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Using Unitarist, Pluralist, and Radical Frames to Map the Cross-Section Distribution of Employment Relations Across Workplaces: A Four-Country Empirical Investigation of Patterns and Determinants

Bruce E. Kaufman, Georgia State University & Griffith University

Michael Barry, Griffith University

Adrian Wilkinson, Griffith University and University of Sheffield

Guenther Lomas, Hong Kong University of Science & Technology

Rafael Gomez, University of Toronto

Introduction

The *frames of reference* (FoR or ‘frames’) model in the employment/industrial relations (EIR) field is a widely-used conceptual schema for distinguishing alternative paradigm-level perspectives and models dealing with the nature and outcomes of employer-employee relationships in organizations. The FoR framework was introduced into the EIR field by British sociologist Alan Fox (1966, 1974) who first distinguished two frames of reference, *unitarist* and *pluralist*, and several years later added a third *radical* frame. Subsequent writers have expanded the list to four (Budd and Bhawe, 2008, 2019), five (Godard, 2005), six (Bray, Budd, and Macneil 2020) and as many as nine frames (Cradden, 2017), while others stay with Fox’s original three frames but revise one of them (e.g., neo-pluralism, Ackers 2019) or distinguish two or more within-frame subtypes (e.g., hard vs. soft unitarism, Heery 2016).

In the five decades since Fox introduced frames of reference in the EIR field, the literature has steadily grown and, according to the database *Business Source Complete*, now numbers more than 700 peer-reviewed articles. The literature is asymmetric, however, with regard to theoretical-empirical focus. In his book-length examination of frames of reference, Heery (2016: 2-3) observes that the FoR research program has largely gone in two different directions, first as an almost completely non-empirical internal debate on rival IR paradigm frame perspectives and workforce governance regimes and, second, studies on alternative managerial labour ideologies and strategies, a portion of which has empirical content but typically of a case study/ethnographic nature (Bacon, 2008). A handful of frames studies are quantitative and data-based, though on specific EIR topics (e.g., Godard, 1995; Kochan, Yang, Kimball, and Kelly 2019); a modest number of case studies organize/analyze their topics with frames of reference (e.g., Muller, 1999; Cullinane and Dundon 2014; Kaufman 2016; Johnstone and Wilkinson, 2018); other studies use the frames to critically assess a current event, social issue, or future trend (e.g., Heery, 2015; Kaufman, 2015; Tapia, Ibsen and Kochan, 2015); while least explicitly empirical are literature reviews

that sort studies into frame perspectives (e.g., Siebert, Brozic, and Docherty, 2015; Kandathiil and Joseph, 2017; Nash and Hann, 2020).

Fox certainly intended for the frames of reference model to have empirical application since he first explicated it in a research paper (Fox, 1966) submitted to the Donovan Commission (Royal Commission on Trade Unions and Employers' Associations), formed to identify causes of and solutions to Britain's increasingly fractious, conflict-prone, and inflation-troubled system of union-management relations. He positioned the FoR framework as a model and "analytical tool of social diagnosis" (p. 13) created from sociological theory with the purpose of explaining, "the way people behave and therefore the *pattern and temper* of industrial relations" (p. 1, emphasis added) and how "the problems of industrial relations can be seen more realistically and laid open to solution" (p. 2). In his follow-on book, Fox (1974: Ch. 7) uses the FoR framework to generate a typology of six "patterns of management-employee relations," with one or more case examples to illustrate each pattern type. In turn, the many tens of thousands of companies and enterprises in Britain spread across the six cells as if at "various points on the continuum" (p. 264).

Given that Fox created FoR as a tool to explain empirical patterns and spectrums of behavior, and that Heery (2016: 11) similarly speaks of seeking to "map the lines of difference" in frame perspectives between "the two ends of the IR continuum" (p. 242), it seems quite surprising and a major knowledge gap that, five decades on, no study known to us has sought to do a similar *empirical* mapping with lines of difference for a sample of firms or workplaces, such as from a large cross-section WERS-type data set (Workplace Employment Relations Survey, UK). The contribution of this paper is to take a first step.

Specifically, this paper uses a new four-country survey data set, the State of Workplace Employment Relations Survey (SWERS), with detailed workplace information collected from nationally-representative samples of 7,000+ non-supervisory employees in Australia, Canada, United Kingdom, and United States, to calculate and plot individual country-level distributions of workplaces ordered from lowest employment-relations 'temper' score to highest score. We measure workplace IR temper with a new construct created for this purpose, a "Relational Quality Index" (RQI), based on answers to six questions Fox identifies as key frame behavioral indicators. The RQI scores are graphed as frequency distributions for the four countries, showing not only the cross-section pattern of employment relations *within* each country but also the comparative pattern *across* the four countries. Two plausible boundary criteria are specified as the lines of difference that divide the distributions into low, medium, and high RQI workplaces and associated radical, pluralist, and unitarist frames. We then take the analysis another step forward and, with multiple regression and additional SWERS data, attempt to identify specific workplace attributes that explain the low-to-high pattern of RQI scores.

The paper starts with modest review of Fox's original theorization of frames of reference to establish context and foundation for the empirical analysis that follows. Interesting findings from the four-country empirical analysis are summarized at the end. Our purpose, it should be understood, is not to test or authenticate the frames model but identify and measure the proportion of workplaces (organizations, enterprises, firms, etc.) in each of the four countries that, as judged by their low-medium-high RQI score, fit respectively into radical, pluralist, and unitarist frames.

Fox's Frames of Reference: Theory Overview

We decided to base our empirical analysis on Fox's original three-frame model, which Heery (2016: 8) also did for his book-length treatment. In particular, Fox's model has withstood the test of time, represents the canonical version of frames of reference, and with fewer frames is easier to empirically operationalize. We endeavor, however, to put Fox's work in brief historical context -- not elsewhere done to the best of our knowledge -- for the value of certain insights and anchoring context.

Historical Context

Fox was not the inventor of the frames of reference concept for, as he (1966: 2) notes, "The concept is a familiar one in social science". The kernel of the idea dates back to the ancient Greek philosopher Protagoras (481-411 BC) and his aphorism that in human affairs every story has (at least) two sides. The term 'frame of reference' originated in 17th-century astronomy and physics (e.g., Newtonian mechanics) and only entered the social sciences in the 1930s, principally through social psychology where the German concept of *gestalt* was particularly influential. One of the earliest FoR definitions is given by psychologist Gordon Allport (1940: 24) in his presidential address to the American Psychological Association. He links FoR to the field of psycho-physics (also German-originated) and states as a definition: "Frame of reference has to do with any context [situation] whatever that exerts a demonstrable influence upon the individual's perceptions, judgments, feelings, or actions". Somewhat later, Clark (1953: 8) equates FoR with what today is called a paradigm, stating "It is the major shift in the social psychological reference frame from an approach that was atomistic and conative to one that can be termed interactional and dynamic". Another well-known example of dual frames of reference, partly inspired by social psychologist Kurt Lewin's application of gestalt psychology to management of organizational change, is McGregor's (1960) distinction between Theory X and Theory Y management philosophies --discussed by Fox (1974: Ch. 8) in the context of new organizational approaches to unitarism.

A literature search reveals the FoR term was also used, starting in the 1930s, in economics, sociology, and industrial relations (e.g., Dunlop, 1938), and the doctrine of harmony of interests goes back another century in libertarian political philosophy and laissez-faire economics. Although neither person used the frames term per se, earlier in the 20th century IR writers John Commons (1919) and Clarence Hicks (1941) presented Fox-type typologies of alternative employee management models and partly distinguished them by degree of opposed vs. common interests (Kaufman, 2003). Hicks (a corporate IR executive), for example, delineates three employer-employee relationship frames (Ch. 4, called "philosophies") -- autocratic, two antagonistic parties, and unity of interest. Commons, academic founder of the American IR field, posits five frames and says of them (p. 62), "They are assumptions, hypotheses, philosophies, 'principles' so-called, which are employed consciously or unconsciously, to explain the facts, or to guide the hunting of facts, or to weigh the facts, or to decide what to do in view of the facts."

Thus, as Fox notes, both the term and concept of frames of reference antedate him, although without question he remains the seminal IR originator. We have also included this historical sketch because it lends support to parts of our theoretical interpretation and empirical application of Fox's work. Examples include equating a frame with a paradigm perspective or model, treating a frame as more than an ideological/normative lens, and putting the central focus of frames theory on worker-management relations rather than managerial ideologies.

Fox on Frames of Reference

Theory is supposed to guide empirical analysis so modest review of certain parts of Fox's frames of reference model is needed. A review also helps establish that our interpretation and operationalization of the frames model is consistent with Fox's work.

Fox discussed IR frames of reference in several papers and books but the two most developed expositions are in the research report prepared for the Donovan Commission (Fox 1966) and chapter 6 in his book *Beyond Contract: Work, Power and Trust Relations* (Fox 1974) published eight years later. The most significant difference is that the Donovan report contains only two frames, the unitarist and pluralist, while the book chapter adds the radical frame. The radical frame is more often called the critical frame today. As mentioned above, a number of authors have also added additional frames to the original three or divided a given frame into two or more sub-frames.

The Donovan Commission was chartered in 1965 in response to the breakdown of the traditional system of centralized collective bargaining, the worsening disorder and conflict in worker-management relations at the enterprise level, and the deteriorating competitiveness of British industry. Fox's research report (34 pp.) was one of eleven submitted by outside experts. He outlines the frames of reference model in the first part and in the second part uses it to explain the pattern of industrial relations in selected industries. What follows is a brief FoR sketch, drawn mostly from the Donovan report but supplemented by the book chapter.

Fox (1966:1) begins the report noting he is an industrial sociologist and is presenting a theoretical framework and way of thinking – a *frame of reference* – from sociology to help bring clarity of analysis and realistic solutions to the problems of industrial relations. This connection is signaled by the report's title, *Industrial Sociology and Industrial Relations*. Fox states on p. 1 of the report that industrial relations is a multi-disciplinary field, of which sociology is one contributor, and its subject focus is *management-worker relations* and the various behaviors, problems and outcomes that grow out of these relations.

Fox (p. 1) says the sociological approach to explaining workplace problems is to develop an understanding of "the way people behave" by understanding the nature of the "total situation" within which their actions take place. The wellspring of IR problems, he says, is inside the organization where work is organized, managed, and performed within a situational web of roles, tasks, rules, supervision, and rewards/punishments and relations of authority, power, status, and social interaction. Fox speaks of these diverse elements of organizations as "structural determinants" of behavior, identifies them as parts of four internal systems – technical, social, authority/management, and governance, and explains that research studies (e.g., Woodward 1965) find the constituent elements of each system, and the four systems as an organizational whole, form into distinctive configurational patterns based on the characteristics of the underlying production technology. These different configurations and respective structures and elements create types of jobs, work conditions, management controls, employee groups, social relations, and organizational cultures that by the way they are humanly experienced generate predictable patterns in job satisfaction-dissatisfaction, positive-negative workplace attitudes, friendly-unfriendly relations, high-low effort and cooperation, unified-divided organizational culture, and high-low conflict, adversarialism, and desire for union protection and representation. Fox (1966: 25-28; 1974, Ch. 7) illustrates with case examples from coal mining, petroleum refining, tire manufacturing, electrical engineering, and dockyards.

Fox (1966) provides this succinct overview of the line of analysis and policy implications at the beginning of the report (p. 1, emphasis added),

A number of research inquiries are brought forward to show that the way people behave – and therefore the *pattern and temper of industrial relations* – is considerably affected by the technology with which they work, the way their job is organized and related to others, and various other so-called ‘structural determinants’. In other words, industry requires not only machinery and tools, but also social organization, and the nature of this social organization moulds the behavior of people within it.

The implication of this is that if there are *patterns of behavior* in certain industrial situations that we *wish to change*, the methods we choose for changing them will need to include *changes in the ‘structural determinants’* of behavior with the particular situation.

We highlight the word ‘temper’ in this quotation -- meaning in an IR context the state of mind and negative/positive feelings managers and workers have toward each other and their relationship -- because it is in generic form the construct we empirically operationalize and map into a worst-to-best distribution of workplace-level relations and then separate with alternative lines of difference into radical, pluralist, and unitarist segments. The normative ranking of “worst-to-best”, we note, also comes from Fox who postulates that higher workplace relational temper, other things equal, promotes greater workplace cooperation and discretionary effort (1966: 19; 1974: 258) which contributes to what he posits are widely accepted, socially-desirable outcomes of higher industrial efficiency, national economic competitiveness, and social order and solidarity (1966: 32; 1974: 260-64). To best achieve these social objectives requires, in turn, identifying the appropriate configuration of antecedent institutional, organizational, and employment relationship elements (aka ‘structural determinants’).

After this summary statement, Fox (p. 2) defines the key concept in the report, “frame of reference”. He states, “Each person perceives and interprets events by means of a conceptual structure of generalizations or contexts, postulates about what is essential, assumptions as to what is valuable, attitudes about what is possible, and ideas about what will work effectively. This *conceptual structure* constitutes the *frame of reference* of that person.” A frame of reference, therefore, is a cognitively organized X → Y explanatory model (or theory, principle, rule of thumb, etc.) people carry in their head and call on for guidance when facing the need to explain an event, make a decision, choose a course of action, evaluate an outcome, or anticipate what other people will do. A frame has an objective, fact-based part reflective of the reality of the situation and underlying laws of science and a subjective part that, like a psychological gestalt, is shaped, colored, and distorted by various human cognitive, emotional, and normative factors, such as selective perception, attitudes and attributions, treatment by others, social relativities, assessed procedural/distributive justice, personal values and social norms, and political beliefs and ideologies. For purposes of analysis, he (Fox, 1974: 356) treats the objective and subjective components of a frame as separable constructs with the subjective part *mediating* the relation between the objective frame situation and resultant behavior.

The Donovan Commission was formed because opinion was widespread that the system of industrial relations was breaking down into factional disorder and guerilla warfare as militant shop stewards and recalcitrant managers fought for control of the shop floor. Perspectives on the causes and solutions, however, ran the gamut from reactionary union suppression to revolutionary workers control with their advocates deeply split and pushing hugely divergent change programs. The reason for this babel of opinions and solutions, Fox said, is the people espousing them look at the problems of industrial relations through quite different and sometimes near-opposite interpretative frames and lens which, frequently, are greatly distorted by rival politics and ideologies. His report, therefore, is a social

scientist's effort to provide a realistic, research-based frame of reference for the dual purpose of bringing to attention the erroneous assumptions and distorted ideologies prominent in the public debate and outlining a more realistic, fact-consistent frame of reference that provides a better basis for understanding and improving industrial relations. The three-part message he communicates is: (1) some workplace problems, dissatisfactions, and conflicts are an inevitable feature of modern industry even if all parties work from the same objective, ideology-free frame of reference; (2) employment problems and conflicts become more frequent and intense, however, as the parties base their behaviors on increasingly divergent and ideologically-distorted frames of reference; and (3) if effective reforms and greater harmony are to be achieved, a realistic perspective, appreciation for the other side's situation, and joint problem-solving approach need to replace wishful thinking, unilateralism, and scapegoating.

Fox (1966: 13-14) describes the desired policy goal as a socially re-engineered institutional structure and set of organizational determinants (ΔX), complemented by less ideology and more realism, so the industrial relations system produces more orderly, cooperative, efficient, and socially just outcomes and relations (ΔY). He refers to desired Y outcomes as 'good,' 'healthy,' 'cooperative,' and 'orderly' industrial relations but does not delineate the content, criteria, and measurement of them.

A key behavioral premise in Fox's analysis is that the more compatible, shared, and aligned toward a common purpose are the organizational interests of the two sides of the employment relationship -- managers and workers -- the greater is the likelihood of a high-trust organizational climate and desired positive, high-temper IR outcomes (1966: 13; 1974: Ch. 1). As Marchington and Kitay (1996) explain, theorization requires significant abstraction in order to reduce complex reality into a bare minimum of essential constructs and relations. A frequently-used method, which they review and Fox adopts, is to create a typology in which a complex pattern or spectrum of elements is separated, typically on the basis of theoretical criteria, into structurally/behaviorally discrete categories or cells of a matrix. A well-known example is from human resource management (HRM) where researchers posit a causal relation between bundles of HRM practices (the X) and firm performance (the Y), distinguish alternative control and commitment practice bundles (X_1, X_2), and hypothesize $(\Delta Y/\Delta X_2) > (\Delta Y/\Delta X_1)$.

In real-life organizations, and across organizations in a national IR system, workplace-related interests -- that is, tangible/intangible things thought to bring advantage or benefit to a person, group or institution -- vary in hugely complex ways difficult to distinguish and measure. Each person, for example, has interests that attach to all the elements in their situation, the particular context of the situation and attitudes toward it, nature of the issue at hand, uncertainty of outcome and consequences, each person's organizational role and functional, sectional, and social group affiliations and identities, union/nonunion membership and accompanying beliefs, and political, moral and ideological commitments. For purposes of analysis, Fox (1966, 1974) collapses this diversity of interests into three organization-level categories, treated as theoretical/ideological frames of reference. The categories are defined with respect to the juxtaposition of interests between management -- the salaried agents of the organizational owners/shareholders -- and workers -- hired as wage labour -- who are the two parties to the contract of employment. He calls the three frames a *unitarist* organization with common/unified management-worker interests (real or believed), *pluralist* organization with a mix of common and opposed interests, and *radical* organization with fully opposed/conflicting interests. The frames have 'two faces', an ideal organizational type and a really-existing type.

The ideal-type analogy Fox uses to describe the unitarist organization is a team of people all pulling in the same direction, with connotation of a harmonious, energized, cooperative, high-performing organization united by common purpose, effective leadership, mutual gain and team spirit which thus yields healthy/productive industrial relations. People have different roles and positions, as on a football team or in a happy family, but the 'one for all and all for one' spirit prevents performance-sapping frictions and conflicts.

The radical organization is a team of people divided into two antagonistic classes, a high-paid/work-little group of powerful management order-givers and low-paid/work-hard group of dependent employee order-obeyers. Both sides believe a gain for one side means a loss for the other so, with fully opposed interests and strong mutual dislike/distrust, are motivated to pull in opposite directions, continually fight and retaliate with punishment and resistance, hope to liquidate the other, and together produce a low-performing organization with unhealthy industrial relations. The radical ideal-type replacement is worker-controlled organizations and a reconstructed form of unitarism, such as worker cooperatives in a market economy or enterprises owned and operated by the working class in a socialist economy.

The pluralist organization occupies the middle position among the three frames. As an ideal type, Fox (p. 2) describes it as a "miniature democratic state composed of sectional groups with divergent interests over which the government tries to maintain some kind of dynamic equilibrium." The pluralist perspective, therefore, views the organization as a coalition of people who for their separate reasons and interests agree to pull together under management direction to achieve the common purpose of a successful enterprise to which all their jobs and livelihoods are tied. But, because interests of employees and managers differ at many points and management holds the advantage in authority and power, the governance system needs to replace individual employment contracting with collective contracting and incorporate democratic principles of stakeholder interest representation, employee voice, checks and balances on power, and procedural due process in rule making and enforcement. Employers, however, resist power sharing and restraints on their authority so pluralism requires that employees have ready access to independent union representation and collective bargaining so the 'pulling together' is fair and balanced.

Fox adjusts to varying degrees the nature of the three frames when transposed into real life and other important factors are included. Among them are the human essence of labour, power inequalities, management styles, democratic governance, and organizational justice.

The largest adjustment happens with the unitarist frame. After reviewing the theory of unitarism, Fox turns to real life and concludes (1966: 4), "the whole view of industrial organization embodied in this unitary emphasis has long since been abandoned by most social scientists as incongruent with reality and useless for purposes of analysis." He later modifies this conclusion (p. 11) with the observation, "A generous paternalism tempered with a judicious recognition of the inevitable can take a company a long way" and, again, when he notes (p. 27) that a new de-layered, multi-skilled form of team organization based on socio-technical principles (citing Trist, et al. 1963) seems to create a win-win of higher economic performance and cooperative employment relations. Nonetheless, Fox portrays these cases as unstable exceptions that should not hide the larger reality that in most unitarist firms the management talk of common purpose, company team, mutual gain, and the rest is manipulative rhetoric meant to make employees think they are valued stakeholders with voice, participation and security so they voluntarily consent to working harder and cooperating more when, in truth, they remain an

instrumental means to produce more profit for shareholders and bankers and, enlightened sugarcoating aside, are paid, treated, and employed only as it advances this end. He argues that a significant cause of Britain's IR breakdown is because management's frame of reference is so distorted by unitarist ideology it can't see that military-like command/control and commodity-like treatment of labour no longer work and, in fact, further divide and alienate.

In the Donovan report, the pluralist frame undergoes a relatively small theory-to-practice adjustment because Fox considers it most congruent with the facts of organizational reality and human relationships. Indeed, Fox argues that shifting from theory to reality works in pluralism's favor. As an ideal type, unitarism is superior because everyone harmoniously pulls together to achieve the common purpose while the pulling together in a pluralist organization is weakened by conflicting interests and divided loyalties. In real life, however, unitarism may backfire if workers react to coercive authority by doing as little cooperative pulling as possible while workers in a pluralist organization are willing to put their shoulders to the collective wheel because they are better compensated, fairly treated, and protected in their jobs.

The theory-to-reality picture shifts, however, when Fox (1974) introduces the radical frame eight years later. Just as earlier the theory of unitarism was shown to be mostly an ideological façade for preaching common purpose and shared prosperity but practicing control and 'get more for less', now it is the turn of the radical frame to shine the harsh light of reality on the pluralist model and reveal it too is an instrument of capitalist class domination and exploitation of labour. In pluralist theory unions balance power in the organization and democratize the governance system but, in reality, the entire capitalist system is the coercive exploiter and unions are a sop that bring marginal improvements, preserve peace, and ideologically indoctrinate workers that it advances their interests to make more profits for their employers. The radical prediction is that workers eventually see through the ideological façade, realize their class interests are completely opposed to interests of capital, and polarization and conflict spread and deepen. Viewed through the normative lens of the unitarist and pluralist frames, these radical developments are seen as a worrisome deterioration in the temper, health, and functioning of industrial relations but, viewed through the normative lens of the radical frame, they are seen as a positive sign that the predicted crisis and overthrow of capitalism and its wage-labour form of industrial relations are growing closer. Capitalism represents bad, unhealthy industrial relation and its ideal-type radical replacement is a new unitarism of workers' ownership and self-management. Fox described in some detail the radical indictment of the 'really existing' side capitalist industrial relations – indicative to some degree of his own movement toward the radical frame, but only lightly touched on features of the ideal-type radical replacement (e.g., collective ownership of industry) and not at all on the reality of the radical frame as actually operationalized and practiced.

Empirically Mapping the Three Frames

We noted in the introduction what seems a large and surprising paradox. Over the five decades since Fox (1966) published his original paper on frames of reference, it has become one of the most – perhaps *the* most -- cited theoretical systems in the EIR field. Its trilogy of unitarist, pluralist and radical frames has also become the standard way to introduce and organize the subject (Heery, 2016). To the best of our knowledge, however, no study to date has translated the theoretical frame constructs into empirical versions and investigated how well they fit real organizations.

To be sure, a number of studies provide relevant evidence on what Fox (1966) refers to as the pattern and temper of industrial relations. The most detailed empirical mapping of the pattern and temper of employment relations has been done for Britain using the Workplace Employment Relations Survey (WERS), including chapters in *The Evolution of the Modern Workplace* by Brown, Bryson, Forth and Whitfield (2009) and the chapter “The Quality of Employment Relations” in Wanrooy, Bewley, and Bryson (2013). For Australia, a recent study by Wilkinson, Barry, Gomez, and Kaufman (2018) measures the ‘pulse’ of employment relations with a set of 39 indicators covering 2,000 workplaces, with citations to earlier studies from the Australian Workplace Relations Survey (2015) and Australian Workplace Industrial Relations Survey (1990, 1995). We are not aware of a recent empirical study of the state of employment relations in Canada, but for the U.S. the pattern of employment relations has been measured and mapped using a 50+ item score from a balanced scorecard instrument (Kaufman, Barry, Gomez, and Wilkinson 2018; Kaufman, Barry, Wilkinson, and Gomez, 2020). Also relevant are a Eurofound report (2018) that develops a four-item “Compass for ‘Good’ Industrial Relations” (industrial democracy, quality of work/employment, social justice, industrial competitiveness) and a study from South Africa (Potgieter, Olckers, and Ehlers, 2015) that develops a four item measure of perceived employment relationship quality (trust, fairness, good faith, justice). None of these studies, however, do an empirical mapping of data into Fox’s three frames of reference.

Not all theory is suited or created for empirical application, such as the pure-science or historical/evolutionary type. Fox (1966), however, clearly intends that frames of reference have empirical application for diagnosis and solution of industrial relations problems. An indicator is he compares industrial relations with medicine (pp. 15-16) and says both fields seek to identify and remedy causes of ill-health among their subjects. Toward this end, doctors rank people’s quality of health on a bad-to-good scale based on a cross-section of diagnostic tests and indicators covering the major body parts and functions which then are combined into an overall health score. Fox speaks of employment relations as ordered along a similar bad health-to-good health scale and portrays the frames model as a diagnostic tool of organizational systems able to identify both situational causes of sick/diseased relations and recommend changes in the structure of the situation to improve IR health. “Diagnosis determines prescription,” he says (p. 15), and many of the proposed remedies for Britain’s IR ‘sick man of Europe’ condition are faulty, he claims, because they look at the problem through a factually inaccurate, normatively distorted frame.

Besides helping to achieve better IR temper and inform IR practice and policy, Fox also presents frames of reference as a theory intended to provide $X \rightarrow Y$ explanation of empirical patterns in industrial relations, such as low-high variation in workplace temper. The structure and major components of his $X \rightarrow Y$ theory, as outlined above, can be schematically represented as the following sequence, with management and workers each having a frame equation they bring to the relationship: X driver variable [objective frame = total situation = (internal organizational structural determinants + external environment structural determinants) + normative/subjective frame = gestalt = (perceptions, attributions, values, ideologies)] \rightarrow cause-effect mediating mechanism [interest juxtaposition \rightarrow assessed situational trust/legitimacy \rightarrow workplace attitudes] $\rightarrow Y$ (behavioral patterns and temper).

Our objective with this paper, as stated in the introduction, is to take the three frames of FoR theory and empirically identify with a cross-section data set the proportion of workplaces that fit each category. In effect, our project is to map the theoretical typology into a matching empirical typology. Writing out Fox’s model in expanded equation form helps illuminate how we proceed and why. The goal is not to

empirically estimate or test the full $X \rightarrow Y$ model but describe with empirical data the distributional pattern of the X variable across unitarist, pluralist, and radical frames. To accomplish this, we started with an original research design (plan A) widely used in other studies of this type but discovered in the operationalization that specific aspects of frames theory make it unworkable. Therefore, by necessity we had to move to a more indirect plan B approach.

Researchers have proposed numerous EIR-related typologies (Kaufman, 2013; Wilkinson, Wood, and Deeg, 2014), such as alternative employment systems, HRM systems and labor control systems, which they then try to map with empirical data using various cluster, discriminant, factor analysis, and regression techniques. When the sorting is based on constructs designated in a theory, the set of attributes specified in the theory to distinguish categories within a construct (e.g., procedural vs. distributive justice) or between constructs (e.g., control vs. commitment HR system) are typically translated into matching variables in the data set and used in the statistical sorting to delineate category boundary lines. Our original plan A design was to identify unitarist, pluralist, and radical frames using this approach, given that Fox identifies in considerable detail a wide range of the organizational and employment-system structure determinants. A workplace in the survey data set, for example, for which an employee respondent assigns high scores for work satisfaction, competent/trustworthy management, ample voice and participation, fair dispute resolution, happy family culture, and no union coverage would be classified as unitarist while a workplace with opposite features (except perhaps either union/nonunion) would be classified as radical.

Unfortunately, this path from theoretical to empirical frames typology hits four roadblocks. Since they affect both the theory and empirical sides of frames of reference and have received small notice in the literature, we give each a short summary and locate it in the frames equation.

The first roadblock is that Fox and most subsequent writers give conflicting/non-commensurate definitions and conceptualizations of each frame so they lack construct validity. For example, the following organizational types are included in the unitarist frame (from Fox, 1966): a unified team-type organization, an authoritarian master-servant organization, a paternalist organization, a union suppression organization, and new-type socio-technical/participative management organization. Compounding the problem, unitarism is also characterized as identical interests, compatible interests, aligned interests, only management's interests count, employees have no choice but to serve management's interests, and workers don't realize their true interests. It is also not clear what separates the radical frame and the authoritarian/coercive version of the unitarist frame; and presence of a union is compatible with all three frames (e.g., forced on a unitarist employer, voluntarily accepted by a pluralist employer, regarded by radical workers as a capitalist collaborator)

Second, the subjective/normative component of the frames construct makes it impossible to establish a stable, well-defined connection from objective frame determinants to predicted frame behaviors. For example, because of ideological conditioning workers in an objectively radical frame may harmoniously cooperate as if in a unitarist frame. This identification problem is also exacerbated by subjectively-assessed contingencies with mediating variables. Open conflict, for example, may signal employee rebellion against a tyrannous employer, a healthy working out of differences, or sectional conflict between rival unions or Trotskyist/Stalinist factions. Similarly, absence of conflict may signal a contented workforce, suppression by an iron fist, or silent protest by slacking off or quitting. Cooperation can also be gained by positive inducement, negative coercion, or false consciousness.

Third, the frames differ by level of analysis, and management vs. worker perspective, so cannot be reliably determined. When collective bargaining replaces unitarist individual bargaining, a pluralist sees equal bargaining power, end of labour exploitation, and industrial democracy replacing autocracy. A radical, however, views the situation from a higher-level political economy perspective in which exploitation and wage slavery are inherent to capitalist society and collective bargaining ameliorates but does not eliminate these problems. Likewise, a manager and employee from the same workplace with a near-identical set of measured X determinants may, respectively, rate the employment relations climate as excellent and terrible.

Fourth, interests and their juxtaposition are a key part of the transmission mechanism from X to Y but, to substantial degree, are not a stable, reliable connector. Interests related to self-concept and basic physical, psychological and social needs and moral principles are largely stable elements but, more broadly, interests in organizational/employment contexts are malleable, endogenous, and interdependent. Interests attach to every element in a situation that brings advantage, real or perceived, and thus are situationally contingent and shaped by perceptions, attitudes, and values. Female workers may feel a clash of interests with companies that do not offer childcare benefits or flexible work hours but not so their male co-workers – until perhaps they have young children and a working spouse. Similarly, interests of workers and managers are not psychological constants, like personality, but change with attitudes and emotions which feedback into interest perceptions and, Fox (1974) theorizes, lead to reinforcing upward and downward spirals in interest juxtapositions. He also notes that the only predictable interest of an ‘economic man’-type manager is self-gain and everything beyond this is fungible, implying promises, commitments, and fair-dealing are honored only as long as they pay. With this in mind, Fox (1974: 266) observes, “There is nothing less constant than interest,” with the implication unitarist trust in company promises is a risky bet and, from a pluralist-realist perspective, it’s better to get the promise codified in a written union contract.

Because of these four problems, and the fact they are built into the model, our conclusion is it is not possible to obtain reliable frame estimates by following a deductive design in which a predesignated set of workplace structural, attitudinal, and behavior measures are used to map workplaces into the three frames. The plan B alternative is to get an indirect, inferential estimate of the size of the three frames through an inductive design. That is, if the deductive route of empirical identification – a reasoning chain from (1) theory says a unitarist frame is characterized by the following attributes, (2) this workplace has all of these attributes, (3) therefore this workplace is unitarist – is blocked for the reasons above, then an inductive path of empirical identification, albeit of weaker power, is available that, in effect, uses a form of reverse inference to identify frames. That is, the inductive approach goes (1) as a generalization, theory says unitarist workplaces exhibit harmonious, peaceful IR tempers, (2) this workplace exhibits these features, (3) therefore this workplace is unitarist. The advantage of the inductive method is it takes a simple, straightforward approach that bypasses all the complications and ambiguities woven into the theory and maps workplaces into frames based on observed low-to-high tempers. The downside is that this mapping is using the observed value of workplace temper Y (low/high) to infer backwards that it came from corresponding frame X (radical/unitarist) which, for several of the reasons enumerated above, may lead to an incorrect sorting (e.g., conflict is coercively suppressed, leading to upward bias in the temper score and possible mistaken allocation to pluralist or radical frames).

The Workplace Relational Quality Index (RQI)

A newly-designed construct, the workplace *Relational Quality Index (RQI)*, is the measure of the Y workplace temper variable used to inductively sort workplaces into unitarist, pluralist, and radical frame categories. It is created as a composite measure of six individual IR temper indicators reported by employees, with the idea that a high score on all six indicators (thus high RQI) is likely a reliable indicator the workplace is a common-interest unitarist-type employment relationship while uniformly low indicator scores and low overall RQI likely points to an opposed-interest radical employment relationship. RQI can also be measured at other levels of analysis, such as company or business unit.

To be able to map from RQI to the three frames, each frame needs a consistent, straightforward construct definition. For this purpose we define them in terms of their ideal types (per above): unitarist = harmony of shared purpose/interest → high RQI, radical = antagonism of opposed purpose/interest → low RQI, and pluralist is a mix of a common-opposed purpose/interest → middle-range RQI. Note that the survey responses that go into RQI are influenced by respondents' objective and subjective/normative evaluations of their situation and thus to varying degrees may reflect distorted perceptions and false consciousness. Since we cannot disentangle the two, and doing so involves problematic mind-body separation, we proceed on the assumption that what employees perceive and report is what counts for evaluating the temper of the workplace in the here and now.

The data source utilized is a recently completed, proprietary, nationally representative, four-country survey data set, the *State of Workplace Employment Relations Survey (SWERS)*. The four countries are Australia, Canada, United Kingdom, and United States, chosen because as English-heritage countries they have a common foundation in language, culture, and institutions that help standardize environmental frame determinants outside the workplace scope of the survey. A survey instrument of approximately one-hundred questions pertaining to a diverse set of workplace structural characteristics, management/HR practices, climate and attitudinal perceptions, and work-related behaviors was answered on-line in early 2016 by a panel of approximately 2,000 non-supervisory employees in each country (1,000 for Canada) pre-assembled by a professional workplace survey company (Opinion Research Corporation). The panel of respondents for each country was then further screened to include only people over the age eighteen, working at least 35 hours per week, and employed in a workplace of twenty or more people.

Each person was instructed to answer the questions for the part of the workplace, such as department, functional area, or business unit, for which the respondent had sufficient knowledge. Thus, while for expositional purposes we refer to the 'workplace' as the unit of observation, particularly for larger organizations respondents may have answered for a sub-unit. (For additional information on the design, structure, and sample properties of SWERS, see Wilkinson, Barry, Gomez, and Kaufman, 2018).

The intended function of RQI is to provide a summary measure of the state of workplace relations such that a low score signals a workplace approximating the radical frame, a medium score signals a pluralist frame, and a high score signals a unitarist frame. We chose six questions from SWERS to include in RQI. Four questions measure the respondent's assessment of important dimensions of *workplace relations*. The four are (each measured on a 1 = lowest/worst and 7 = highest/best scale):

- 1) Relations between management and employees
- 2) Employee morale
- 3) Friendly/sociable workplace environment
- 4) Family/partnership feeling

Also included are two observable behavior measures so RQI has a mix of subjective and objective criteria. They are (same 1-7 scale):

- 5) A lot of workplace conflict and infighting (scale inverted)
- 6) Employees tend to stay a long time (low turnover)

The conflict measure is an obvious FoR indicator. The turnover measure is perhaps less obvious, but we follow Fox (1974) who argues that heavy-handed management may suppress overt forms of conflict and therefore employee opposition is registered in other ways, such as quitting (an 'individual strike'). Omitted from RQI is a measure of interest juxtaposition because no such measure is available in SWERS.

The responses to the six questions are summed and averaged, yielding an RQI assessment measure for each of the 7,000+ respondents. The correlations among the six items for each of the four countries is shown in Table 1, along with the Cronbach alpha scores. The alpha scores are above .8 in each case, indicating the six items form an internally consistent measure.

[insert Table 1 here]

The frequency distribution of RQI scores for each country is shown in Figure 1. Since RQI is a continuous measure over the 1-7 scale, there are no clear-cut criteria for setting the boundary lines that separate radical, pluralist, and unitarist frames. We chose, therefore, two alternative statistical criteria. Both are calculated relative to the mean RQI score for the entire sample, given by the segmented line (point C) in the middle of the RQI scale.

The first criterion considers all workplaces within one standard deviation of the mean to be in the mixed-interest pluralist frame (approximately 68% of the sample). Accordingly, workplaces with scores lower than one standard deviation (the bottom 16%, point B) are in the radical frame and those with scores higher than one standard deviation (top 16%, point D) are in the unitarist frame. The second measure is more restrictive and sets the boundary lines at the lowest and highest 10% of RQI scores (points A and E). A weakness of the inductive approach, as indicated above, is that these lines of difference are suggestive indicators and not theory- or data-driven boundary lines per se. Even if approximations, however, one has to think, as argued below in more detail, that the bottom and top portions of the distributions, whether 16% or 10%, reasonably capture workplaces with employment relations approximating, as mean-centered generalizations of ideal types, radical 'worst place to work' situations and unitarist 'best place to work' situations.

[Insert Figure 1 here]

Broadly viewed, the four distributions have a roughly similar shape with some resemblance to a bell-shaped pattern, albeit with some skewness in the left-hand tail. A statistical test reveals, however, that they differ from each other at a .05 significance level, except for Canada and Australia. The mean RQI scores for the four countries are: Australia (4.46), Canada (4.51), UK (4.32), and US (4.62). Of the four countries, the UK has the least-positive RQI distribution and hence the most workplaces that locate toward the lower end.

The first issue is whether low-to-high variation in RQI does its intended job of sorting workplaces into a progression of frames from radical to unitarist. One divergence, at least on the surface, is the FoR model postulates discrete groupings or matrix cells, such as unitarist, pluralist, and radical, while RQI maps

workplaces into a continuous distribution. The discrete groupings, however, are idealized abstractions and in real life shade into each other, thus yielding a continuous distribution. Also, as the number of frames increases from, say, three (Fox, 1966) to nine (Cradden, 2017) the degree of separation diminishes and the frames progressively meld into a continuous function.

The more important substantive issue is whether low-to-high values of RQI provide a well-ordered, logically-congruent mapping into alternative frames reference. Following on the argument broached above, a way to judge is to consider if very low (high) scores on all six RQI elements match what one expects in a workplace approximating the radical (unitarist) frame; a second way to judge is consider if these very low/high scores could reasonably represent any other frame. Thus, assume that (1) relations between management and employees, (2) morale of the workforce, (3), the social environment, and (4) feeling of family/partnership are all rated very bad (e.g., a score of 1-2 out of 7) while (5) conflict/infighting and (6) employee turnover are rated very high. These conditions seem to epitomize radical workplace expectations while high scores (e.g., 6-7 out of 7) seem to well characterize the peace, harmony, and partnership climate of a (genuinely) unitarist workplace. It is difficult, in turn, to conceive as a matter of definition and logic that all low or high scores on the six RQI elements could be a product of any other frame, at least absent appeal to very sizable social conditioning/false consciousness. Finally, when some RQI elements are high but others are low, or all elements are approximately average (e.g., a 3.5-4.5 score out of 7), the index corresponds to the mixed pattern of the pluralist frame.

The RQI distributions in Figure 1 provide interesting, first-time empirical evidence on the state of employment relations for a nationally-representative cross-section of workplaces in each of these countries. These distributions represent a tangible measure of the ‘temper’ of employment relations that formed a central dependent variable in Fox’s original frames of reference model and, arguably, a paradigm-level dependent variable for the EIR field writ large (Kaufman, Barry, Gomez, and Wilkinson, 2018; Kaufman, 2019). If these distributions are a paradigm dependent Y variable, then a purpose of EIR meta-theory is to identify and explain the forces and factors that make some employment relationships highly conflictive and dysfunctional, others highly cooperative and productive, and the majority somewhere in the middle. Another EIR meta-theory objective is to identify and explain whether there are systematic forces in capitalist economies that work to maintain a roughly stable equilibrium in frames or, alternatively, shift the distributions rightward or leftward over time, and public policy measures that can promote the former (progressive improvement) and prevent the latter (systemic deterioration). Yet another objective is to discover new, redesigned, or expanded institutions and practices that can help individual firms improve their RQI performance and move rightward along a distribution.

Determinants of RQI: Regression Evidence

The second step in our FoR empirical analysis is to make RQI the dependent variable in a multiple regression with SWERS questions grouped to form explanatory X variables, per those suggested by Fox (1966, 1974) and others. Because the RQI distributions are similar across the four countries, we pool the SWERS data and estimate a single regression, with intercept dummy variables to control for individual-country effects. Common method bias is not a significant concern because all variables expressly reflect an employee perspective.

Explanatory Variables

The set of explanatory X variables we can form is limited by the questions in SWERS, although fortunately the data allow construction of a substantial number of FoR driver and contingency variables. Since respondents are non-supervisory employees, all SWERS scores reflect the employee perspective. Many of these variables are new constructs which appear for the first time in an empirical EIR/HRM study.

The full set of variables, including controls, is listed in Table 2 (see supplemental material online), with descriptive statistics on lowest, mean, and highest values (combined sample). Some questions are negatively framed and in these cases the response scores are inverted to match the positive-framed scores. A number of the variables are composites formed as the average score of between two and seven SWERS questions. All of the composite variables and underlying SWERS questions are listed in Table 3 (see supplemental material online). For each variable, the cross-correlation coefficients among the SWERS measures are shown and, also, the value of Cronbach's alpha. Of the eleven composite variables, Cronbach alpha scores are above the .7 threshold for all but two, with common interests an extremely close .69 and low-discretion jobs at .61.

The theoretical rationale for each of these explanatory variables and their expected relation with RQI has been discussed in preceding sections. Formally, however, based on the foregoing we expect the following hypothesized relationships (all *ceteris paribus*) between each of the twenty explanatory X variables (not including controls) and RQI dependent Y variable.

Common interests: Stronger employee perception of common interests reduces dissatisfaction and conflict, increases harmony and morale, and is expected to lead to higher RQI.

Positive management style: Positive forms of management, such as empowering, trusting, and engaging employees, are expected to lead to higher RQI.

Human capital quality: Workplaces with more capable, skilled, and competent people on both the management and employee sides are expected to have higher RQI.

HR practices: Workplace with greater investment in and use of core HR practices, such as selection, training, and performance management, are expected to have higher RQI.

Voice and communication: Greater two-way communication, information sharing, and opportunity for employee voice and involvement are expected to lead to higher RQI.

Distributive justice: When employees perceive the rewards they get from the organization fairly match their contribution, it is expected to lead to higher RQI.

Procedural justice: When employees perceive workplace rules, procedures, treatment, and dispute resolution are fairly designed and administered, it is expected to lead to higher RQI.

Wages & benefits: Workplaces in which employees perceive they receive above-average wages and benefits are expected to have higher RQI.

Positive non-financial features: Workplaces with attractive non-financial employee features, such as job security, advancement opportunities, and hiring from within, are expected to have higher RQI.

Low-discretion jobs: Workplaces with jobs that workers find tightly-controlled and boring are expected to have less satisfied employees and lower RQI.

Forced attachment: Employees who feel they are forced to work at their jobs because of lack of alternatives are expected to feel less satisfied and their workplaces have lower RQI.

Power x Trust Multiplier: Perceived low employee power to resist/change management's decisions and trust in management's fairness, typically co-varying in multiplicative form (Fox, 1974), lead to low RQI.

Cost-cutting pressure: Organizations that are under more intense pressure to cut cost have to take actions that employees don't like and thus are expected to lead to lower RQI.

Strong financial results culture: Organizations where management puts strong emphasis on financial goals/results puts priority on money over employees and is expected to lead to lower RQI.

Employees' desire for union/collective bargaining: Workplaces with employees who desire to have union representation and collective bargaining (none present) are expected to have lower RQI.

Union present in workplace: Workplaces that already have a union are expected by FoR pluralists to have higher RQI; for others, the relation may be zero or negative.

HR department: Workplaces that have an HR department in it, or are served by an HR department located elsewhere in the company, are expected to have higher RQI.

Workplace consultative committee: Workplaces that have some type of consultative employee representative council, forum, or committee are expected to have higher RQI.

Disruption in last 3 years: Workplaces that have experienced a significant organizational disruption, such as significant layoffs, downsizing, or acquisition, are expected to have lower RQI.

Regression Estimates

The results of OLS regressions are provided in Table 4. Two alternatives specifications are reported for robustness evidence. Column 1 specifies RQI in log form while RQI in column 2 is kept in numeric form. The findings of first-order importance for FoR remain largely the same across the two specifications but some second-order diversity appears.

[Insert Table 4 here]

In column 1 (log RQI), thirteen of the twenty explanatory variables are statistically significant at the .05 or .01 level and three others are significant at the .1 level. The four variables not statistically significant are wages & benefits, a workplace disruption in the last three years, employees with perceived forced attachment to the organization, and workplaces with a strong financial results-oriented culture.

Of the thirteen variables with $p < .05/.01$, ten have the expected sign but three have opposite signs. As hypothesized, workplaces with stronger common interests, more positive management style, higher human capital quality, stronger voice and influence, stronger procedural justice, stronger positive non-financial employment features, fewer low-discretion jobs, less cost-cutting pressure, a combination of lower power inequality and higher trust, and less competitive 'survivalist' culture have, on average, higher relational quality in workplace employment relations. Alternatively stated, changing the score on each of these variables in the indicated direction has the result, ceteris paribus, of moving the workplace rightward along the RQI frequency distributions in Figure 1 and, thus, closer to the unitarist frame or higher within it.

The three variables with signs opposite expectations are HR department, workplace consultative committee, and distributive justice. All three are surprising. It is possible that presence of an HR department and joint consultative committee are associated with greater formalization or bureaucratization of employment relations, leading to lower RQI. Alternatively, these variables may be positively correlated with firm size, which the nine SWERS categorical employment size variables may only imperfectly capture. Although not shown in Table 4, the three employment size groups which are statistically significant all have negative signs, thus giving this hypothesis some degree of possibility.

Presence of one or more unions in the workplace is statistically significant only at a .1 level but, given that, has a positive sign. This finding lends support to pluralist expectations that a union and collective bargaining improve workplace RQI, at least on average and within a range. Employees desire for a union and collective bargaining, where not available, also has an expected negative relation with RQI but at a weak .1 significance level. Contrary to expectations, more use of core HR practices has a negative relation with RQI, but again at a weak $p < .1$ level. Finally, four explanatory variables are not statistically significant, also contrary to hypothesis. They are wages/benefits, strong financial results culture, forced job attachment, disruption in last 3 years.

The majority of these findings hold up when RQI is instead entered in raw score form, per column 2. Ten variables again have the expected sign at $p < .05/.01$: common interests, positive management style, human capital quality, voice and influence, procedural justice, positive non-financial employment features, smaller employees' desire for union/collective bargaining, fewer low-discretion jobs, and less competitive culture all improve RQI. Three statistically-significant variables, however, have opposite-than-expected signs: more core HR practices, HR department present, and strong financial culture. Presence of a union falls to insignificance while a workplace disruption becomes weakly significant with the expected negative sign. More surprisingly, the power-trust multiplier variable turns insignificant. Two variables, wages/benefits and forced attachment, are insignificant in both regressions.

Regression Results: Implications

Overall, we judge the regression results to be strong and largely in a direction consistent with FoR expectations and logic. This finding gains significance because it is based on employee responses from over 7000 workplaces across four countries.

All of the twenty explanatory variables have good reason to influence workplace RQI but a subset are particularly germane to the FoR model. Since the central driver determining UPR frames is the employer-employee interest juxtaposition, this makes the 'common interests' variable in the regressions similarly central. The coefficient in both specifications is positive and highly statistically significant, which is also noteworthy since the three SWERS questions that comprise this variable have a somewhat weak internal consistency (alpha of .69), and indicates as expected that workplaces with a stronger perceived bond of common interests have stronger RQI.

Actually, the link between interest juxtaposition and state of workplace employment relations transcends FoR and is arguably the central paradigm principle in the EIR field. We are not aware of another empirical study that has so directly tested this proposition, so the fact it receives relatively strong support with data across four countries is a noteworthy finding. This paradigm support is also well-timed and propitious because the year 2020 marks the centenary *100th anniversary* of the EIR field in one of our four countries, the United States (Kaufman, 2004: 90).

Other core FoR variables positively related to RQI are a positive/participative management style, power and trust in the employment relationship, channels for employee voice and influence, employment practices that de-commodify labor (e.g., employment security), jobs providing employees with meaningful autonomy and task discretion, and an accommodative market environment. All of these variables are statistically significant in at least one of the two regression specifications and the majority in both. These results are again relatively strong support for basic FoR principles.

Our regression results on the role of unions are suggestive but not firm. Both regressions find that RQI is lower in workplaces that don't have a union and the employees want one. This finding is weakened, however, by a low ($p < .1$) statistical-significance level in one equation. Where workplaces have a union, the effect on RQI is positive but only with marginal significance in one equation and not different from zero in another. The pluralist hypothesis, therefore, that on balance introducing a union into a workplace that doesn't have one leads to improved employment relations – at least as employees perceive it – gets only a modest sliver of support.

Perhaps more provocatively – depending on the reader's frame of reference(!), the combination of regression findings just described and larger bunching of observations toward the right-hand unitarist tail, rather than left-end radical tail, in the RQI frequency distribution (Figure 1) suggest to us that some of the more hard-edged opinions of Fox (1966, 1974) and contemporary EIR radical-pluralist academics viz. the chimera of unitarism and inherent structured antagonism and class exploitation (Edwards, 2003; Kelly, 1998) in capitalist employment relationships are arguably overstated/over-negative.

A caveat is required, however, and is interestingly suggested by the FoR model itself. Looking across the four countries in this study, a radical/pluralist perspective is arguably strongest among UK academics and this fact, in turn, may be influenced by the UK's lowest position in the RQI continuum. That is, the more pluralist/radical-leaning state of employment relations in UK workplaces (on average), may plausibly imprint on that country's academics a negative-leaning interpretive/ideological perspective on the possibilities of mutual-gain, harmonious forms of unitarism created and sustained by high-caliber, professionalized managements. Of course, the opposite side of the framing coin is that US EIR/HRM academics, living in the country with the most favorable RQI distribution, are equally likely to have an over-optimistic perspective.

Our empirical findings also have potentially important implications for the long-running paradigm debate between EIR and HRM fields. Boiled down to a sentence, the EIR field maintains positive employment *relations* is the key to high workplace cooperation and productivity (Kaufman, Barry, Gomez, and Wilkinson, 2018) while the HRM field maintains it is extensive use of an aligned set of advanced HR practices. Our regression results, although suggestive and clearly subject to limitations, nonetheless tend to support the EIR position since common interests -- particularly with reduced power inequality and high trust -- have a statistically-significant *positive* effect on RQI while greater use of core HR practices has a statistically-significant *negative* effect.

A century ago Canadian W.L. Mackenzie King, in the first treatise written expressly on the new field of industrial relations (*Industry and Humanity*, 1918), hypothesized the following (p. 99-100):

Fundamental beyond all other considerations is the attitude of the parties to industry toward one another. If the relationship be one of antagonism or hostility, of a regard for opposed as contrasted with common interests, it matters little what the policies or methods [e.g., HR

practices] governing production may be, the foundations of economic and social development will be insecure.

Stated here is, first, the strategic priority the EIR field gives to positive interest juxtaposition in the employment relation – consistent with but preceding Fox by five decades and also advanced with greater optimism (e.g., Commons, 1919; also Hicks, 1941), and, second, the fundamental EIR hypothesis that *relations dominate practices* as the key determinant of workplace productivity and performance. Seen through this frame of reference, this paper not only carries forward a century-long intellectual tradition but also provides new empirical support for it.

Conclusion

The frames of reference model and distinction between unitarist, pluralist, and radical perspectives on the nature of employment relationships, first advanced by Fox (1966, 1974), is a central paradigm construct in the employment/industrial relations field. Although FoR is often cited and discussed, it has generated a paradoxically small follow-on empirical literature and no one, as far as we know, has assembled data and used quantitative methods to determine, respectively, how well the UPR frames map into empirical reality, the proportion of workplaces that locate in each frame, and the important factors and forces that influence the sorting of workplaces across frames. Thanks to the recent availability of a new four-country survey data set, the State of Workplace Employment Relations Survey (SWERS), we have been able to initiate this long overdue part of the FoR research program.

A particular challenge in empirically operationalizing the FoR model is its constructs and cause-effect relations are a non-separable mix of objective, subjective, and normative/ideological elements. To circumvent this complexity, we devised a new construct, called the Relational Quality Index (RQI), which maps from ‘worst employment relations’ to ‘best employment relations’ the 7000+ workplaces in SWERS based on six indicators of relational quality/health that broadly differentiate unitarist, pluralist, and radical frames. Plotting the RQI scores produces a frequency distribution, in this case separately done for Australia, Canada, UK, and US, which gives a statistical and visual portrait of workplaces rank ordered by their state of employer-employee relations. The distributions for the four countries have a roughly common shape and location along the RQI scale with evidence of a large middle range of pluralist-type workplaces and smaller groupings of radical- and unitarist-type workplaces toward the bottom and top tails, albeit with somewhat higher concentration in the top unitarist end.

SWERS data are then used to construct a large set of independent variables hypothesized to explain and predict a workplace’s RQI score. Using regression analysis, we find per expectations that greater perceived common interests are associated with higher RQI, along with a wide range of other factors (e.g., positive/participative management style, strong employee voice/influence channels, high-quality management/workforce human capital). Surprisingly, however, more extensive use of core HR practices, and presence of an HR department, have a negative association with RQI. Thus, we think these empirical findings are of double interest, first because they provide an empirical mapping and portrait of the state of employment relations for 7000+ companies across four countries and, second, the regression results suggest that the *EIR field’s* paradigm priority given to *positive relations* dominates the *HRM field’s* paradigm priority given to *HR practices*. But, of course, the longstanding caveat ‘needs more research’ applies.

Supplemental Material

Supplemental material for this article is available online.

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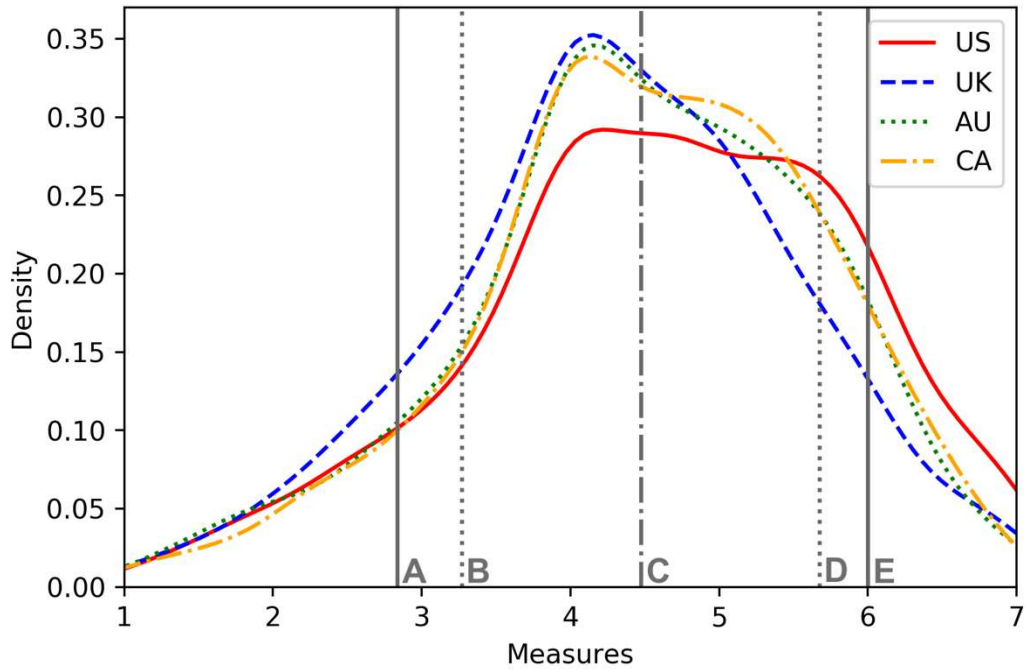


FIGURE 1. Relational Quality Index (RQI) Four-Country Frequency Distributions

NOTES: the cut offs for the five vertical lines are based on the full sample RQI score and are defined as follows: A = bottom 10% (2.83), B = 1 standard deviation below the mean (3.27), C = mean (4.47), D = 1 standard deviation above the mean (5.68), E = top 10% (6.00).

TABLE 1. RQI: Correlations and Cronbach's alphas

<i>Full Sample</i>						
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
1. Great relations between management and employees	1.00					
2. Great employee morale	0.81	1.00				
3. Enjoyable co-workers, friendly workplace environment	0.66	0.67	1.00			
4. Employees tend to stay a long time at my workplace	0.49	0.49	0.48	1.00		
5. Minimal conflict or infighting	0.38	0.36	0.32	0.22	1.00	
6. Strong family/partnership feeling	0.63	0.64	0.52	0.41	0.26	1.00
<i>Cronbach's alpha: 0.854</i>						
<i>Australia</i>						
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
1. Great relations between management and employees	1.00					
2. Great employee morale	0.81	1.00				
3. Enjoyable co-workers, friendly workplace environment	0.66	0.67	1.00			
4. Employees tend to stay a long time at my workplace	0.48	0.47	0.49	1.00		
5. Minimal conflict or infighting	0.39	0.37	0.33	0.21	1.00	
6. Strong family/partnership feeling	0.63	0.64	0.51	0.39	0.26	1.00
<i>Cronbach's alpha: 0.856</i>						
<i>Canada</i>						
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
1. Great relations between management and employees	1.00					
2. Great employee morale	0.81	1.00				
3. Enjoyable co-workers, friendly workplace environment	0.63	0.62	1.00			
4. Employees tend to stay a long time at my workplace	0.48	0.49	0.47	1.00		
5. Minimal conflict or infighting	0.39	0.36	0.32	0.23	1.00	
6. Strong family/partnership feeling	0.65	0.66	0.50	0.37	0.25	1.00
<i>Cronbach's alpha: 0.850</i>						
<i>United Kingdom</i>						
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>

1. Great relations between management and employees	1.00					
2. Great employee morale	0.80	1.00				
3. Enjoyable co-workers, friendly workplace environment	0.64	0.64	1.00			
4. Employees tend to stay a long time at my workplace	0.49	0.48	0.46	1.00		
5. Minimal conflict or infighting	0.38	0.36	0.29	0.21	1.00	
6. Strong family/partnership feeling	0.61	0.61	0.48	0.38	0.29	1.00
<i>Cronbach's alpha: 0.850</i>						

<i>United States</i>						
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
1. Great relations between management and employees	1.00					
2. Great employee morale	0.82	1.00				
3. Enjoyable co-workers, friendly workplace environment	0.70	0.70	1.00			
4. Employees tend to stay a long time at my workplace	0.50	0.52	0.49	1.00		
5. Minimal conflict or infighting	0.36	0.34	0.34	0.23	1.00	
6. Strong family/partnership feeling	0.63	0.66	0.57	0.45	0.23	1.00
<i>Cronbach's alpha: 0.854</i>						

Goes in online appendix

TABLE 2. Means of Variables (Pooled Data)

<i>Variables</i>	<i>Low RQI</i>	<i>High RQI</i>	<i>Full Sample</i>
<i>RQI</i>	3.55	5.48	4.47
Great relations between management and employees	3.33	5.66	4.44
Great employee morale	3.11	5.53	4.27
Enjoyable workplace environment	4.06	5.91	4.94
Low employee turnover	3.94	5.67	4.77
Minimal conflict and infighting	3.64	4.98	4.28
Strong family/partnership feeling	3.25	5.13	4.14
<i>Common interests</i>	3.35	4.61	3.95
Management's decisions consistent with employees are most important asset	3.56	5.40	4.44
Inverse: top execs more concerned with making money/advancing careers than building successful organization	3.23	4.16	3.68
Inverse: employees disconnected and don't care what management says/does	3.26	4.26	3.74

<i>Positive management style</i>	3.36	5.04	4.16
Managers good at getting employees engaged	3.30	5.41	4.31
Managers good at getting employees focused on organizations goals	3.54	5.55	4.50
Managers good at empowering and trusting employees	3.58	5.66	4.57
Command-control (1) vs collaborative-commitment (7) style	3.17	4.54	3.82
Stick (1) vs carrot (7) motivation methods	3.48	4.87	4.14
Management highly effective in managing employees and getting their best performance	3.32	5.09	4.16
Inverse: management does not effectively deal with low-performers	3.13	4.17	3.63
<i>Human capital quality</i>	3.77	5.61	4.65
First class management team	3.41	5.50	4.41
First class team of employees	4.13	5.71	4.89
<i>HR practices</i>	3.41	5.11	4.22
Organization invests in careful recruiting	3.40	5.09	4.21
Organization invests in training	3.40	5.13	4.23
Organization does ongoing performance management, set goals, regular feedback	3.41	5.11	4.22
<i>Voice and communication</i>	3.23	5.17	4.15
Employee voice/involvement in getting work done	3.37	5.48	4.38
Internal communication to employees	3.23	5.24	4.19
Extensive employee listening and opinion methods	3.07	4.79	3.89
<i>Distributive justice</i>	3.41	4.68	4.02
Job a great value proposition for employee	3.85	5.55	4.66
Inverse: increasing demands on employees, but no give back from organization	3.01	4.13	3.54
Inverse: organization does not fairly share the money with employees	3.37	4.36	3.84
<i>Procedural justice</i>	3.35	4.77	4.03
Management treats employees fairly	3.68	5.75	4.67
Formal, impartial work dispute process	3.57	5.30	4.40
Inverse: people in power have a different set of rules than employees	3.12	3.90	3.49
Inverse: favoritism/discrimination at work	3.26	4.64	3.92
Inverse: lack of appreciation/recognition for the good job I do	3.00	4.49	3.71
HR department is an effective way to handle complaints/grievances	3.48	4.56	4.00
<i>Wages & benefits</i>	3.35	4.75	4.02
Good pay for qualifications	3.56	5.15	4.32
Good benefits	3.64	5.27	4.42

Part of pay is variable, pay for performance	2.85	3.82	3.31
<i>Variables</i>	<i>Low ROI</i>	<i>High ROI</i>	<i>Full Sample</i>
<i>Positive non-financial employment features</i>	3.65	5.35	4.46
Job security	3.96	5.75	4.82
Great advancement opportunities	3.22	5.02	4.08
Great at providing job resources to employees	3.74	5.63	4.64
Policy of first hiring from within the organization	3.68	5.20	4.41
Organization provides flexible work arrangements	3.64	5.16	4.37
<i>Low-discretion jobs</i>	3.81	2.95	3.40
Job is boring/meaningless/unpleasant	3.68	2.64	3.19
Job is tightly controlled and monitored	3.93	3.27	3.61
<i>Forced attachment</i>	4.62	3.49	4.08
Only work here because need the money	4.87	3.81	4.36
Feel stuck in this job and going nowhere	4.55	3.24	3.92
Not easy to get a different job	4.43	3.43	3.95
<i>Power x trust multiplier</i>	22.70	12.13	17.65
Employees lack protection/say	4.67	3.42	4.07
No trust/confidence in management	4.64	2.97	3.84
<i>Cost-cutting pressure on organization</i>	4.69	4.38	4.54
<i>Strong financial results culture</i>	4.29	4.51	4.40
<i>Strong competitive culture; survival of the fittest</i>	3.93	3.95	3.94
<i>Employees' desire for union/collective bargaining (none present)</i>	3.70	3.56	3.63
<i>Union present in workplace</i>			
No	0.67	0.69	0.68
Yes	0.33	0.31	0.32
<i>HR department in, or serves, this workplace and employees</i>			
No	0.24	0.22	0.23

Yes	0.76	0.78	0.77
<i>Workplace consultative committee present</i>			
No	0.50	0.34	0.42
Yes	0.21	0.39	0.29
Don't know	0.29	0.27	0.29
<i>Disruption in the last 3 years in the organization</i>			
No	0.46	0.64	0.55
Yes	0.37	0.26	0.32
Don't know	0.17	0.10	0.13
<i>Organization size</i>			
21-50	0.10	0.13	0.11
51-100	0.10	0.13	0.12
101-500	0.20	0.19	0.19
501-1000	0.09	0.10	0.10
1001-5000	0.15	0.15	0.15
5001-10000	0.09	0.08	0.09
10001-25000	0.07	0.06	0.06
25001-100000	0.09	0.07	0.08
100001-250000	0.03	0.03	0.03
250000+	0.08	0.06	0.07
<i>Ownership</i>			
For profit	0.59	0.58	0.58
Non-profit	0.11	0.13	0.12
Government	0.16	0.14	0.15
Public institution	0.14	0.15	0.15
<i>Variables</i>			
	<i>Low RQI</i>	<i>High RQI</i>	<i>Full Sample</i>
<hr/>			
<i>Industry</i>			
Agriculture, forest, and fishing	0.01	0.01	0.01
Mining, quarrying, oil drilling	0.01	0.01	0.01
Construction	0.02	0.03	0.03
Manufacturing – durable	0.05	0.05	0.05
Manufacturing – nondurable	0.04	0.04	0.04

Transportation	0.06	0.04	0.05
Utilities	0.02	0.02	0.02
Communications/media	0.02	0.02	0.02
Retail stores/suppliers	0.10	0.08	0.09
Wholesale distributors/suppliers	0.02	0.02	0.02
Food, dessert, drinking	0.02	0.02	0.02
Finance, banking, insurance, real estate	0.05	0.06	0.06
Personal/consumer services	0.01	0.01	0.01
Business/professional services	0.05	0.06	0.05
Medical/health services	0.13	0.12	0.12
Accommodations and lodging	0.01	0.01	0.01
Recreation, entertainment, travel services	0.02	0.02	0.02
Education	0.12	0.17	0.14
Non-profit /charitable	0.02	0.03	0.02
Government/public administration	0.12	0.10	0.11
Other industry not listed	0.06	0.05	0.05
Unknown	0.04	0.03	0.05
<i>No. of Observations</i>	3763	3440	7203

Goes in online appendix

TABLE 3. Regressor Scores: Correlations and Cronbach's Alphas (Pooled Data)

<i>Human capital quality</i>	1	2	
1. First class management team	1.00		
2. First class team of employees	0.68	1.00	
Cronbach's alpha: 0.80			
<i>Low-discretion jobs</i>	1	2	
1. Job is boring/meaningless/unpleasant	1.00		
2. Job is tightly controlled and monitored	0.44	1.00	
Cronbach's alpha: 0.61			
<i>Common interests</i>	1	2	3
1. Management's decisions consistent with employees are most important asset	1.00		
2. Inverse: top execs more into advancing career than building successful organization	0.29	1.00	
3. Inverse: employees disconnected and don't care what management says/does	0.31	0.59	1.00
Cronbach's alpha: 0.69			
<i>Distributive justice</i>	1	2	3
1. Job a great value proposition for employees	1.00		
2. Inverse: increasing demands on employees, but no give back from organization	0.35	1.00	
3. Inverse: organization does not fairly share the money with employees	0.32	0.62	1.00

Cronbach's alpha: 0.72

<i>Forced attachment</i>	1	2	3
1. Only work here because need the money	1.00		
2. Feel stuck in this job and going nowhere	0.50	1.00	
3. Not easy to get a different job	0.50	0.63	1.00

Cronbach's alpha: 0.79

<i>HR practices</i>	1	2	3
1. Organization invests in careful recruiting	1.00		
2. Organization invests in training	0.80	1.00	
3. Organization does ongoing performance management, set goals, regular feedback	0.70	0.74	1.00

Cronbach's alpha: 0.91

<i>Voice and communication</i>	1	2	3
1. Employee voice/involvement in getting work done	1.00		
2. Internal communication to employees	0.69	1.00	
3. Extensive employee listening and opinion methods	0.65	0.73	1.00

Cronbach's alpha: 0.88

<i>Wages & benefits</i>	1	2	3
1. Good pay for qualifications	1.00		
2. Good benefits	0.76	1.00	
3. Part of pay is variable, pay for performance	0.32	0.31	1.00

Cronbach's alpha: 0.72

<i>Positive non-financial employment features</i>	1	2	3	4	5
1. Job security	1.00				
2. Great advancement opportunities	0.56	1.00			
3. Great at providing job resources to employees	0.60	0.65	1.00		
4. Policy of first hiring from within the organization	0.46	0.54	0.51	1.00	
5. Organization provides flexible work arrangements	0.44	0.49	0.49	0.42	1.00

Cronbach's alpha: 0.84

<i>Procedural justice</i>	1	2	3	4	5	6
1. Management treats employees fairly	1.00					
2. Formal, impartial work dispute process	0.62	1.00				
3. Inverse: people in power have diff set of rules than employees	0.26	0.21	1.00			
4. Inverse: favoritism/discrimination at work	0.43	0.36	0.54	1.00		
5. Inverse: lack of appreciation/recognition for the good job I do	0.45	0.38	0.50	0.64	1.00	
6. HR department is an effective way to handle complaints/grievances	0.37	0.43	0.17	0.24	0.27	1.00

Cronbach's alpha: 0.81

<i>Positive management style</i>	1	2	3	4	5	6	7
1. Managers good at getting employees engaged	1.00						
2. Managers good at getting employees focused on organizations goals	0.86	1.00					
3. Managers good at empowering and trusting employees	0.80	0.82	1.00				
4. Command-control (1) vs collaborative-commitment (7) style	0.51	0.47	0.46	1.00			
5. Stick (1) vs carrot (7) motivation methods	0.55	0.53	0.53	0.53	1.00		
6. Management highly effective in managing employees and getting best performance	0.69	0.66	0.63	0.49	0.53	1.00	
7. Inverse: management does not effectively deal with low-performers	0.36	0.35	0.32	0.23	0.26	0.37	1.00

Cronbach's alpha: 0.89

TABLE 4. OLS Regressions: RQI - Logs and Levels (Pooled Data)

<i>Independent Variables</i>	<i>Dependent Variable:</i> <i>log(RQI)</i>	<i>Dependent Variable:</i> <i>RQI</i>
	(1)	(2)
Common interests	2.835*** (0.277)	11.791*** (0.904)
Positive management style	4.656*** (0.427)	17.382*** (1.425)
Human capital quality	5.443*** (0.290)	20.709*** (0.904)
HR practices	-0.464* (0.252)	-1.645** (0.834)
HR department in, or serves, this workplace and employees	-1.545*** (0.461)	-6.068*** (1.502)
Voice and communication	2.739*** (0.290)	11.772*** (1.029)
Workplace consultative committee present	-1.089** (0.469)	-1.219 (1.595)
Distributive justice	-1.286*** (0.284)	-1.549 (0.985)
Procedural justice	1.341*** (0.392)	7.510*** (1.363)
Wages & benefits	0.109	-0.983

	(0.237)	(0.822)
Positive non-financial employment features	6.860***	25.636***
	(0.376)	(1.246)
Low-discretion jobs	-1.000***	-4.780***
	(0.220)	(0.676)
Cost-cutting pressure on organization	-0.509***	-0.600
	(0.179)	(0.554)
Strong financial results culture	0.090	1.206**
	(0.180)	(0.540)
Union present in workplace	0.738*	1.673
	(0.410)	(1.382)
Employees' desire for union/collective bargaining (none present)	-0.299*	-1.713***
	(0.169)	(0.540)
Power x trust multiplier	-0.218***	-0.097
	(0.032)	(0.097)
Forced attachment	0.295	-0.717
	(0.257)	(0.849)
Disruption in the last 3 years in the organization	0.127	-2.467*
	(0.452)	(1.485)
Strong competitive culture; survival of the fittest	-0.383**	-2.570***
	(0.190)	(0.563)
Workplace characteristics	Y	Y
Country dummies	Y	Y
Industry dummies	Y	Y
R-squared	0.79	0.83
No. of Observations	7203	7203

NOTES. OLS regression coefficients. Full cross-country sample used. Robust standard errors in parentheses (HC1). Workplace characteristics include organization size by employment and ownership structure. Mean imputation and unknown categories were used to ensure no listwise deletion. *** p<0.01, **p<0.05, *p<0.1. Dependent variables scaled by 100 to aid interpretation (log(RQI)*100, RQI*100).