
Special Issue Editorial

Strategic Human Capital: Crossing the Great Divide

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Strategic human capital has emerged as an area of interest in both the strategy and human resources management literatures, yet these literatures have developed without adequate interdisciplinary conversation. The special issue on strategic human capital sought to bridge this divide through creating a platform for researchers from both fields to engage in dialogue. In addition to commenting on both the journey and destination of the special issue, we explore the manifestations of this divide and identify six issues that emerged that could provide areas of common interest across the two fields.

Keywords: *human capital; strategy; strategic HRM; resource-based view of the firm*

The Jain version of the blind men and the elephant tells the story of six blind men who are asked by a king to describe the elephant. Each man feels a different part and describes the elephant in terms of something he can explain (e.g., the one feeling the tail says it is like a rope, the one feeling the ear describes it as like a hand fan, the one who feels the tusk likens it to a pipe). Many use the story to illustrate that no one's subjective experience completely describes a phenomenon.

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Like the blind men and the elephant, since the economist Becker (1964) proposed “human capital theory,” the study of human capital has emerged across a variety of disciplines. Within the management discipline, both the strategy and human resources management (HRM) fields have devoted considerable attention to the concept of human capital, yet these two areas seem to have emerged along separate, but somewhat parallel, paths (Wright & McMahan, 2011). This has resulted in a “great divide” as two fields explore the same phenomena, but coming at their respective explorations from different lenses, using different approaches, and asking different questions. Recently the term *strategic human capital* (SHC) has emerged in an endeavor to integrate scholarship in these two domains. Such integration conceptually holds promise, inasmuch as it might facilitate cross-disciplinary research that sheds greater light on both the construct and the theory’s application to organizations.

In support of this integration, we developed this special issue with two primary objectives: to address unexplored questions at the intersection of HRM and strategy and to foster an interdisciplinary dialogue between strategy and HRM scholars. As you will see, and in the interest of “full disclosure,” we did not fully achieve our objectives. However, in the process of creating this volume, we did identify some of the major issues that have emerged in this domain. Future consensus among SHC researchers in these areas might help to promote stronger theory and research and a clearer dialogue across the fields.

In this opening article, we break our discussion into four areas. First, we specifically examine the extent to which we were able to accomplish the two objectives we set with this special issue. Second, we present a basic framework for exploring SHC issues. Third, we identify six specific theoretical and empirical challenges emerging within this basic framework and show how the papers within this issue explore these problems. Finally, we propose some future directions for bridging what has become the great divide.

The Special Issue: Objectives and Outcomes

Objective 1: Exploring New Terrain

The first goal we set for this special issue was to explore new terrain regarding SHC. In reflecting on the journey this special issue has traveled across this terrain, we find it interesting to recall the questions we initially proposed to encourage exploration at the frontier of HRM and strategy perspectives on human capital. In particular, the call for papers identified four potential topical areas that we felt would be both important and interesting:

- When does human resources (HR) strategy tend to take place outside of HR departments (e.g., startups or professional service firms, where many HR decisions are made by line managers)?
- What policies may be especially critical to sustaining competitive advantages (e.g., clear evidence/logic for why rivals could not implement such policies)?
- How does human capital challenge basic strategy constructs, such as competitive advantage, given that the resources cannot be owned by the firm?
- How can human capital be integrated with other resources, such as social or organizational capital?

As our review of the papers later in this editorial will suggest, the first three of these topics gained little traction with the submitting authors. Our call may not have allowed sufficient

time for new inquiry of this type to take root. Relatedly, it may well be that these three questions essentially require that researchers consider “the whole elephant,” and not just the part before them. Indeed, as we discuss momentarily, we found that the scholars engaged in the human capital literature often find it challenging to work outside of their theoretical and empirical spheres of comfort. For whatever reason these topics are not covered in the current volume, our hope is that future research will take up them up: We still find these questions both interesting and worthy of scholarship. In contrast, the fourth topic generated some considerable interest: Half of the accepted papers focused in some manner on the interplay between human and social capital theories. This, too, is interesting, since it indicates that human capital research is at a point of development where scholars are beginning to examine research questions that emerge from the integration of other theoretical perspectives. Taken together, the pattern of submissions we saw suggests that when researchers look outside their accustomed perspective on human capital, they are looking to other theories rather than expanding their perspective on human capital theory per se: Rather than seeking to explain the whole elephant, they seek to examine how the part they see is associated with and impacted by other “animals” they perceive in the theoretical ecosystem.

Objective 2: Integrating Strategy and HR Research on Strategic Human Capital

Our second objective was that the special issue be a platform for bringing together the distinct strategy and HRM research populations to collaborate in moving forward their shared interest in SHC. Indeed, in modeling this collaborative integration ourselves, in the review process, we tried to include a strategy and HRM reviewer for each paper. In this way, we endeavored to ensure that papers would be developed in a way that would attract both research populations.

While we maintain that an integration of the HRM and strategy perspectives on SHC is—and should be—an ongoing concern for scholars working in this domain, pairing two reviewers from the different traditions revealed the depth of the divide between these two perspectives. Prior research has noted the differences in the way that the strategy and HRM literatures conceptualize and study SHC (Coff & Kryscynski, 2011; Ployhart & Moliterno, 2011; Wright & McMahan, 2011): When used as two lenses through which to examine a particular piece of research, these differences became profound. To charitably describe what we observed, we would note that strategy and HRM reviewers agree on what is bad, but they find great difficulty in agreeing on what is good. In the reviews of the initial submissions, a number of manuscripts received reject recommendations from both reviewers. However, in the papers that we invited for revision, we frequently found that one reviewer rejected the paper and the other encouraged a revision. While split decisions are not unusual, what was different was the level of disagreement. In a number of cases, the positive reviewer was *very* positive (e.g., “This is an important piece of work”) while the negative reviewer was *very* negative (e.g., “Publishing this piece would do a disservice to the field”).

More specifically, pairing reviewers from the different disciplines revealed different research and statistical paradigms. First, differences emerged regarding the quality of measures. Strategy-oriented manuscripts often faced criticism by HRM reviewers regarding the psychometric qualities of their measures. Generally trained in microlevel research

methodologies, HRM reviewers often focused on reliability (internal consistency and/or interrater) as an absolutely necessary criterion for any measure. However, the strategy researchers who submitted work for the special issue often worked with archival data and thus did not (or could not) assess the reliability of their measures. Thus, conflicts arose regarding the psychometric quality of the measures used by the strategy authors, and these issues simply cannot be resolved.

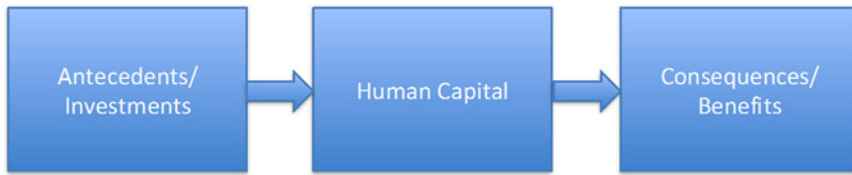
Second, and relatedly, divergent views of theory were also manifest. Strategy researchers place great emphasis on the quality of the “story” told in the theoretical development of their research. In essence, this effort may be described, at least partially, as delineating the unmeasured—albeit conceptually valid—mechanism(s) that take(s) place in the relationship between two constructs. While this type of conceptual theorizing helps frame the associations of interest, it also does not anticipate—or rely upon—empirical measurement of all elements of the framework. Reviewers coming from the HRM tradition found this approach lacking. On the other hand, the manuscripts authored by HRM-oriented researchers faced criticisms from strategy reviewers regarding their theory because the basic psychology paradigm focuses more on describing the direct relationship between two variables or, at most, one unmeasured step between them. Strategy reviewers likewise found this approach theoretically “light.”

Finally, different statistical backgrounds accounted for differences between HRM and strategy researchers. Many HRM researchers are trained in statistics within a psychology paradigm where construct validity is paramount and endogeneity concerns are considered less important. In contrast, many strategy scholars are trained in econometrics, where endogeneity is a nontrivial statistical concern and construct validity receives less attention. Thus, where strategy reviewers for the special issue frequently focused on endogeneity as an empirical concern, HRM reviewers often focused on construct validity. In both cases, authors from the *other* discipline wrestled with how to make sense of the reviewer’s critique of their methodology.

As a practical matter, these dynamics pushed us, as editors, to consider more specifically who the audience might be for each paper and assess the extent to which the issues raised would limit the paper’s impact. As an immediate response to the state of the field such as we encountered it, this approach indicates that we expect contributions to continue to be domain or paradigm specific; it also points to inherent challenges in integrating and contributing across literatures. Progress in integrating the strategy and HRM human capital literatures will require compromise as authors learn to address a broader range of methodological issues and to apply a broader range of theoretical lenses. We believe that these compromises can result in new and impactful directions in the literature . . . but this progress may not come easily or quickly.

In summary, the special issue came short of addressing many of the unexplored issues at the intersection of strategy and HRM, and the process seemingly identified (rather than rectified) the divergent perspectives across the two disciplines. We share these reflections on the journey the special issue traveled because they offer an interesting snapshot of where we are as a field. While it would be impossible to conclude that a single, integrative approach to studying SHC has emerged, the papers included in this issue do provide valuable insights and point to some of the challenges the field faces going forward. To explain how, we next

Figure 1
The Domain of Strategic Human Capital Research



propose a framework for the broad landscape of SHC research, and then use that framework to discover insights and issues foundational to the continued evolution of the field.

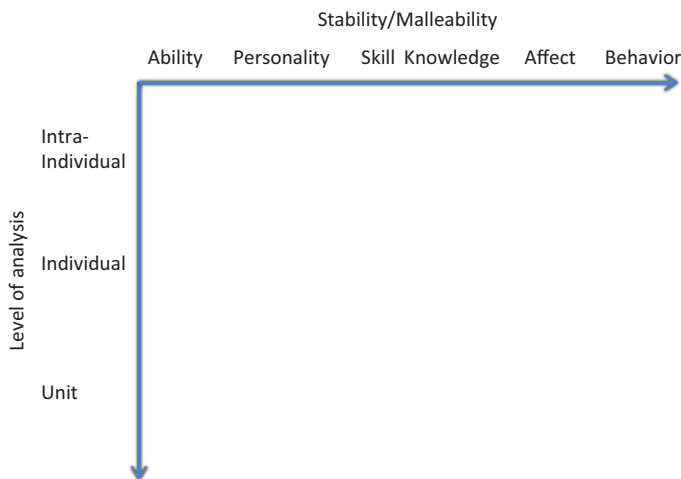
A Framework for Exploring SHC

In order to explore human capital and its value to firms, let us begin with the simple model displayed in Figure 1. At the center is the human capital construct, about which much discussion is to come. Prior to that are “antecedents,” or those things that determine or build human capital. In the human capital literature, these have often been referred to as investments in human capital as they are activities that require a cost in terms of time or money in order to build human capital. At the individual level, these antecedents include education and professional experience. At the firm level, HRM practices, such as training and development, are aimed at increasing employee’s individual human capital, with the view to affecting the aggregate firm-level human capital resource (Barney & Wright, 1998): In this way, Becker (1964) referred to education and training as “investments” in human capital. In addition, there exists a range of organizational processes that impact and shape the nature of this firm-level aggregate human capital resource (Ployhart & Moliterno, 2011). Finally, one recognizes the consequences of human capital: Some outcomes, such as performance, may have analogs across levels of analysis, while others (e.g., earnings) may be specific to a particular organizational level. These outcomes could be described as the “benefits” of human capital that accrue to an individual or a firm. These concepts shall become more relevant once we have discussed the human capital construct itself.

Human Capital: What Is It?

The first question seems unnecessary in a special issue on SHC. However, the papers submitted and those published reveal considerable disagreement regarding the definition of *human capital*. As we conceptualize the treatments of human capital, we propose two important dimensions for conceptualizing and categorizing human capital. The first concerns the level of analysis, and the second concerns the “malleability” of individual human characteristics. Figure 2 illustrates these dimensions. These two dimensions help to explore two important issues that emerge regarding human capital. In addition, while separate from these

Figure 2
Dimensions of Human Capital Characteristics



dimensions, a third issue, firm specificity of human capital, also presents challenges for researchers that deserve discussion.

Issue 1: How can human capital be characterized at different levels of analysis? A first dimension necessary to explore human capital—and perhaps the most salient dimension given the special issue’s intention of bringing together HRM and strategy researchers—deals with the level of analysis. Much of the literature in the SHC domain has distinguished between individuals and units (groups or organizations). However, clarifying the nature of human capital requires a deeper analysis.

At the most micro level, *intra-individual* refers to specific individual-level human capital characteristics. For instance, researchers have distinguished between firm-specific and general knowledge. Firm-specific knowledge has a unique set of determinants as to whether or not individuals will choose to invest in it relative to their choice to invest in general knowledge. Or consider the concept of “abilities,” which comprises multiple individual-level traits (e.g., cognitive ability, physical strength, speed, etc.). We will say more about these individual-level capabilities shortly, since we are particularly interested in the malleability of these characteristics.

The next level treats the individuals as human capital per se. Here the focus shifts from the “capital” inherent in an individual’s characteristics to how those characteristics can become “capital” to be leveraged by the organization. Thus, whereas at the first level we might consider an individual’s investment in education as a way to expand his or her “human capital,” at the second level we might consider an individual with more education to have more value as “human capital” than an individual with less education. Thus we might understand a firm’s

implementation of a tuition remission program as an organizational investment in the firm's human capital. In this way, our focus at this level is on any individual's particular "portfolio" of human capital. This portfolio concept suggests that individuals possess a variety of types of human capital, making each individual uniquely valuable to the firm. An individual might have the highest level of one characteristic and be relatively low on other characteristics. Alternatively, an individual may be extremely effective because he or she has a moderate level of a number of human capital characteristics that uniquely position the individual to be the highest overall performer. In both cases, it is ultimately the ability to make meaningful individual-level contributions to organization-level outcomes that makes the human capital a valuable resource for the firm.

For instance, studies have looked at inventors, scientists, baseball players, and so on as being human capital. Similarly, a significant literature has developed around "stars," conceptualized as individuals who make extraordinary firm-level contributions. Defining stars by the number of patents they have produced implicitly assumes that a star has a unique combination, or portfolio, of human capital characteristics that has enabled that person to perform significantly better than his or her peers and in ways that are meaningful for organizational outcomes. In some cases, it may mean that they are the best at one characteristic, or it might also be that they are not the best at any one thing but good enough on all characteristics (or a particularly important subset) to be the best overall.

Finally, human capital can describe the aggregation of individuals within the firm. A recent review of the literature invoking a unit-level conceptualization of human capital demonstrates the prevalence of this macrolevel perspective (Nyberg, Moliterno, Hale, & Lepak, 2014). Wright, McMahan, and McWilliams (1994) first referred to the "human capital pool" as describing the aggregated skill base comprising the entire workforce. While their conceptualization was overly broad, more recently, Ployhart and Moliterno (2011: 127-128) offered a definition that specifically sought to bridge levels of analysis by defining human capital as a "unit-level resource that is created from the emergence of individuals' knowledge, skills, abilities and other characteristics (KSAOs)." Thus, organizations possess a pool of human capital made up of the individuals with unique KSAO endowments within the firm. However, the unit-level human capital resource described by Ployhart and Moliterno is not simply an additive amalgamation of individuals, inasmuch as it is shaped and impacted by the organizational processes through which it is created.

The papers published in this special issue illustrate some of the ways in which current scholars are grappling with the question of level of analysis in SHC research. Ployhart, Nyberg, Reilly, and Maltarich (2014) offer a comprehensive conceptual model that builds from individual-level differences to unit-/firm-level human capital resources. They begin with individual-level KSAOs and layer on individual human capital. Then they examine ways in which idiosyncratic human capital is combined at the unit level. Additional value is created through complementarities and emergence that is differentiated by the social process, as opposed to complementary knowledge and skills. This, in turn, can become strategic human capital where the unit-level resource is unique and inimitable.

While Ployhart and colleagues seek to advance our understanding of how levels of analysis come together and interrelate in the context of SHC theory, empirical work in this issue tackles the levels dimension by examining cross-level effects (i.e., how attributes of human capital at one level of the organization effects outcomes at another). In this way, Khanna,

Boivie, and Jones (2014) consider the human capital of individuals on the boards of directors for Fortune 500 firms and examine how this individual-level human capital relates to firm-level performance. This focus on the effect of the individual on the organization manifests in two other papers in this issue. Tzabbar and Kehoe (2014) explore how the departure of a "star" employee causes the firm to engage in more or less exploration and exploitation, and K. Liu (2014) illustrates that attributes of the inventor is associated with whether or not a firm renews the patent that comes from his or her work. These latter two papers highlight what seems to us to be an important emergent theme in the domain of SHC research; namely, what is the effect of the individual on the firm? Indeed, from the perspective of many strategy researchers, what makes SHC "strategic" is its effect on organization-level outcomes. Crocker and Eckardt (2014) consider this cross-level association from the other direction and look at the effect of unit-level human capital on the association between individual-level human capital and individual performance. In a study that draws on data from Major League Baseball, the authors demonstrate that attributes of the collective-level team and managerial staff have a significant impact on the association between a pitcher's human capital and his performance.

It is important to note that all of these levels or units of analysis can be considered valid approaches to thinking about or measuring human capital. However, each level may have different antecedents and different consequences, thus making it difficult to compare across studies that take different approaches to conceptualizing or measuring human capital. Yet in all cases, the elementary units of analyses are the characteristics of the individual: Ultimately, conceptualization of human capital at all levels of analysis can be reduced to these fundamental individual-level "building blocks."

Issue 2: What characteristics of people can be considered human capital? Given the centrality of individual characteristics in any conceptualization of human capital, we now turn our attention to the second human capital dimension characterized in Figure 2, namely, the relatively malleability of individual characteristics. At one end, this dimension is anchored on stable (difficult-to-change) characteristics (e.g., intelligence, personality, physical attributes), while at the other end are malleable (easier-to-change) characteristics, such as affect or behavior. Between these two extremes are characteristics, such as skills and knowledge, that are changeable but remain relatively stable once acquired. At this point, we do not argue that all constitute human capital but simply want to recognize that these are characteristics of people examined in past organizational research that some may want to be included under the umbrella of the SHC construct. Indeed, as we will suggest later, which of these should be considered valid components of human capital is a ripe area for future debate.

Becker (2002: 1) defined human capital as "the knowledge, information, ideas, skills, and health of individuals." However, even Becker's conceptualization seemed at times ambiguous. For instance, he states, "The concept of human capital also covers accumulated work and other habits, even including harmful addictions such as smoking and drug use" (Becker, 1996: 9-10). Habits consist of a repeated set of behaviors, thus beginning to stretch the concept into the behavioral realm. (However, in defense of Becker, when he mentions more behavioral components, such as accumulated drinking, he usually does so with regard to behaviors that negatively impact an individual's abilities, skills, or health.)

Little disagreement exists regarding the core characteristics that individual human capital comprises. Reviewers and authors recognize knowledge, education, experience, and skills as relevant dimensions of an individual's human capital. However, questions remain regarding other aspects of human beings that could be considered valuable to companies. For instance, personality characteristics, such as conscientiousness or high need for achievement, comprise motivational traits: relatively stable behavioral patterns of individuals to work hard and reliably. Certainly firms would prefer to have employees whose pattern is to work hard over those who seemingly do the minimum amount of work necessary. Thus, motivational traits describe characteristics valuable to the firm: Can they be considered human capital and/or the individual-level employee attributes from which firm-level human capital can emerge (Ployhart & Moliterno, 2011)? While these are stable characteristics, what about less stable ones, such as affective states? For instance, firms consistently seek to build "employee engagement" (i.e., organizational commitment) under the belief that such affective states lead to greater discretionary behavior and turnover. Given that employee engagement should result in valuable outcomes to the firm, should its determinants be considered characteristics of individual-level human capital? While academic research does not seem to have reached consensus on this question, we note that firms such as IBM have considered their services in employee engagement as part of their "human capital practice."

It seems to us at this stage in the evolution of the field of SHC that where one draws the line in defining characteristics that can be considered components of individual-level human capital matters less than having researchers clearly articulate the characteristics they assess as human capital and provide conceptual justification for why those characteristics should be considered human capital. As we will see, human capital characteristics' strategic value may sometimes be contingent upon other constructs, such as social capital, and thus it may be premature to attempt to suggest that only certain characteristics should be included in the construct. Through further research and theorizing within the field of SHC, we would expect to see the boundaries of that construct become clearer over time.

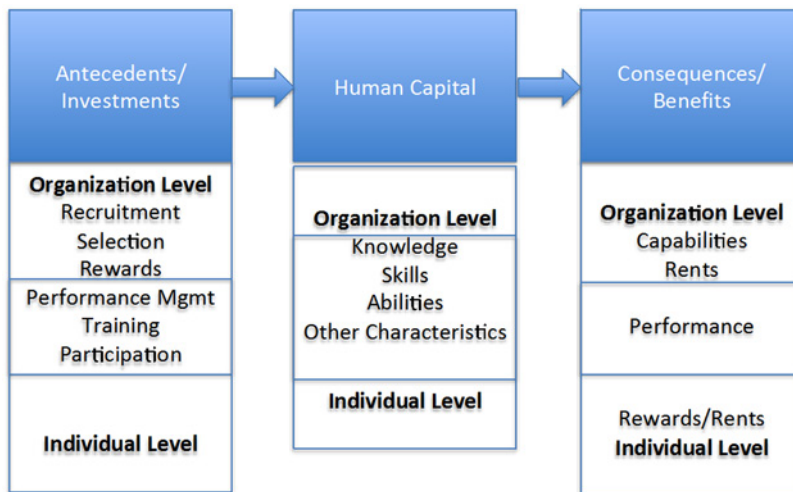
Antecedents/Investments in Human Capital?

We turn our attention now back to the antecedents of the human capital framework (Figure 1). As discussed previously, both individuals and firms make investments in human capital. While the economics literature has devoted considerable research efforts to exploring how individuals make choices regarding human capital investments, less is known about how firms do so.

Issue 3: What are investments in human capital and why do firms choose certain ones? One of Becker's (1964) main research concerns dealt with the question of why individuals choose to make certain investments in their human capital, such as finishing high school or getting a college degree. He wrote,

Human capital analysis starts with the assumption that individuals decide on their education, training, medical care, and other additions to knowledge and health by weighing the benefits and costs. Benefits include cultural and other non-monetary gains along with improvement in

Figure 3
Overlap and Divergence Across Levels in the Domain
of Strategic Human Capital Research



earnings and occupations, while costs depend mainly on the foregone value of the time spent on these investments. (Becker, 1964: 43)

At the individual level, significant research attention has focused on individuals' choices regarding their own human capital investments.

On the other hand, much of the strategic HRM literature has focused on how firms' investments in human capital through HR practices (or high-performance work systems) can positively impact performance. This literature consistently demonstrates an empirical relationship between the extent to which organizations use these practices and firm-level performance (Combs, Liu, Hall, & Ketchen, 2006), but seldom has the research actually measured the human capital that was allegedly created by the HR practices. In essence, HR researchers have measured the investment in human capital as a proxy for the actual human capital itself. Typical studies have assessed HR practices and performance and have shown the link between the two while assuming that human capital at least partially mediates this link.

Analyzing investments from these two perspectives reveals major differences between individuals and organizations with regard to their investments. Once in a firm, employees largely choose to invest their time to develop their human capital.¹ In fact, individuals to some extent may passively engage in these investments (e.g., being sent to training programs, being assigned to on-the-job training, receiving performance feedback, etc.). Firms, on the other hand, must invest both time and money into the practices that seek to develop the human capital resource of the firm. They spend employee time (and their associated wages) in the design and development of HRM practices, in training managers and employees on how to implement those practices, and then in the actual delivery of those practices in the organization. This is illustrated in Figure 3.

Additionally, performance management, training and development, and participation practices incur costs in time and/or money for both firms and employees. Without the firm developing and implementing the practices and without employees choosing to actively engage and learn from those practices, no additional human capital is developed. On the other hand, firms have to invest in some practices that do not change the human capital of the individuals to whom the practices are employed but that simply seek to increase the overall human capital of the firm. For example, potential employees are already endowed with an existing portfolio of human capital during the recruiting and selection process, and if hired, their human capital portfolio has not changed. However, the company must incur costs in identifying which potential employees possess the necessary human capital and possibly to what extent.

This highlights the need to distinguish between how individuals approach the development of their human capital and how firms seek to develop the organization's human capital. Two papers in this special issue sought to address the latter question of firm-level investments in human capital. First, X. Liu, van Jaarsveld, Batt, and Frost (2014) explore how an establishment's capital structure impacts investments in human capital. These authors show a link between share turnover, shareholder concentration, and financial leverage and the extent to which firms have implemented HR practices aimed at developing their human capital. In essence, the argument suggests that firms that seem to be focused on short-term returns or are constrained financially are less likely to invest in the kinds of practices that could build a firm's human capital pool. Second, Brymer, Molloy, and Gilbert (2014) explore how firms seek to leverage staffing efforts to create competitive advantage through human capital. They suggest that firms can establish interorganizational relationships to provide access to a "pipeline" of talent. They suggest that focused pipeline hiring enables firms to cope with labor market challenges, such as applicant scarcity, two-sided matching, the lemon problem, and poor hires.

Interestingly, although we really hoped not to see the special issue inundated with HR practices and performance papers, we did hope to see deeper explorations of HR practices as the antecedents to strategic human capital. In fact, HR practices could be an additional bridge to connect strategy and HR research if that HR research does not come from the traditional "universalist" perspective (i.e., there are best practices that should be used under all circumstances.) Wright and Sherman (1999) suggested that focusing on the desired outcome of the practices might be the best way to see the link between HR practices and strategy. For instance, two firms with very different strategies (e.g., operational excellence and customer intimacy) might both have pay-for-performance systems, but the former might define performance against an efficiency criterion while the latter might assess performance against a customer criterion. Brymer et al. (2014) make progress in this regard by arguing the pipeline hiring may offer differential firm-level advantages as a function of the organization's activity system orientation.

In addition, the "black box" problem within the strategic human resource management literature points to human capital as one, not the main, construct mediating the relationship between HR practices and performance. Kaplan and Norton (2004) provide a "human capital readiness" analysis that uses the value chain to identify key employee groups, their critical skills, and then the development of a set of management practices to ensure that enough people with the right skills will be attracted and retained within the firm. Again, this illustrates the critical link between HR and strategy researchers in addressing the challenges of

managing human capital strategically. While many strategy researchers may initially want to avoid exploring HR practices, given that strategy researchers seek to explore how managerial actions can create competitive advantages, it seems that the focus on managerial (i.e., HR) practices could prove to be a fruitful avenue and one that would promote integration across the literatures.

Consequences/Benefits of Human Capital

Certainly, the focus of virtually all strategic human capital research has been on the benefits of human capital. However, the explorations of the benefits of human capital lead to an additional set of issues, and clearly, this area comprises the most frequent debates.

Issue 4: What is “strategic” human capital? If agreement can be reached regarding the basic construct of human capital, then the next question researchers must address is, “What makes some human capital strategic and some not strategic?”

One easy answer might be that the “strategic” nature of human capital is tied to its value to the firm. However, note that value alone cannot be the single determinant of what constitutes SHC. The core ideas of labor economics assume the value of human capital to the firm, such that the exchange between employee and employer results in at least some rents accruing to the firm. Thus, in theory, all employees have valuable human capital, but does that make their human capital strategic?

In essence, the distinction between human capital and SHC resembles the evolution of the concept of resources within the resource-based view of the firm. Early in its development, resources comprised “all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc., controlled by a firm” (Barney, 1991: 101). However, later, researchers noted that the value of resources could be evaluated only in the context of the resource’s relationship with the market (Peteraf & Barney, 2003). Similarly, it seems that “strategic” human capital can be considered strategic only to the extent that it provides value to the firm and does so in a unique way. From a measurement standpoint, this leads to two approaches to assessing *strategic*.

First, human capital could be arranged on a continuum based on the amount of value it brings to the firm. Under such a scenario, the strategic nature is defined as the human capital that has the greatest, or greatest potential, value to the firm. Such a conceptualization makes sense theoretically but might create difficulty empirically. For instance, such an approach requires that the value of human capital be known *ex ante* in order to study only that which provides the greatest value.

Second, one could conceptualize the strategic nature of human capital via its importance in enabling critical firm capabilities. Consequently, a human capital characteristic such as creativity can be strategic in a firm seeking innovation but may be less strategic in a firm seeking low cost. Such an approach implicitly assumes some overlap between “importance” and “value” but without the messy need to measure value. Instead, it provides the opportunity for subject matter experts (executives) to assess the importance of certain types of human capital to their firm’s capabilities.

This has marked an important characteristic in the divide between HR and strategy researchers. HR scholars have tended to focus on performance at multiple levels within the

organization (individual, team, and firm). However, they have been less likely to use rival firms' performance as a reference point or explore how long a given advantage may be sustained over time. As such, further inquiry that focuses on competitive advantage as opposed to performance would be fruitful in opening a richer dialogue with the strategy literature.

Issue 5: What is the role of firm specificity in value creation? Certainly, the strategy research on human capital has emphasized firm specificity as a determinant of the strategic nature of human capital (Coff, 1997; Hatch & Dyer, 2004; Mayer, Somaya, & Williamson, 2012). This perspective assumes that because firm-specific skills should not be tradable in the factor market, the firm is more likely to appropriate value from these skills. However, both the firm and employees would enjoy bargaining power (bilateral monopoly)—the limited external market for the skills means that the firm and workers face significant costs associated with their next-best alternatives.

Accordingly, the potential holdup hazard if the firm fails to compensate employees for investments in firm-specific human capital has been emphasized as a critical problem in generating a competitive advantage from human capital (Wang & Barney, 2006; Wang, He, & Mahoney, 2009). While some recent work has argued that firm specificity may be overemphasized, it remains a strong theme in the literature (Campbell, Coff, & Kryscynski, 2012).

While true at the individual level, one must recognize that at the unit level, all human capital may be firm specific in some respect. First, because each individual possesses a unique portfolio of human capital, the uniqueness of the unit-level human capital portfolio increases with each new member. This is similar to Lazear's (2009) approach to analyzing workers who have skill bundles that are sufficiently idiosyncratic that the market for a given bundle is effectively firm specific even if each individual skill is general in nature.

Second, as Ployhart et al. (2014) describe, value at the unit level is increased when we account for complementarities among skills. Such complementarities are likely to be firm specific in nature as they reflect the idiosyncratic mix of individuals. If one person's particular skill set (e.g., methodology and statistics) complements unique skill sets of other members (e.g., theorizing, writing, etc.), then the combined value created at the unit level will exceed the sum of each person's skills.

Finally, emergence increases the firm specificity beyond that of complementarities (Ployhart et al., 2014). The emergence process entails social, affective, behavioral processes that enable the unit-level performance to increase in a synergistic way (Ployhart & Moliterno, 2011). Inasmuch as there exists variation in the process by which each organization creates and shapes its human capital pool, the unit-level human capital resource is firm specific by definition (Ployhart & Moliterno, 2011). As individuals develop working relationships and tacit knowledge regarding one another's work habits, styles, preferences, and so on, they are able to function more efficiently and effectively as a unit. Thus, the value of the complementary skills is accentuated by the cohesiveness of the unit. Of course, it is possible, and even likely, that competing firms may each create unit-level value over and above the individuals' contributions. In this way, unit-level value creation may not secure a competitive advantage if rivals have strategic substitutes. This may be the case even if unit-level capabilities are firm specific for each rival. This underscores the need identified in the previous section to focus on competitive advantage as opposed to performance.

A number of authors in the special issue explored issues of complementarity. Crocker and Eckardt (2014) demonstrate that complementary unit-level human capital affects the performance of individuals. Their results are particularly well aligned with the proposition that an individual's skills—even if they are “generic”—can effectively be leveraged by a complementary firm-specific unit-level human capital resource. On a macro level, Mackey, Molloy, and Morris (2014) introduce and illustrate an economic matching model to suggest that there exists an omitted variable in prior human capital research, namely, the potential complementarities that exist between managerial human capital and the firm's existing resource base. Campbell, Saxton, and Banerjee (2014) draw on data from the National Basketball Association to illustrate how the negative effects of mobility (i.e., players changing teams) on individual-level performance are moderated when players move as a group and that group mobility events negatively impact the performance of incumbents at the group's new team. Drawing on social capital theory, this paper makes the observation that a component of an individual's human capital may be colleague specific and, as such, shines a light on the intriguing idea of inter-individual human capital complementarities.

In fact, the intersection of human and social capital seems to us to be a particularly relevant and important domain in current SHC research. If we understand social capital as “inhering in the relations between person and among persons” (Nahapiet & Ghoshal, 1998), it is perhaps easy to see a parallel with SHC arguments surrounding complementarities, as illustrated by Campbell et al. (2014). In this way, whereas earlier authors have urged a more explicit integration of social capital theory (Nahapiet, 2011; Nyberg et al., 2014), the work published in this special issue demonstrates that scholars are currently taking a more socialized view of human capital.

Tzabbar and Kehoe (2014) explicitly draw upon network theoretic concepts of centrality to demonstrate that “stars” who are more central in their networks cause more disruption when they leave (in terms of collaboration and involvement in innovative efforts). While Tzabbar and Kehoe consider stars in their social context, Grigoriou and Rothaermel (2014) specifically introduce the term *relational stars* to characterize the importance of embedded relationships by individuals in effectively performing knowledge-generating activities. They identify two types of relational stars. Integrators are those who have an extraordinarily large and dense network of intrafirm collaborators. Connectors, on the other hand, excel at collaborating with previously unconnected actors and recombine knowledge from distant clusters. They find that such relational stars enable those around them to be more effective and, because their value is firm specific, can be a source of competitive advantage. Finally, K. Liu (2014) examines how social collaboration works in conjunction with human capital to create value for the firm. He suggests that patents developed by stars and by stars with multiple collaborators are more likely to be renewed. He finds that having star inventors on the inventor team, having more co-inventors, and having inventors from multiple locations increase the chances of patent renewal.

Again, this emphasis on social relationships and their impact on human capital provide a platform for integrating HR and strategy research. Many of the social processes exemplify those historically examined by micro organizational behavior and HR researchers. However, this research has not necessarily explored the concepts of “value” or “competitive advantage” grounded in a more economic perspective. The synthesis of group composition and process research with economics could provide innovative and creative theory going forward.

Issue 6: How is the value generated by strategic human capital appropriated? Implicit in our discussion of firm specificity is the question of who reaps the gains of the value that is created. Again, since the market for firm-specific human capital is limited, it is more likely that the firm may be able to capture some of that value.

This is part of a broader discussion of appropriability (Coff, 1999). The fact that human capital cannot be owned by the firm makes this issue especially salient. In the case of most other resources, the strategic problem is how to acquire the resource for less than it is ultimately worth (Adegbesan, 2009; Barney, 1986). In the case of human capital, there is always the possibility of ex post negotiation once it is clear that the skills are essential (Peteraf, 1993).

Recent discussion has gone beyond firm specificity in a number of ways (Campbell et al., 2012). For example, by recognizing that individuals may be motivated by many things other than wages, one can more easily imagine how employees may not capture all of the financial value created by their skills.

The aggregation arguments offered above (and later in this volume) also have implications for appropriability. If complementarities or emergence creates additional value at the unit level, on the face of it, one might assume that the firm would capture this value. However, it might be inappropriate to assume that all such gains must flow to shareholders, who often have very limited abilities to bargain and monitor (Coff, 1999). Indeed, it may be unclear who will be in a position to appropriate unit-level value even if, as discussed earlier, this is firm specific. First, such value may be appropriated by managers who are often in strong positions to appropriate value based on their access to information and key decision-making roles.

Second, such value may be dissipated to workers through strategic factor market processes. This can be illustrated by considering theoretical propositions found in the literature on mergers-and-acquisitions (M&A) markets, which have been used as exemplars of markets for capabilities. In this context, each bidder typically has complementarities with the target's assets and capabilities, and the price is often bid up to include these synergies. In this way, it is common for target firms to capture much of the synergy value that a buyer may have because rival bidders also have synergies and these get baked into the purchase price. In the end, a buyer may make money on a deal only to the extent it can create more value than the next-highest bidder. All other synergies are effectively captured by the target even though the buyer's complementary assets are required to create the value (Barney, 1988).

Applying this argument to factor markets for human capital, multiple firms may create unit-level value, but this value may depend on scarce individual-level human capital. If so, individuals may still be in a position to appropriate much of the value that arises due to complementarities at the unit level. Thus, top engineers or scientists may be scarce, and competing firms may bid up wages such that they include some of the gains that each firm may realize from complementarities at the unit level. This suggests that workers may be able to capture value up to their next-best alternative, which may incorporate some unit-level complementarities in rival firms in order to attract valuable scarce human capital.

While this logic follows from strategic factor market theory and the M&A context, there has been relatively little exploration of this dynamic in labor markets. Mackey et al. (2014) make interesting progress on these issues in their examination of executive compensation. Taking a labor economics perspective on human capital, the authors move past the question of firm specificity to consider the relative scarcity of human capital. They find that

complementarities between scarce human capital (i.e., highly skilled CEOs possessing attributes that firms desire) and resource-rich firms result in “positive assortative matching” such that the scarce human capital flows to the resource-rich firms. The complementarities that accrue through such matching results in value creation, some of which is appropriated by the CEO as higher pay.

Even if the workers in the unit do not appropriate the value, it is unclear whether such value will accrue to shareholders. Managers tend to have better information about value creation and may use that to appropriate value. For example, asymmetric information may create opportunities to profit through insider trading (Ahuja, Coff, & Lee, 2005). In addition, in the context of causal ambiguity, managers may claim responsibility for the performance and argue that they are entitled to be compensated for generating the gains (Blyler & Coff, 2003). This may be one reason we see very high executive compensation (Combs & Skill, 2003; Finkelstein & Hambrick, 1989).

Conclusion

In summary, we hoped the special issue on SHC would spark research around relatively unexplored questions and promote a dialogue across HRM and strategy researchers. We found that the dialogue ensued, and that dialogue pointed to a number of unresolved issues within this literature. We do not purport to have solved those issues here, only to have raised them in ways that should promote future theorizing and empirical examinations.

At the beginning of this article, we discussed the story of the blind men and the elephant. While some extrapolate from this story that all truth is relative to the perceiver, we think this misrepresents the true meaning that may be important for examining SHC. First, there is an elephant that is real, breathing, and powerful. Similarly, SHC can be a real and potent construct for exploring behavior in organizations. Second, if all the blind men were to communicate with one another about the part they describe, their pooled descriptions would closely resemble the elephant. Similarly, if strategy and HR researchers can better share their perceptions, we may gain deeper understanding of this powerful construct. If that happens, then this issue will have done its job of helping scholars to cross the great divide.

Note

1. This does not preclude employees for paying for outside training, but recognizes that whether through internal training or tuition reimbursements, most, if not all, of the monetary investment comes from the firm.

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