Panel (2) depicts the firm as an organizational hierarchy with boss (CEO) at the pinnacle and lines of authority going downward to subordinate managers (e.g., HR staff) in the middle and production workers (the human figure) at the bottom in the rectangle part containing the production function and labour process. However, all of these details -- except the production function -- shrink-to-disappear in the NLE competitive employment system. The organizational hierarchy and associated internal labour market (ILM) inside the pyramid exists as a matter of realism but are porous and non-consequential since all wages and conditions are determined in the external labour market (ELM) and transmitted to managers who then make efficient personnel decisions (Lazear and Oyer 2004). The borders of the firm, therefore, shrink from a thick band to a thin and permeable line.

Likewise, because labour L is modeled for analytical purposes as if it is like other inanimate commodity inputs (Addison and Hirsch 1997), and also because the perfect information assumption allows complete employment contracts, every unit of labour time L maps into a one-to-one equivalent of work effort (e), thus making L = L(e) and allowing the human figure to drop out of the production process in the bottom part of the firm. The production function therefore yields a deterministic average and marginal product of labour. Coupled with the law of diminishing returns and competition in product markets, the deterministic marginal product yields a well-defined downward-sloping labour demand line in panel (1). The downward slope of the labour demand curve (higher wage, lower employment, other things equal) is a fundamental proposition known as the law of demand (Wachter 2012). The law of demand underlies economists' skepticism-to-opposition toward labour laws and unions because they raise the cost of labour, lead to reduced employment and output, and harm national competitiveness (Freeman and Medoff 1984; Booth 1995; Posner 2011; Bennett and Kaufman 2007).

Panel (3) depicts the four subjective relational states between employers and employees: lose-lose, lose-win, win-lose, and win-win. Since a competitive market ensures both efficiency and fairness, the equilibrium relational state in the individual frame is win-win. If win-win is not the case, agents in a sub-optimal state move to a different employment relationship until, as noted earlier, all gains from trade are realized.

The productivity generated by the employment relationship, measured as Q/L, is an important determinant of micro-level firm performance and macro-level real wages and international competitiveness. The relationship between labour input L and output Q in the individualist frame is illustrated by the productivity curve q_1 in panel (4). Holding capital constant in the short-run, adding more labour hours increases production but at a diminishing rate along q_1 . The equilibrium employment level L_1 determined by DS in panel (1) maps into an output level of Q_1 in panel (4). Because production is entirely a technological relationship and labour is a commodity, the relationship between changes in input and output is determinate, giving rise to one unique output curve (implying curves q_2 and q_3 disappear in this model).

Many dimensions of the employment relationship are also affected by the state of the national economy, such as level of aggregate output, employment and unemployment, inflation, and cycles of boom and bust. At a point in time, national output is determined by aggregate demand and supply, as illustrated by the Keynesian-cross model in panel (5). NLE theory shows that in a perfectly competitive economy flexible prices (including wage rates, interest rates, etc.) guide the economy to full-employment equilibrium. Thus, the C+I+G schedule (aggregate demand line) intersects the 45 degree line (aggregate supply line) at the full employment output level Q₁. Even at full employment, however, some frictional unemployment exists from turnover and job search. Shocks to aggregate demand, represented in panel (5) by an upward or downward shift of the C+I+G line, cause short-run cyclical movements in output, employment, and unemployment but the system is self-regulating since flexible wages and prices restore equilibrium, including full employment in the labour market -- absent government and union distortions and other wedges (Lucas 1987; Cahuc, Carcillo, and Zylberberg 2014).

Aggregate measures of employment, unemployment, productivity, and real wages are only a subset of important performance indicators germane to evaluation of the employment system; also included are many other indicators that in some way affect human welfare. Examples include work effort, hours, and injuries; cost and quality of production; job satisfaction; and formal and informal types of conflict. The NLE model claims that a largely unregulated competitive market type of employment system scores very high on performance and low on problems because it generates outcomes that are not only efficient and presumptively fair but also consistent with the maximum of freedom and self-initiative among employers and workers (Friedman 1962; Posner 2011). If workers want a pay raise or think their boss is unfair, they do

not need a union or law to correct the situation but take individual initiative and search for a better job ('voting with their feet').

An ERS matching the individualist model of perfect competition has zero frictions, conflicts, or inequities and, hence, the labour problems line in panel (6) coincides with the horizontal time axis (scaled in years). More realistically, short-run frictions and failures in markets and organizations, such as externalities and principal-agent problems, along with distortions introduced by government, unions and other institutions, generate a moderate amount of labour problems in the short run and some cyclical rise and fall in labour problems over time (e.g., since government and unions rigidify wages and cause business cycles via panels 1 & 5). However, competitive forces gain extra traction over time and, hence, these problems should trend downward, illustrated by the employment problems curve EP₁ (ignoring the other curves). Similarly, on the assumption employee collective action is spurred by the breadth and depth of employment problems, as employment problems are small-to-moderate in the short-run and trend downward in the medium-to-long-run it follows that indicators of collective action (and the need therefore), such as unions, strikes, labour political involvement, and legal regulation, also chart an irregular downward path given by EP₁.

These six diagrams, with the minimalist neo-liberal state and regulatory regime located above them in the figure, describe the structure, operation, and outcomes of the employment relations system in the market individualist frame of reference. The active force coordinating and moving the system is competition in markets and self-interest of agents, giving it a very mechanistic, self-regulated, individualistic, institutionally unstructured, and laissez-faire orientation. Under highly competitive conditions, employment relationships in this frame are transient, impersonal, and transactional. However, as labour market imperfections and contracting costs become larger, such as from firm-specific job skills, large search and hiring costs, and inflexible administered wage systems in ILMs, the volume of turnover declines, the length of employment relationships rises, and the market loses some of its efficiency edge (Williamson 1985).

The six diagrams are a positive science representation of how labour markets and employment relationships work and yield predictions about empirical outcomes. If the outcomes match the predictions, we can say the results are good for the theory but this still leaves unanswered the larger question whether they are also regarded as good by the people in the ERS who

experience them. Judgements of good vs. bad and desirable vs. undesirable are inherently normative and turn on people's individual and collective goals, interests, values, and social welfare criteria. Free trade in laissez-faire labour markets, for example, appeals more to people who place a high priority on self-initiative, individual responsibility, and personal freedom; people who value secure long-term jobs, gender equality, and communitarianism, on the other hand, will regard free markets and neo-liberalism/laissez-faire as unappealing . Similarly, economists make allocative efficiency, gains from trade, and wealth maximization the principal welfare criteria for evaluating ER health and performance (Posner 2011; Wachter 2012) but behind these assumptions are often-neglected questions. For example, one has to ask 'efficiency for who?' and recognize that the efficiency benefits of free market trading in labour may benefit people in their roles as consumers, shareholders, and company executives by making labour costs low and flexible but at the same time harm the interests of people in their roles of employees, families, and members of a prosperous middle-class (Samuels and Schmid 1981). Similarly, efficiency may be one important social objective but many people in society also want to include other objectives, such as fair treatment, democratic rights in the workplace, and satisfying jobs (Budd 2004).

Without going into further detail, the outcomes of the ERS in the six diagrams in the middle follow the downward arrow to the box marked Competing Social Interests, Values, and Welfare Objectives. Within this box, the ERS outcomes get normatively evaluated by each person and put into a low-to-high rank ordering, represented here as a summary measure of ER health & performance. Then, using some social choice process and set of relative weights, an aggregate H&P score can be calculated and graphed as a frequency distribution, such as ER₁ in the bottom diagram in Figure 1. The shape and location of the ER frequency distribution is an empirical question but, for illustrative purposes, is shown in Figure 1 as a normal distribution with a left-hand tail ending at the lowest, worst-quality H&P score, the peak of the curve at the average quality level of H&P, and the right-hand tail ending at highest, best-quality H&P workplace.

The ER frequency distribution can be used to represent the four frames of reference (Kaufman 2015a). ERs in the critical frame have the lowest health and performance and therefore group in the left-hand tail, as marked in the diagram. The middle of the ER continuum, say one standard deviation on both sides of the mean H&P score, represents the pluralist frame. Then in the right-hand tail are the individualist and unitarist frames, both with highly-ranked H&P workplaces.

Points A and B mark workplaces that are on the boundary line of critical-pluralist and pluralist-individualist/unitarist frames, respectively. The ER frequency distribution, including its shape and proportion of firms in each of the four frames, will vary across population groups within a nation's ERS, such as employers vs. employees, among industries and occupations, and nonunion vs. union, and will also vary across nations and world regions. The distributions will also shift with the passage of time, moving rightward with rising H&P scores and leftward with deteriorating scores.

To economists, a virtue of a free market system is that it provides strong pressures and incentives for all resources, including labour, to be used as efficiently as possible (Boeri and van Ours 2008; Wachter 2012. Firms that have low H&P quality scores are likely to have more turnover, less employee motivation, and higher production costs and must either improve the operation of the firm and its HRM practices or go out of business. Over time, therefore, market competition gradually selects out the firms at the bottom end of the distribution which can't or won't improve their ERs while motivating the remainder to find ways to move up the continuum.

As competition keeps nibbling away the bottom end of the ER curve, and incents remaining firms to move upstream, over time the entire frequency distribution shifts rightward such that the critical frame group of workplaces gradually disappears and then the same happens to the pluralist group. In long-run competitive equilibrium with homogeneous firms and workers, the ER distribution collapses to a single mass point at the end of continuum where every resource and employer-employee person has been allocated to their best possible ER position (Kaufman 2010b). The degeneration of the normally distributed short-run ER curve into a single long-run mass point centered at best ER H&P means that, as predicted by first welfare theorem, markets are able to sort the diverse agents in the ER with conflicting goals, interests and values into an equilibrium configuration which with no command or compulsion achieves through an invisible hand the highest attainable level of ER performance (Wachter 2012).

Needless to say, these insights and predictions rest on a skeleton of abstract assumptions which strike many non-economists as much too simplistic and incomplete. The response of NLE defenders is three-part (Gunderson 2017). First, a model of an entire ERS is not analytically feasible without severe abstraction. Second, the model, they claim, successfully explains and predicts important ERS outcomes and tendencies. And, third, do the critics have a better model?

Unitarist Frame: Human Resource Management

The second frame of reference is Unitarist, as best represented in LWE by the field of human resource management (HRM) and, in particular, the version of HRM which originated in American business schools in the early 1980s. Since then the HRM model has spread across the world, albeit with lesser uptake and greater contextual-pluralist modification with distance from the American national context (top-level box in Figure 1). Intellectual pioneers of the unitarist frame include Frederick Taylor, Hugo Munsterberg, Elton Mayo, and Kurt Lewin (Wren and Bedeian 2009; Kaufman 2003, 2014a).

HRM started in the early 1900s as a largely administrative and technique-driven function built around an amalgam of scientific management, industrial welfare work, personnel administration, labour law, workplace safety, and vocational education (Kaufman 2008, 2014b). HRM acquired an intellectual and scientific core only slowly with pre-WWII contributions from law, economics, sociology, and industrial relations; after WWII and particularly in America these areas tended to fade and the unitarist character of HRM became more pronounced as human relations, industrial-organizational psychology, organizational behavior, and business strategy became dominant idea sources. The HRM field also expanded its subject area from functional employee management practices and programs to the "science and practice that deals with the nature of the employment relationship" (Ferris et al., 1995: 1).

The core of the employment relationship in the unitarist frame centers on the middle part of Figure 1 and, in particular, the labour market in panel (1) and firm in panel (2) where ERs are formed and enacted. In this respect HRM follows NLE; however, HRM reverses NLE's analytical priority and shifts the focus from individual competition and exchange in labour markets to team cooperation and production in firms. Another difference is that theory in HRM is less developed and analytically represented. But HRM also has common features with NLE. Both frames, for example, have a strong universalistic core, treat the social-institutional-political superstructure at the top of Figure 1 as mostly exogenous context, and predict gradual convergence across countries and over time toward best-performing ERSs.

Among LWE researchers, the largely non-contextual nature of HRM and disregard for political economy dimensions of employment relationships has been most highlighted and critiqued by writers in Europe from within the HRM field (Legge 2005; Brewster and Mayrhofer 2012) and

also outside, such as labour process, industrial relations, and critical management (Thompson 2011; Alvesson and Willmott 2012). The core model in mainstream HRM, for example, links high-performance work practices (HPWPs) to superior firm performance, with HPWPs typically defined as high-commitment/mutual-gain employee management practices embedded in well-developed ILMs (e.g., teams, employee involvement, gain-sharing pay, employment security). The connecting theory links from HPWPs to firm performance are provided by the resource-based view (RBV) of firms, ability-motivation-opportunity (AMO) framework, human capital concept, and HPWP strategic complementarities (Boxall and Purcell 2016).

The core hypothesis deduced from the HRM model is Δ Firm Performance/ Δ HPWPs > 0, which has a bottom-line implication across companies and countries of 'more advanced HRM is better' (Huselid 1995; Paauwe, Guest, and Wright 2013; Kaufman 2015b). This universalistic proposition is frequently modified with contingent and contextual factors inside and outside the firm so the unitarist ERS achieves better second-order fit and alignment. If theorization goes one step further, firms can be modeled as an ideal 'perfect organization' similar to an ideal 'perfect labour market.' In the latter case (as described above) the fundamental proposition strengthens to "optimal competition in ELMs = 100%" so by parallel reasoning the converse for a perfect organization is "optimal cooperation in ILMs = 100%." Since both propositions cannot be true at the same time, the implication is that the individualist and unitarist frames, because they work out theoretical predictions with an ideal representation of only one-half of the ER market-firm institution (ideal ELM and ideal ILM), have mutually deep contradictions that lead to biased or perhaps false hypotheses about important ERS characteristics and outcomes.

The HRM model is an exemplar of the unitarist ER frame because its driving supposition is that the owners and executives/managers of firms can design organizations and their management, production, and HRM systems so that the two sides of the ER feel like members of the same team with common interests in making the firm as successful as possible (Beer and Spector 1984). In the HRM gestalt, traditional methods of scientific management, personnel management, and industrial relations rely on heavy-handed command-control management, a thicket of bureaucratic rules and procedures, an adversarial 'we vs. them' approach to dealing with employees, tight supervision of workers put into narrow unchallenging jobs, and straight-time hourly wages with no reward or incentive for extra effort. The predictable outcome is an employer-employee relation high on opposed interests, conflict, and distrust and low on

cooperation, effort supply, and organizational commitment (Walton 1985). The purpose of HRM, therefore, is to guide companies on how to (re)construct the architecture of the people management system and employer-employee relation so common interests and energetic cooperation replace opposed interests and sullen resistance.

Looking at Figure 1, HRM largely operates at the company, workplace, and individual manager/employee level of analysis. Thus, even in strategic HRM, the field's highest level of analysis, the political economy dimension of LWE at the top of Figure 1 is typically abstracted or omitted. On one hand, no model or theory can reasonably include all levels of analysis or take into account all potential independent variables. Critics, on the other hand, point to the substantial neglect of the top level of superstructure in mainstream HRM as a potentially strategic flaw because political contestation by classes and interest groups, embedded in historical state traditions, determine the structure and rules of the economic game and employment relation, size and influence space for independent unions and collective vs. individual bargaining, and whether the nation has a neoliberal or social welfare employment regime.

Thus, the configuration of the political-social-institutional superstructure at the top of Figure 1 may introduce not only second-order contingent variation in the HPWP \rightarrow firm performance relation but so alter the ERS that the predicted positive main effect disappears or goes in the opposite direction (e.g., Δ Performance/ Δ HPWP < 0, or \approx 0). For example, is the set of HPWPs in the denominator well defined in Europe with sectoral-level collective bargaining, enterprise-level works councils, mandated training and apprenticeship programs, and tight restrictions on employee layoff and termination? Even if the concept of HPWPs is well-defined, does a full complement of HPWPs really lead to higher performance, say, in garment factories in Nicaragua, electronics factories in China, and fast-food restaurants in the USA?

The active components of the unitarist/HRM frame are in the middle part of Figure 1, although even here certain elements, such as the macro-economic environment in panel (5), are typically left in the background. The superior performance of a management-directed HPWS comes, in the HRM view, from fostering in panel (2) a long-term, mutual-gain ER where high trust and cooperation, human capital investment, and committed employees with low turnover and high work effort lead to high efficiency and happy shareholders, customers, managers, and employees. Following the resource-based view (Barney 1991), firms generate high productivity

and profits, not by constant labour trading and paying the lowest wage the market allows, but by making labour a unique, valuable, and hard to duplicate human capital asset in the form of a highly motivated, empowered, and skilled workforce. In effect, the L(e) term in the production function, centered in the worker-turned-human resource figure, becomes the strategic point of leverage and HRM becomes the managerial activity responsible for creating and aligning the employment system to maximize this advantage through HPWP-type staffing, training, compensation, involvement, and evaluation programs.

To successfully operate a high performance system, firms need to shift from a hire/fire external market system to a high-involvement internal development system. To do this, the production system in panel (2) is largely shielded from market forces by a strong ILM. In effect, with a strong bottom-to-top ILM the walls of the firm change from very thin and porous (the pencil thin line) to relatively thick and impermeable, particularly in the short-run and above the bottom-most entry job level (the thick bands). Within the ILM, coordination, motivation, training and compensation of labour are no longer primarily done by market DS but by management and administration, particularly as organized and practiced by the HRM function. The HRM function's responsibility and source of value-added is to ensure that the HRM architecture and bundle of practices is aligned with the firm's business strategy and is internally aligned to gain maximum synergies from complementarities among individual HR practices (Paauwe, Guest and Wright 2013).

The HPWS in panel (2) creates a unity of interests between employers and employees and all work together as a highly committed team to grow the financial pie for the firm because all expect to benefit. This expectation, if mutually honored by management and employees, transforms the ER from a low-productivity/high-conflict relation trapped in the lose-lose/negative-sum cell in panel (3) to a high-productivity/high-harmony relation in the win-win/positive-sum cell.

Panel (4) explicitly shows the positive productivity effect of a unitarist ER. In the NLE frame, the combination of a technologically-deterministic production function and homogeneous commodity labour yields a unique output curve, such as q_1 in panel (4), and a unique, single-valued output level, Q_1 . With human labour and incomplete employment contracts, a given level of rented employee labour time, such as L_1 , can translate into widely divergent inputs of labour power L(e), such as employees loafing on the job (output curve q_2) or fully engaged

(curve q_3). Proponents of HRM believe the critical flaw in the market individualist frame is that the ER gravitates to the lose-lose cell in panel (3) because high turnover and self-interested buy low/sell trading mentality undercuts trust, cooperation, and effort supply, putting firms on the low productivity curve q_2 in panel (4). The unitarist HRM frame, on the other hand, is called a high-performance work system because it shifts the ER to the win-win cell in panel (3) which through high cooperation and effort supply shifts the output curve upward to q_3 in panel (4) – resulting in a gain of Q_3 - Q_2 output for the same L_1 number of employee work hours.

The HRM frame largely omits the macro-economic environment, such as business cycle and unemployment rate, as an active factor in its model of ER health and performance – parallel with its minimalist attention to the external labour market in in panel (1) (Kaufman 2015b). The lack of attention to economic forces and pressures outside the walls of the ILM, and the tensions that arise from employees' status as a disposable rented human capital commodities, may be viewed in a positive light as a useful ceteris paribus clause for a model focused on internal organizational structures, management practices, and individual differences in employee behavioral responses. Viewed more critically, this omission begs several important questions. Why, for example, would firms in an economic recession or period of high unemployment find it profitable, or financially feasible, to invest in job security, above-market pay/benefits, and other high-road HPWPs when workers are far more inexpensively and powerfully motivated by the low-road threat of job loss? Similarly, how can firms maintain a unity of interest with employees if a slump in sales and vanishing profits force layoffs and wage/benefit cuts?

The last part of the six diagrams in the middle of Figure 1 is panel (6), the trend and cycle line in employment problems and collective labour action. Although the logic fundamentally differs between NLE and HRM frames, both paradigms predict a downward trend in ER problems and conflict (equivalently, an upward trend in capital-labour harmony and cooperation), such as depicted by line EP₁. In the NLE frame, competition winnows out inefficient, poorly managed firms, leading to convergence on best (most profitable) ER practices; in the HRM frame it is less the negative threat of being selected out by competition and more the positive opportunity to gain higher productivity and profit through adoption of high-performance work practices that leads to high-road convergence and steady drop in employment problems and negative relations (Huselid 1995). This expectation of automatic improvement in employment relations,

whether from the invisible hand of the market or visible hand of enlightened management, leads in both NLE and HRM frames to skeptical-to-opposed stance toward government regulation of markets, firms, and employment relationships. In HRM, labour unions, labour laws, and social safety net programs are typically presented as existing realities that firms need to effectively manage but with the implication that good management makes them largely unnecessary and, thus, harmful to efficiency and competitive advantage (Guest 2007).

The unitarist frame ends with the bottom part of Figure 1. HRM is openly normative and prescriptive since it counsels firms on methods of good management, techniques to achieve positive employee relations, and HRM practices that lead to high performance. Terms such as 'good,' 'positive' and 'high performance,' however, only gain substantive meaning when evaluated in terms of their effect on the goals and wellbeing of one or more of the ER stakeholders. In the case of HRM, the primary normative objective is enhancing firm performance, such as efficiency, productivity, profit, and asset appreciation for shareholders, with other stakeholders' interests given secondary priority or omitted altogether (Huselid 1995; Boxall and Purcell 2016). To significant degree, therefore, HRM resembles NLE in that labour is modeled as a factor input -- albeit a human one per the terms human resource and human capital -- and instrumental means to a financial end for owners and managers. Paradoxically, by this standard a 'high-performance' workplace could mean a sweatshop if it yields highest productivity and profit for shareholders. HRM advocates discount this possibility, however, based partly on the mutual-gain logic of a commitment strategy and partly on empirical evidence from meta-analysis studies that superior financial performance is associated with greater use of HPWPs (Combs, Liu, Hall, and Ketchen 2006; Paauwe, Guest and Wright 2013).

The last sentence leads to the bottom diagram in Figure 1, the frequency distribution of ER health and performance. As in NLE, at a point in time companies and workplaces fall along a wide continuum from worst-to-best employers and terrible-to-great places to work, tracing out a curve such as ER₁ (empirical examples shown in Kaufman and Miller 2011: Figure 1; and Kaufman 2015a: Figure 1, for employee voice). The combination of global competitive pressure and opportunity to increase profit continually pushes and pulls company owners and executives to find more productive/efficient ways to manage employees and create positive, cooperative employment relationships. At a micro level, therefore, individual workplaces and companies gradually move rightward along a given ER distribution, leaving behind old command and

control management styles and alienating, disempowering employment practices and moving toward new high-commitment, mutual-gain HPWPs. At the macro level, firms across the economy – and across the world -- gradually shift from low-performance to high-performance work systems, causing the ER distribution to shift rightward with convergence on employee management best practices, perhaps with some second-order contextual variation. Given enough time and absence of frictions, the ER distribution converges to a single mass point at the 'best ER' end of the continuum.

This optimal outcome is the same as predicted in the individualist frame but accomplished by the visible hand of management rather than the invisible hand of the market (Kaufman 2010b: Figure 2). The equivalent efficiency of ideal price-coordinated markets and management-coordinated firms was discovered in the Socialist Calculation debate of the 1920s-1930s and is consistent with a broad and institutionally neutral interpretation of the microeconomic first welfare theorem, per Lenin's conceptualization of the national economy under central planning as one giant factory (in effect, USSR Inc.) with a nation-wide ILM and HRM system directed by the Ministry of Labour (Stiglitz 1994; Kaufman 2013b).

Pluralist Frame: Industrial Relations

The third employment relationship paradigm is the pluralist frame of reference. It is best represented in LWE by the industrial relations (IR) field. Intellectual pioneers include Lujo Brentano, Sidney and Beatrice Webb, John Commons, W.L.M. King, Max Weber, and John Dunlop. The founding and intellectual/policy programs of the IR field and International Labour Organization (ILO) are also closely connected (Kaufman 2004b).

The word 'plural' means more than one. In the context of the employment relationship, the pluralist frame emphasizes that employers and employees can never become so united by common purpose and shared rewards that they meld into a unitary stakeholder. Rather, the pluralist perspective is that managers and workers inevitably come to the workplace with varying degrees of common and conflicting interests and mixed incentives to cooperate as a team and take advantage of the other for self-gain. (Kochan 1998; Bélanger and Edwards 2007) Complicating the problem is that the owner-manager typically possesses a power advantage relative to the individual worker in both ELM wage bargaining and ILM governance. The pluralist challenge, therefore, is to restructure the ERS so employees get the fair wages, democratic

rights, and workplace protection they deserve while at the same time trying to expand the area of common interests and mutual-gain incentives in the face of turbulent markets, pressure of shareholders and banks for more profit, and employees' distrust of management's motives and promises. Instead of viewing the ERS as a market system like NLE or a cooperative team organization like HRM, IR looks at the ERS as a multi-layered governance system (Table 1) with employees valued not only for their labour input and profit contribution but also their intrinsic worth as human beings and citizens endowed with inalienable rights in both the nation state and workplace (Webb and Webb 1897; Commons 1921).

More so than NLE and HRM, IR gives attention and explanatory importance to the politicalsocial-institutional superstructure in the top part of the ERS in Figure 1. The core institution in industrial relations is the employment relation and, indeed, when the field formed in the 1910s it was widely conceived as the study of the employment relationship as a socio-economic-legal institution (King 1918; Kaufman 2004b). (The term 'industrial relation' in the English language in the early 20th century was used as a synonym for employment relation.) Thus, the heart of the field is located in the middle part of Figure 1 and, in particular, the combination of labour market in panel (1) and firm in panel (2) where every employment relation is located. However, while NLE and HRM nominally subsume both labour market and firm in their theoretical corpus, in practice they treat only one as an active explanatory force, thus in effect creating a partial equilibrium-type model of the ER. The IR field, on the other hand, seeks to connect and integrate the separate logics of market and firm, and also add the logic of workplace social relations (Solow 1990; Baron and Kreps 2013), so all three simultaneously interact in the ER, in effect creating a cross-disciplinary three sector general equilibrium-type ERS model. (Commons 1934a attempted this three sector ER model by bringing together markets as bargaining transactions, firms as managerial transactions, and social relations as a social/behavioral model of the human agent.) As described below, by joining the separate logics of markets and firms and exchange and production, the IR frame – like the critical frame to follow – comes to the conclusion that the ER contains contradictory forces and destabilizing tendencies that lead to not only deteriorated and poor-performing employment relationships but a dynamic toward system-threatening conflict and crisis (Hobson 1923; Douglas 1935; Streeck 2014). Unlike radical/Marxist proponents of the critical frame, however, IR proponents are more optimistic that the contradictory structural parts of the capitalist ERS can be institutionally reengineered and reformed to much reduce its dysfunctional and anti-social dimensions and much increase its positive, pro-social performance. Emblematic of the progressive, reformist ethos of the early IR pioneers, institutional economist John Commons (1934b) remarks that his career was devoted to "saving capitalism by making it good" (p. 143) and his strategy was to "regulate but not destroy the system" (p. 118). (The Webbs, in contrast, shifted after WWI from the pluralist-critical border to solidly in the critical frame, per their trenchant condemnation of capitalism in *Decay of Capitalist Civilization* (1923)).

Besides capturing the normative spirit of mainstream pluralist industrial relations, these quotations helpfully illuminate why IR as a research program gives much more attention than HRM or NLE to the ERS superstructure at the top of Figure 1. The intellectual roots of industrial relations are in law, sociology, and economics and, in particular, the parts of those fields that focus on the role, structure, and operation of institutions both formal and informal (Ackers and Wilkinson 2008; Cullinane 2014). The employment relation, for example is an institution as are individual components, such as markets, firms, families, unions, governments, and social norms. Each institution is created and maintained by groups of people who find participating in it promotes their interests and wellbeing, so even though institutions are inanimate entities they nonetheless have an organic, functionalist dimension infused by the shared goals and actions of their human members. All institutions also create an authority, power, and status hierarchy with levels of rulers and ruled, such as prime minister and voter, corporate CEO and employee, union president and production-line member, and patriarchal husband and subordinate wife.

The science of industrial relations therefore studies an ERS as a system of mutually interacting, hierarchically arranged institutions that operate by separate logics, rules, and conventions (Dunlop 1958; Storper and Salais 1997; Kaufman 2004a; Morgan and Hauptmeier 2014). A national-level ERS is thus a cascading series of institutions-within-institutions. The ERS starts at the highest, most encompassing level of governance in Figure 1, the sovereign nation state. Economists may say 'assume a competitive labour market' or management researchers may identify a list of HPWPs but neither can exist or operate without a network of enabling government laws, regulatory frameworks, and social capital investments. For this reason, government has a larger role in IR, illustrated in Figure 1 by expanding the pencil-thin government roof to a thick band (Hyman 2008). The same emphasis applies at the second and third levels of ERS superstructure where component institutions, such as independent unions, employers' associations, and social welfare programs, have their size and structure shaped from

above by the sovereign state and, in turn, extend their influence downward to the six diagrams at the middle level, such as transforming an individual-bargaining/neoliberal ER system into a collective-bargaining/social welfare system (Esping-Andersen 1990; Crouch 2014).

Quite apart from the influence of superstructure, the pluralist/IR frame also modifies a number of features about the six ER diagrams in the middle part of Figure 1. As indicated above, IR spans and integrates NLE and HRM by opening up the workings and outcomes of the ELM and ILM sides of the employment relation to greater mutual interaction. Perhaps the most important consequence is that the ER system becomes a contradictory and unstable mix of price coordination of labour in markets and management coordination of labour in firms with imperatives that go in opposite directions with no ready reconciliation (Kerr 1977; Dunlop 1994; Storper and Salais 1997; Kaufman 2010b). For example, markets perform better with flexible wages and high turnover, firms perform better with stable wages and low turnover, and the ERS contains no automatic adjustment mechanism to equilibrate them.

Another effect of the market-firm dualism is to introduce more plasticity, indeterminacy, and room for discretionary action in the operation of both labour markets and firms, illustrated by broadening, respectively, the walls of the ILM to broad bands and doing the same for DS curves in the ELM. For example, the wage/employment outcome in a perfectly competitive labour market is tightly determined by DS at W₁L₁ but in the IR frame may be any combination of values inside the overlapping bands (Lester 1988; Solow 1990).

An important empirical and policy implication is that the area of indeterminacy within the overlapping bands means that unions and labour laws may increase costs and wages over some initial range without reducing employment (Kerr 1977; Freeman and Medoff 1984; Kaufman 2012a). A complementary implication is that wage differentials and labour mobility are impeded and no longer ensure allocative efficiency or adequate protection against exploitation and harmful conditions of labour.

Panel (1) also introduces three other features not contained in NLE or, for the most part, HRM. The first is the sustainable (subsistence) wage W_s, defined as the wage per hour over a working year required to minimally sustain the worker and dependents with food, housing, medical care, and other necessities (Webb and Webb 1897; Stabile 2008). The level of W_s, shown as the larger dashed line, is contingent on stage of economic development, social and cultural norms, and

family size. An important consequence of introducing the sustainable wage is that it makes the labour supply curve turn from positively sloped to negatively sloped (not drawn) -- and then increasingly elastic -- as the wage rate approaches W_s. The reason is that close to W_s, and most certainly below it, the dominant concern of the worker becomes maintaining household income and a fall in the wage therefore induces increased labour supply as breadwinners offer to work more hours and other 'secondary' workers (e.g., school-age children, non-working spouses, elderly) enter the workforce (Dessing 2002). It is possible, therefore, to have multiple equilibria in the labour market and for wage decreases to become destabilizing where the supply curve crosses-over the demand curve (also not shown). More generally, whatever the precise shape of the labour supply curve, the IR model calls attention to the fact that a wage below W_s harms efficiency and causes serious labour problems because the nation's stock of human resources deteriorates and, at some point, starts to rebel against the inhumanity of capitalism (Webb and Webb 1897).

Another IR feature is to emphasize the role of fairness and social norms in wage determination and employee relations (Wootten 1955; Solow 1990; Dunlop 1994). Fairness has both procedural and distributive components. In the labour market the distributive element is portrayed in panel (1) with the help of the two dashed lines at W_2 and W_3 . Given the going market wage of W_1 , people in the workforce form a subjective assessment of what is a fair wage and fair distribution of income between capital and labour owners. A wage above W_3 is evaluated as unfair toward capital and below W_2 is unfair to labour. A representation of a fair wage outcome, therefore, is the area within the two dashed lines which creates a 'zone of reasonable value' (ZoRV) (Commons 1934a). Wage rates outside the ZoRV lead to behavioral responses by workers, ranging from high turnover to strikes to voting for labour party candidates, which raise the costs of unfairness, disrupt the short-run DS equilibrium, and induce firms and the government to take actions that restore fairness and DS equilibrium inside the ZoRV.

Shifting to the organization in panel (2), fairness again has a large impact. The management field has a significant research area devoted to organizational justice; however, it is a reasonable generalization to say that in the standard HRM model fairness gets modest attention (e.g., Paauwe, Guest, and Wright 2013), partly because fairness is an assumed condition in unitarism. The IR model maintains, on the other hand, the inevitability of conflicting interests so

distributive and procedural justice in firms are important behavioral motivators. In particular, unfairness in employer-employee relations undercuts labour's cooperation and effort supply in panel (2), shifts the two sides' interest juxtaposition from positive sum to either zero or negative sum in panel (3), shifts the firm to a lower output curve (e.g., from q_3 to q_2) in panel (4) and reduces productivity, and creates greater workplace problems, conflicts, and greater desire for union and government protection in panel (6).

A significant place of difference between NLE/HRM and IR is with regard to interest juxtaposition in panel (3). The former two presume employers and employees engage with each other in a positive-sum relationship, in the NLE case because competition protects all parties and leads to best-attainable outcomes and in the HRM case because employers realize that a unity of interest relation is essential to a high performance advanced HRM system. IR, on the other hand, presumes the base-line condition in panel (3) features a significant area of conflicting interests and win-lose since employers want lower wages, more work effort, and unhindered discipline and termination while employees want higher wages, limits on work hours, and protection in discipline and termination (Marsden 1999; Bélanger and Edwards 2007). NLE and HRM assume the invisible hand of markets or visible hand of management can work out win-win solutions to these conflicts but IR maintains that structural features of real-life ERs instead put employers and workers in a prisoners' dilemma game where non-cooperation, opportunism, and distrust are the dominant incentives (Fox 1974; Miller 1991). That is, because the ER allows either employer or employee to renege on commitments (e.g., no promised wage increase in return for greater work effort, and vice versa) and exit on short notice, and also because the ER gives employers the dominant power position and residual right to hire-fire, opportunities for moral hazard in the workplace are rife, particularly in non-union/nonregulated workplaces where employees are typically in the weaker and more vulnerable position.

Achieving a positive-sum ER outcome in panel (4), and preventing win-win from deteriorating into lose-lose, is also difficult in the ER because of instability and unemployment in the macroeconomy of panel (5). The IR view is that a laissez faire economy is prone to recurrent boom and bust (Commons 1934b; Kelly 1998; Kaufman 2012b). This means that the aggregate demand line C+I+G shifts up and down relatively frequently; further, the economy does not have a strong or reliable self-correcting mechanism and hence a recession with substantial unemployment may

last a considerable time. The cyclical instability of a free market economy makes creation of a win-win HPWS problematic because firms have difficulty honoring their psychological contracts with job security assurances and, further, workers are skeptical they will not be laid-off and therefore lose the promised fruits of cooperation and hard work (Thompson 2003; Moriguchi 2005). For these reasons industrial relations favors active state stabilization of the macroeconomy, such as Keynesian-type demand management.

The employment relationship in capitalism, therefore, suffers from structural sources of inefficiency and injustice. From an IR perspective (Budd 2004; Müller-Jentsch 2004; Kaufman 2005; Blyton, Bacon, Fiorito and Heery 2008), these problems are not so large or insoluble that they call into question the viability of capitalism or the conventional ER. Rather, the IR solution is to use institutional reengineering and balancing to help more employment relationships move a step or two up the scale from a negative-sum to zero-sum to positive-sum situation.

The last of the six middle diagrams is panel (6). The base-line ER condition of significant power imbalances, market and organizational failures, boom and bust macro-economic conditions, and harmful effect of injustice on productivity and attitudes creates an employment relation with numerous forms of employment problems and capital-labour conflicts, some of which may be large and even a threat to the existing order (Streeck 2014). The employment-problem/collective-mobilization line, therefore, shows a much higher-baseline of employment problems and conflict in the ERS, such as depicted by the higher vertical intercept of line EP₂ in panel (6). Also predicted in the IR frame are more pronounced cycles and spikes in ER problems and conflicts and, absent institutional remediation, either a continued medium-level long-term trend (horizontal part of EP₂) or, perhaps, an upward trend (parallel to EP₃). These problems, exacerbated by the exposed and vulnerable position of workers in markets and firms, lead to equivalent levels and trends in worker collective action in the form of union size and strength, significant strike action, and labour/social-democratic party political strength.

In the IR frame of reference, problems and conflicts are inherent to the employment relation and, overall, a necessary part of maintaining a negotiated order and motivating compromise. However, the raison d'etre of industrial relations is to improve the efficiency, fairness, and humanity of capitalism so problems and conflicts decline over time. The IR program for improved employment relations is a combination of stable/full-employment markets, spread of progressive/high-road management, solid safety net of social welfare programs, independent

labour movement to serve as a counterweight to corporate power in the polity and workplace, and a protective shield of labour and employment laws. The ILO programs of decent work and international labour standards are in this tradition (Vosko 2002). These IR policies can help balance, humanize, democratize, and professionalize the employment relationship and reduce over the medium/long-run the breadth and depth of ER problems and conflicts. Successfully done, the vertical intercept of line of EP₂ gradually shifts down and the slope turns from horizontal to downward sloping with diminishing cycles, albeit never as far or fast as unitarist line EP₁.

The IR/pluralist frame of reference ends with the bottom part of Figure 1. The outcomes generated in the middle six diagrams vary across workplaces, companies, industries, and nations and generate levels of ER health and performance that trace-out a frequency distribution, such as ER₁. Relative to the HRM frame, the frequency distribution is predicted to have a lower mean H&P score, greater dispersion around the mean, and a left-side tail that goes below socially reasonable employment standards. The science and practice of industrial relations is intended to shift the entire ER frequency distribution to the right over time, although success is more contingent, slow, and difficult than in NLE or HRM because of contradictory firm-market logics, built-in tendencies of capitalism toward greater concentration of income, wealth and political power among capital/property owners and social elites, and macro-economic cycles and crises. In recent years, IR has also begun to extend its conception of pluralistic interest groups to include gender relations and, in particular, issues of male-female hierarchy, power inequality, and disparate treatment in workplaces, labour markets, and families (Rubery and Fagan 1995; Pocock 2014).

Another complicating factor is that making well-grounded comparisons and predictions across the four ER frames is difficult because each frame uses different values, interests, and social welfare objectives, and weights attached to them, to aggregate and rank order the observed ER outcomes from the middle section of the figure in terms of a subjective health and performance rating. NLE and HRM, for example, give priority to efficiency in exchange and production and model labour as an instrumental means to an end. As earlier noted, IR makes ER H&P calculations with a wider and more humanistic set of criteria, starting with efficiency but also including objectives such as fairness, voice, democratic governance, and opportunities for self-development/self-actualization at work (Budd 2004; Kaufman 2005). The consequence is that an

identical set of measured ER outcomes from the middle of the ERS yield different frequency distributions at the bottom because they get filtered and evaluated by different normative criteria in the social welfare function box. This phenomenon is clearly evident across ER frames of reference but also within frames, such as between IR researchers from individualist/neo-liberal North America and collectivist/social democratic European countries. (Historically, North American IR also contains an employer/management wing while European IR typically does not.)

Critical Frame: Radical Workplace Sociology and Marxist Political Economy

The fourth ER frame of reference is critical (or radical). This frame is found in nearly all LWE fields, such as critical management, radical economics, labour process analysis, critical legal studies, régulation theory, work sociology, and radical feminism. Most representative of the critical frame is the micro-macro combination of radical workplace sociology and Marxist political economy (RWS/MPE). Karl Marx and Friedrich Engels are the root stems of the Marxist wing of the critical frame, with 20th century followers such as Michel Aglietta, Harry Braverman, Pierre Naville, and E.P. Thompson. The critical frame is diverse, however, and has a significant critical-radical wing that incorporates a variety of non-Marxist perspectives, ranging across writers such as G.D.H. Cole, Michel Foucault, Jurgen Habermas, Mary van Kleeck, and C. Wright Mills. In its strong Marxist version, the critical frame is clearly distinct from the pluralist frame but the degrees of separation progressively shrink and blur as the border of the two frames is approached (e.g., Polanyi 1944; Wootten 1955; Edwards 1986; Boyer and Saillard 2002; the Frankfurt School) -- akin to the indistinct political border between social democracy and democratic socialism.

Each ER frame of reference theorizes LWE from a different gestalt perspective with different assumptions, concepts, cause-effect relations, and social welfare objectives. Major attributes of the critical frame are listed in Table 1: capitalist class monopoly, exploitation system, conflict and struggle, replacement of capitalism, and workers' control. The frame is called critical or radical because it presents a system-wide critique of the economic and social inefficiencies and inequities of capitalism, with particular focus on the exploitation and alienation suffered by workers in the wage-labour employment relation (Gall 2003; Hillard and McIntyre 2009). It therefore proposes radical restructuring of the system, even to the point of revolution and complete replacement (Hyman 1975; Gorz 1976), in order to rescue society and the working class from the destructive and inhumane consequences of competitive profit-making.

The individualist and critical frames are in many respects polar opposites, as well revealed in their approach to theorizing the ER. The individualist/NLE frame gives center of attention to the labour market in panel (1), portrays the ER as a competitive market-mediated exchange guided by the price system, and shows that the outcomes in the ideal of perfect competition are efficient and fair (the highest H&P score in the frequency distribution). The critical frame, following Marx, instead grounds its theory of the ER in the hierarchically-structured and management-coordinated firm and production process in panel (2) and focuses not on the allocative role of flexible wages but the accumulation and exploitation dynamic in profit-seeking (Burawoy 1979; Jessop 2002). The unitarist frame also centers attention on the firm, not the market, but reaches optimistic conclusions similar to the individualist frame by largely omitting the political economy superstructure in the top level of Figure 1 and the exploitative, lose-lose dynamic created by the clash of logics between, respectively, the activities of production and exchange and employee status of commodity and human being (Polanyi 1944). This clash of logics is also contained in the pluralist frame but in a more moderate and ameliorable form.

Capitalism has created an unparalleled two-hundred year rise in GDP, family living standards, and real wages and job conditions. But, from a critical perspective, these accomplishments are deeply marred because of the inequality and inequity within countries and across world regions in who gets the benefits vs. who bears the costs of growth. A Marxist tenet is that every society in every historical period is divided into a parasitic ruling class and exploited producing class and the former largely lives off the surplus created by the latter (Marx and Engels 1848). In ancient Egypt, the ruling class was the pharaohs, priests, and military and they seized or taxed a large share of the output of the peasant class to support an extravagant court life. A millennia later in European and Asian feudalism, the lords, military, priests, and supported families and functionaries lived affluent lifestyles by appropriating the surplus produced by slaves and land-bound serfs. From a critical perspective, the only substantive difference between ancient Egypt of 10th century BCE, European and Asian feudalism of 12th century CE, and 21st century capitalism is the nature/composition of the two classes and the methods the dominant class uses to expropriate the surplus from the subordinate class (Mandel 1967; Burawoy and Wright 2003; Fine and Saad-Filho 2010).

In capitalism, the two classes form around property/resource ownership and the dominant method of exploitation is the wage system and employment relation (Devine 2017). As

capitalism develops, the traditional agrarian/handicraft form of production with widespread self-employment and ownership of simple tools evolves into capital-intensive factories, mills, and railroads owned by a relatively small group of financiers and captains of industry – the employers – who live off of profit while most of the small farmers, craftsmen, and traders join the ranks of a large urban-based wage labour force – the employees – who live off of hourly wages received from renting their labour power to the capitalists.

In the labour market in panel (1), a persistent surplus of available workers, called by Marx the reserve army of the unemployed, keeps wages near the minimum sustainable-subsistence level, W_s, particularly for bottom-level groups such as the unskilled, immigrants, women, and ethnic/racial minorities (Botwinick 1993; Peck 1996). In the diagram, if the supply curve is shifted to the right (not shown) so all workers get the wage W_s, the wage share of national output is just enough to keep employees alive and working and their families reproducing enough children to staff the future proletariat while the small group of capitalist employers and associated elites get the rest of the national output (Roemer 1982; Kaufman and Gall 2015). In Marx's theory the income for capitalists and property owners is entirely unearned surplus while in other critical-radical theories their incomes are a mix of earned and unearned (earned for saving, capital investment, and entrepreneurship; unearned as an economic rent on artificially contrived scarcity of ownership rights and social position).

The origin of the surplus and the place where employers, individually and as a class, appropriate their part through exploitation is the workplace and labour process in panel (2). The exploitation process, however, is facilitated by labour market failures and structural segmentation in panel (1) and macro-economic cycles and unemployment in panel (5) and varies across employees depending on skills, education, occupation, gender/race, and company.

The capitalist firm is the site of inherent power imbalance and economic inequality (Braverman 1974; Alvesson and Wilmott 2012), connoted by the pyramid shape in panel (2). The employment contract bestows on the employer the legal authority to run the business, make decisions, and give orders and, similarly, commands the employee to follow orders and work as directed or risk at-will termination. Absent restraints, such as protective labour laws and unions, the capitalist employer is, in effect, an autocratic 'king of the business' just as the feudal lord was 'king of the manor.'

On one hand, the analogy between employer and feudal lord exaggerates the vulnerability of modern-day employees because it is much easier for free labourers in the 21st century to leave bad employers than for land-bound serfs in the 14th century to leave bad lords. But, on the other, the analogy understates the vulnerability of today's employees. The 14th century lord was bound by social custom to provide serfs and their families with life-long food, shelter, and security and, likewise, they had an economic incentive to do so in order to maintain their workforce and size of surplus available for taxation or confiscation. The 21st century employer, however, can avoid part of these workforce maintenance costs and increase the firm's profit surplus by laying-off employees when not needed and forcing them -- or their families, local communities, and taxpayers (e.g., church food banks, hospital emergency rooms, unemployment insurance) -- to find the money to pay for a survival level of food, shelter, and security which 700 years earlier serfs had received as a matter of right (Polanyi 1944). Also, more employees are becoming part of the new 'precariat' class of part-time, contingent, and informal contract workers (Standing 2011), often lacking the rights and protections given to regular employees and therefore more vulnerable to exploitation, insecurity, and human capital deterioration. The modern-day worker's freedom to quit a bad job may also be a hollow freedom if it simply means liberty to go down the street and work at a different bad job (Appelbaum, Bernhardt, and Murnane 2003; Ritzer 2011).

Critical-Marxist feminists point out that much of what was just written above about the capitalist firm and employment contract applies equally well to the traditional patriarchal family and marriage contract between husband and wife (Albelda 1999; Vogel 2013). For centuries past, and still often true today, the husband is 'lord of the realm' at home (the canonical Christian wedding vows command the wife to obey the husband) and the wife and children are by law and custom subordinate, dependent, and vulnerable order-takers. If the wife works in the home, she is in the traditional family akin to a non-wage serf whose labour is exploited in the sense of producing a surplus of goods and services which is partly appropriated for use and enjoyment by the husband. If the wife works at a paying job, she is open to exploitation and subordination at two levels – typically being bossed by a male manager at the firm and paid a lower wage for equal work and being bossed by a husband at home and doing most of the work but receiving less of the surplus (Peterson and Lewis 1999). The value of unpaid work done by a stay-at-home spouse, and also the value of reproducing the next generation of workers, should also be covered by the market wage paid to the breadwinner and shared with the partner.

However, here again firms are able to dodge part of this social cost of labour, partly by using the pool of unemployed job-seekers to leverage down wages below the family wage of W_s in panel (1).

The division in the firm between management order givers and employee order takers is illustrated in panel (2) by the dividing line separating the pyramid part of the organization, containing the hierarchy of managers from CEO to first-level supervisors, from the rectangle part containing the production process and wage-labour employees. This two-way division is an abstraction, like the perfect competition model in the individualist frame, and in real life the boundary between management and employees has a blurry area, such as with foremen, lowerlevel administrative staff, and professional-technical people (e.g., engineers, professors). The general point, however, remains that inside the firm the employer and managerial agents have, respectively, considerable power to mistreat, take advantage of, silence, and terminate employees; considerable leeway to do so since many workers are afraid to speak up or resist for fear of retaliation or getting fired with few other jobs in the labour market; and an incentive to do so for personal gain (e.g., financial or sexual favors) or as a way to keep the firm competitive by lowering labour costs (e.g., intense work speed, skimping on safety equipment). To the extent that dearth of job opportunities in ELMs and significant-sized costs of job quitting in ILMs bind workers to their firms, their employers gain in like degree an ability to exploit them (Bowles and Boyer 1988; Kaufman and Gall 2015).

Proponents of the unitarist HRM frame argue that employers, or at least the smart ones who want to survive and prosper, will forego mistreatment or exploitation of their employees because it creates an adversarial lose-lose interest juxtaposition in panel (3), undercuts cooperation and productivity and puts their firms on the low labour-output curve q_2 in panel (4), and thus harms the central objective of making higher profit. The response of critical-Marxists is that the unceasing pressure of competition on firms to cut costs and raise profit margins, coupled with periodic layoffs, downsizings, and outsourcing of production to low-wage countries, makes it nearly impossible for firms to honor longer-term promises and commitments to employees, resulting in breach of psychological contracts, and thus the cooperative mutual-gain cell in panel (4) is in reality unobtainable for most firms and unsustainable over the longer-term for even the minority that get to win-win with an HPWS (Thompson 2003).

An important idea in the critical frame is the concept of contradiction, meaning an unstable tension between opposing forces or objects (Edwards and Wajcman 2005). In the labour process/RWS literature, the unitarism of HRM is unstable because of the contradictory tension between management's need to exert control over workers, which breeds a counter-response of resistance, and simultaneous need to induce their consent to cooperate (Braverman 1974; Bélanger and Edwards 2007). Firms, therefore, select as part of their HRM strategy the employment system (also called in this frame regimes of control/regulation) that is able to extract the most labour power from the human figure in the bottom of panel (2) with least cost and push-back.

Up to the 1980s, the dominant strategy was a combination of Taylorism and Fordism, named after Frederick Taylor who popularized scientific management in the early twentieth-century and Henry Ford who pioneered the mass production assembly line form of work (Piore and Sabel 1984; Jessop 1992; Wren and Bedeian 2009). This model uses top-down management command/control; subdivision of work into narrow, repetitive, and deskilled job tasks; technological controlled and driven work speed, and motivation through tough discipline and threat of termination and unemployment. An inevitable counter-result is a resentful, alienated, low-performing workforce hostile to their companies with growing oppositional class consciousness and conflict on the shop floor and through trade unions (Edwards 1986).

The emergent contradictions of the Taylorist/Fordist model, such as increasing conflict, declining productivity growth, and tightening squeeze on profits, stimulated search in the last part of the twentieth century for new employment models. The development of unitarist HRM and development of the high-performance work system, and associated lean-production system, is one model—facilitated by new production technologies and electronic control and communication systems that allow smaller, more decentralized, and less top-down bureaucratic workplaces (Adler 2003). Ethnographic case studies of HPWS/lean-production workplaces reveal, however, that behind the alluring façade of self-managing teams, employee involvement, and mutual-gain pay is a more grim reality of squeezing out additional profit by faster work speed, downsizing so fewer people do more work, and promoting competitiveness and flexibility by cutting wages and benefits (Mehri 2006; Stewart, Mrozowicki, Dunford, and Murphy 2016).

Because the HPWS model is expensive to install and maintain, despite all the publicity and academic attention it remains a small and probably shrinking presence (Blasi and Kruse 2006; Kauhanan 2008). Far more popular and widespread are other post-Fordist employment models. One strategy is to dismantle ILMs and move back toward an ELM demand/supply system, such as with employees hired on informal, part-time, temporary, or termination at-will contracts. A second strategy is an electronic control model, such as in call centers, trucking, and hospitals, where employees' work speed, location, customer interaction, time use, and workplace behavior are continuously monitored by video cameras, tracking sensors, listening devices, and personal computers. From an RWS/MPE perspective, most 21st century workplaces in advanced economies are certainly better than the dark satanic mills of the 19th century but, nonetheless, still yoke wage employees to exploitative, alienating, and debilitating work routines for sake of profit and capital accumulation (Bain, Watson, Mulvey, Taylor, and Gall 2002).

Conditions in external labour markets (panel 1) and the macro-economy (panel 5) also facilitate exploitation and extraction of labour power (Boyer 2014; Devine 2017). The companies across the nation are where the GDP is produced and sold in markets for profit (profit = revenue – cost). NLE assumes profit is a legitimate, socially necessary payment for use of capital services, like wages are a payment for labour services, but in the critical-radical frame part or all of profit is an economic rent (surplus above cost) and therefore an unearned income payment. Profit is artificially inflated for capital owners because, on the cost side, competition from the persistent pool of unemployed people in labour markets depresses wages and work conditions below the competitive level W_1 in panel (1), perhaps all the way to minimum sustainable wage W_3 . Then, on the revenue side, the core sector of large oligopolistic corporations and financial institutions, protected by a variety of barriers to market entry, use their monopoly power to raise product prices above the competitive level (Baran and Sweezy 1966; Clarke 1994). This combination of underpaying labour and overcharging consumers creates a number of dysfunctional trends which lead to slowing growth and then worsening recessions – with the bulk of the pain and suffering concentrated on employees and their families.

For example, exploitation of labour and consumers, along with rising market concentration among banks and corporations, creates rising profits and incentives for additional investment spending in panel (5). Rising profits and stagnant/falling wages lead to growing income and wealth inequality as the wage share of national income falls and the profit/executive

compensation share expands. As income inequality worsens, middle- and lower-class families with stagnating incomes have to cut back on consumption spending ($C\downarrow$) in panel (5), leading to a slowing and then decline in aggregate demand ($D\downarrow$). Companies with growing profits, on the other hand, expand investment ($I\uparrow$) in technologically-advanced production capacity on the aggregate supply side ($S\uparrow$) in order to capture more market share at lower cost. The growing aggregate demand/supply imbalance -- illustrated by the widening gap between S and D to the right of Q_1 – leads to a series of gradually worsening recessions and weak recoveries until the structural inequalities built into the system eventually bring on collapse and crisis (Baran and Sweezy 1966). In the Marxist wing of the critical frame, the employer class tries to rejuvenate aggregate demand and postpone the developing profit squeeze by pushing military spending and foreign wars and carving out imperialist spheres of influence in third-world nations to gain captive markets for exports and cheap labour for offshore production (Clarke 1994).

In NLE free-market theory, when quantity demanded is less than quantity supplied, like in a recession, the invisible-hand solution is for prices and wages to fall which is supposed to spur demand, rein-in supply, and automatically bring the market back to full-employment equilibrium. In the critical-Marxist frame, the fall in prices and wages leads to a dog-chasing-its-tail downward spiral as some firms and families go bankrupt while surviving firms layoff more workers and working families further cut back on spending, including essentials such as health care, housing, and educating their children.

The scenario described above leads to panel (6). Employment problems and conflict in the critical frame are inherent to the capitalist ER, significant and broad-scale in nature, and exhibit long-term and perhaps worsening cycles associated with accumulation and profit crises (Kelly 1998). A representative pattern is shown by line EP₃. It exhibits a wave-like pattern over the long-run, falling during the early-middle parts of new accumulation/regulation regimes and, with their gradual break-down as generators of surplus for reinvestment, a rising trend toward crisis and labour exploitation, and parallel rise in workers' collective mobilization and protest. An example is the transition (with attendant crisis) from the primitive commodity production model of the late 19th century to the early 20th century Fordist mass production model to the post-Fordist flexible specialization model of the late 20th century (Piore and Sabel 1984; McDonough, Reich, and Kotz 2010; Boyer 2014).

Because the labour market does not protect their interests and the state is under the control of the capitalists, workers find the only effective protection against exploitation and disenfranchisement is direct action on the shopfloor and organizing trade unions of broader and more powerful kinds. The union movement is vanguard of the workers in that it uses collective power to protect and advance wages and other conditions, introduces an element of industrial democracy in the workplace, and engages in pro-labour political action at the national level (Hyman 1975; Lapides 1987; Kelly 1998). The ultimate goal of the union movement must be, however, replacement of capitalism which it can accomplish through peaceful take-over of the government and a 'legislated revolution' or a violent take-over through general strikes and a people's insurrection. Once industry is owned by the workers and managed in their class interests, a socialist form of unitarism is established and trade unions in their traditional adversarial bargaining form no longer have a functional role, unless it is as an adjunct of factory management and 'transmission belt' between nation state at the top of the ERS and workers in individual firms at the bottom of the ERS.

The top-level political and institutional superstructure in Figure 1 has not yet been discussed viz. the critical frame and, paradoxically, its role and importance are largest in this frame. The central drivers of capitalism are profit-making and capital accumulation which depend on appropriating through government-aided confiscation and labour exploitation as much of the social surplus as possible. Surplus creation, labour exploitation, and capital accumulation all originate in the firm and labour process at the bottom of the ERS. Marx and Engels (1848) describe the peak-level government as a "committee for managing the common affairs of the whole bourgeoisie." The idea is that the national governments of Marx's time were controlled by an elite ruling class of capitalists, property owners, and hereditary aristocrats (most countries were ruled by kings and emperors and the few with elections restricted voting rights to male, non-slave, property-owners) and they self-consciously used the government to promote their individual and class interests. The architectural structure of the ERS in Figure 1, therefore, is built top-down by the controllers of government but the design and operation of the structure has a bottom-up 'materialist' origin because its strategic purpose is to protect and advance the two imperatives of profit-making and capital accumulation.

Since the wealthy elites control the government, they use it to structure the elements in the National Context and ER Institutions boxes to promote their interests and the profit-making and

capital accumulation goals. As examples, the education system instills capitalist ideology and restricts university and professional training to male children of affluent and socially-connected families, courts and legislation suppress labour unions and break strikes, production cost is kept down by having no protective labour laws (minimum wage, maximum hour, health and safety, child and prison labour), high work effort and cooperation are coerced by at-will termination and no social safety net (no unemployment insurance, etc.), employers are left free to discriminate, particularly against women, immigrants, and other vulnerable groups, and social norms are encouraged that promote competitive individualism and money-based values.

The gradual extension of political democracy and voting rights since the mid-19th century has much broadened and shifted the locus of government control from the elite of wealthy businessmen and land owners to a majority coalition of middle class and working class families. Marx failed to anticipate this structural change in class control of capitalism and, arguably, the 20th century spread of representative democracy and social reform have been the most important factors vitiating his grim diagnosis of growing working class immiseration, intensifying class struggle, and socialist revolution (Bowles, Edwards, and Roosevelt 2005). As governments in the last century began to rise and fall based on voting majorities from middle/lower class families, their economic and social agendas noticeably shifted with dramatic consequences for all aspects of the ERS (Peck 1996). Modern welfare states arose after World War II, access to higher education was democratized by both class and gender, strong labour movements were encouraged and protected by governments, progressive income and inheritance taxes reduced income and wealth inequality, comprehensive protective labour laws and social safety net programs were enacted, and women were considerably liberated from patriarchal subordination (Esping-Andersen 1990).

The strong growth and shared prosperity enjoyed by market-capitalist countries after World War II, and the unappealing police-state regimentation and deteriorating growth of socialist/communist countries, led to similar decline in the intellectual vitality and popularity of the critical frame, starting first in Anglo-American countries in the early 1970s and later spreading to Europe and other world regions (Cullinane 2014). The shift from left to right in political and intellectual sentiments at first benefitted industrial relations and the pluralist frame, since they are closest to the critical frame. But the rightward trend continued, symbolized by the election of Reagan and Thatcher in 1979/80 and rise of neo-liberalism. The ER

center of gravity moved further right until free-market NLE and unitarist high-involvement HRM were able to capture the scholarly and policy high ground, although with less success in social democratic Europe.

From a critical-Marxist perspective, the ascendancy of NLE and HRM could be interpreted, paradoxically, as a positive sign for the radical RWS/MPE paradigm. That is, the rehabilitation and popularization of free-market and unitarist management doctrines, last having widespread appeal in the 1920s (preceding the Great Depression), is a clear signal that profit-making and capital accumulation are sputtering, such as from deindustrialization, real-wage stagnation, and high welfare state taxes and budget deficits (Jessop 2002). The capitalist-supported power elites reacted to the incipient crisis of the late 20th century by pushing neo-liberal free-market, anti-union, and anti-government philosophies so companies are deregulated to lower costs by what amounts to greater exploitation of workers, consumers, and the environment in order to get a larger slice of a shrinking surplus (Alvasson and Wilmott 2012). This kind of trickle-down economics from rich to poor, from a critical-Marxist perspective, is a certain recipe for the same trend of rising inequality and stagnating demand that brought on the Great Depression of the 1930s, with the world financial crisis of 2008 as a harbinger (Palley 2012).

Evidently the ERS in the critical frame is not a separate and relatively autonomous sphere of the economy and society, such as the labour market in NLE, firm in HRM, and collective bargaining system in IR, but represents the organic beating heart of the entire capitalist system. An implication is that study of LWE in general, and employment relation in particular, must be viewed as a totality from an encompassing political economy perspective and cannot be satisfactorily carved up into a series of separate and mostly disconnected disciplines, research fields, and college majors. Division of labour and specialization in LWE research and education are, of course, essential in today's complex and knowledge-crowded world but they must be relentlessly connected back at the big-picture theory level to the unjust, exploitative, and dysfunctional tendencies in capitalism and, at the level of daily practice, to the problems and frustrations of ordinary working people trying to survive and get ahead on a tilted playing field.

The ERS in the middle and top parts of Figure 1 produce the many behaviors and outcomes discussed above. Many RWS/MPE writers would argue that most of these outcomes are transparently harmful and anti-social and the model needs no Competing Social Interests, Values, and Welfare Objectives box to reach this conclusion (e.g., Hyman 1975). But, if a

normative values box is included they would revise it in several ways (Gintis 1969; Mayer 1994; Baiman 2016). For example, from a classical Marxist perspective the owners of capital and natural resources should get a small or even zero weight in the social welfare function because they are not producers but moochers. (The physical capital and land create production and income but the owners of these inputs may contribute nothing yet get yearly income by buying or inheriting legal title). People in the critical frame would also make good vs. bad welfare judgments with an expanded set of normative criteria, such as freedom from want, gender and race equality, workers' co-management rights, and emancipation from jobs that are alienating, unhealthy, and dead-end. In general, both deletions and additions to the Competing Interests box amplify the negative verdict on ER H&P, per the term 'critical.'

Like the other three ER frames, the critical-Marxist frame generates a frequency distribution of ER health and performance outcomes. Some firms rank relatively high in the distribution, even by the critical normative standards used in this frame to evaluate employment relationships. However, the structurally unbalanced and dysfunctional nature of the ER system in a capitalist economy means the majority of workplaces get relatively low scores and a significant portion are deplorable places to work and cluster close to the left-hand end of the H&P continuum. Relative to the distribution ER₁ depicted in Figure 1, the distribution predicted by the critical frame locates substantially to the left with a lower mean H&P score located somewhere in the 'critical' section of the continuum, a substantial mass located near the left-hand tail, and relatively small and unstable mass in the lower section of the unitarist/individualist section.

Over historical time, the ER distribution shifts right and left in line with long-run economic cycles tied to the formation and then dissolution of accumulation regimes (McDonough, Reich, and Kotz 2010; Boyer 2014). The prosperity produced by Keynesian welfare state policy and capital-labour class compromise after World War II moved the distribution noticeably to the right; then starting in the early 1980s the distribution reversed movement and shifted leftward as deindustrialization, stagnant wages, and rising income and wealth inequality squeezed profits, sapped investment-led growth, and hollowed-out the ERS in advanced economies (Crouch 2014). In the classical Marxist version, the ER distribution shifts progressively to the left until the system collapses. In non-Marxist versions, the present-day capitalist system may survive for the foreseeable future, partly because most people don't see a good alternative to market capitalism and U.S. hegemony (known as TINA: there is no good alternative), but deteriorating

conditions for much of the workforce are nonetheless forecast to bring growing ER conflicts, sharpening of class divisions, and growth in extremist politics and international hostilities.

Conclusion

A well-known aphorism is that people's view of reality depends on where they stand. Perhaps in physical sciences, like astronomy and physics, inanimate nature has only one reality which can be described and predicted by a single grand theory and set of equations with a unique solution value. Social sciences, like labour, work and employment, are fundamentally dissimilar because they study human beings whose perception and experience of reality are filtered through different frames of seeing, thinking, deciding, and judging. No grand theory of LWE is possible, therefore, not only because of the immense range and diversity of topics but also the inability of a single theory to embed different subjective frames of reality into one code of logic or generate a mutually consistent set of equations that is capable of being solved and does not yield multiple equilibrium solutions.

The strategy pursued in this chapter is to openly recognize the existence of alternative theoretical gestalts in labour, work and employment, identify the strategic points of commonality and difference, and use the commonalities to construct an integrative analytical framework and the differences to generate and explain the alternative gestalts and outcomes. The anchoring concept in the framework is the employment relationship and corollary concept of an employment relations system. A diagrammatic representation of the ERS is developed with eleven generic components, starting with labour market, firm, and labour process. The ERS model is then elabourated into four different LWE frames of reference: individualist, unitarist, pluralist and critical. The implications for ERS outcomes, evaluated both positively and normatively, are worked out and displayed in a frequency distribution that shows workplaces ranked by ER health and performance. Each frame leads to a different distribution at a point in time and different predicted shifts in distributions over time.

This model is not a grand theory of LWE but does give the field a more integrative framework to help guide and structure thinking and research. Toward that end, I believe each chapter that follows in this volume has a place in the ERS theoretical framework presented here. If an answer is wanted to the "So What?" question, the best place to start is take any chapter topic in the remainder of the handbook, locate its place in Figure 1, and see if the model's three-part

hierarchical structure, eleven component parts, and frequency distribution of outcomes provide any new ideas or directions for conceptualizing the subject, identifying vertical level-of-analysis and horizontal cross-discipline linkages, thinking out relevant independent, mediating and dependent variables, understanding the strategic points of difference in theories and frames of reference from diverse fields (e.g., labour economics, human resource management, industrial relations, workplace sociology, Marxist political economy), and bringing to the surface hidden, implicit, or determinative normative assumptions and values.

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Table 1. Employment Relationship Frames of Reference

Frame	Organizational	System	Behavior	Interest Juxtaposition	Policy
	Vision	Analogy	Principle		Stance
Individualist	Free market	Market System	Competition	Conflict → Harmoniously Aligned	Laissez Faire
Unitarist	Harmonious Team	Management System	Cooperation	Conflict → Harmoniously Aligned	Business Friendly
Pluralist	Competing Interest Groups	Governance System	Negotiation and Compromise	Common ↑Opposed ↓	Institutional Power Balancing and Democratization
Critical	Capitalist Monopoly	Exploitation System	Conflict and Struggle	Antagonistically Opposed	Replace Capitalism

Figure 1. Employment Relations System and Outcomes

