

Organizational Learning and Human Capital: Similarities and Tensions

Abstract

We apply a formal model to understand the effects of the relative learning rates of embedded agents and the institutional field on organizational outcomes.

Keywords:

Embedded Agency

Title: Sub-title

Today's organizations increasingly rely on intangible assets such as human capital to gain a competitive advantage (e.g., Barney, 1991) some of the linkages between micro and macro areas are already occurring, for example in the domain of human capital and strategy (e.g. Coff & Kryscynski, 2011; Ployhart & Moliterno, 2011). The idea of 'microfoundations' can be traced to historical tensions between micro and macro disciplines in the social sciences. The central tension has been whether explanations of individual and collective or societal outcomes should focus on the individual or societal and cultural level (Udehn, 2001). Similar intuition has been echoed and further reinforced in some of the most highly cited and seminal work in strategic management over the past two decades, specifically arguing that individual-level considerations simply are not relevant for strategy and firm-level outcomes (see Henderson & Cockburn, 1994; Kogut & Zander, 1992, 1996; Nahapiet & Ghoshal, 1998; Spender, 1996). This literature places an emphasis on macro factors such as firm-level knowledge and competencies, social capital, networks, and other collective constructs. Henderson and Cockburn (1994) assume in their highly cited empirical analysis of organizational competencies that individuals are homogeneous, and thus they ascribe performance variance to collective-level routines and practices. The microfoundations literature and movement, then, can be seen as a reaction to an over-emphasis on collective factors, as well as the seeming disregard for individual-level and social interactional considerations in explaining organizational outcomes.

To provide another specific example, foundational and highly cited macro concepts such as firm-level 'absorptive capacity' (Cohen & Levinthal, 1990) can be directly traced to equivalent, individual-level concepts in psychology. Specifically, the oldest citations in Cohen and Levinthal's influential article are to behavioral psychology and learning theory related to individual knowledge acquisition based on experience, stimulus, and repetition (e.g. Bower & Hilgard, 1981; Ellis, 1965; Estes, 1970; Harlow, 1949). These individual-level concepts were applied directly to the firm and coined as 'absorptive capacity'. While the concept of absorptive capacity, of course, is important, the paper itself did not explicitly theorize how the concept might need to change and evolve when applied to the organization as a unitary actor (though, subsequent efforts have been made in this direction). Other examples of the one-to-one application of concepts from micro to macro include cognition and learning by association and analogy (e.g. Gavetti, 2012; Gavetti, Levinthal, & Rivkin, 2005).

From an organizational learning perspective, recipient firms are likely to be concerned with two issues related to ability to learn: first, whether they can effectively understand and apply the spilled over knowledge; and second, the additional complementary opportunities for learning from the originator. If the knowledge is in one of the areas of specialization of the recipient firm, the recipient's absorptive capacity (Cohen & Levinthal, 1990) for the spilled over knowledge as well as for complementary knowledge is likely to be high. The absorptive capacity of the firm for external technological knowledge is dependent to a significant extent on the degree of its knowledge in a particular technological field (Schoenmakers and Duysters, 2006). Further, the development and accumulation of tacit knowledge (Polanyi, 1966) related to the technology is also dependent on specialization (Enright, 1991). Thus a recipient with greater specialization will possess well-developed internal mechanisms for understanding and exploiting spillover knowledge. their macro approach, and assumptions about the homogeneity of human capital, by arguing that stars cannot be a source of sustainable advantage as they appropriate their marginal rents. In other words, the

reason that some have focused directly on collective capability is that information about the capability of particular individuals (if markets are relatively efficient), such as stars, is likely to be widely available and thus these individuals are perhaps able to appropriate any rents associated with their abilities. Our theory also links work in the knowledge-based view (e.g., Grant (1996); Kogut & Zander (1992) with work on strategic human capital (e.g., Campbell, Coff, and Kryscynski, 2012; Coff, 1997). The literature has long held that routines are "repositories and carriers of knowledge" (Hodgson, 2008: 25). We show that organizational memory is a natural outcome of the process through which routines emerge, and knowledge is thus not only in the minds of (and embodied in the habits of) individuals, but also in the connections between individuals. Consider employee turnover. We find that the exit of one individual does not undermine the performance of the routine. Even if the departing individual does not explicitly transfer his or her knowledge to the replacement person, the routinized behavior of the remaining individuals will lead him or her to select a task approach that resembles his or her predecessor. Thus, the knowledge embodied in the connections between individuals has the properties of tacit knowledge. Once formed, such knowledge is not subject to expropriation by individuals – it is inherently the property of the organization.

Coff and Kryscynski (2011) explored human capital-based competitive advantage and, while their focus was clearly within the firm, they did note that when causal ambiguity is derived from tacit knowledge it creates problems of imitation for both people within the firm and for competitors. Characteristics, Base discipline, level of analysis, key assumptions

Organizational Learning
Human Capital

THEORY

On the topic of the general hypotheses

Figure ?? lays out the average score charts for four agent-field combinations while enforcing the field to start in Right of Center (this is the same as saying $p_{0,F}^0 = 0.75$).

Leading into H1a We do so since the scale is symmetric across the Center (C), any initial mapping

Hypothesis 1a: When the institutional field is open to influence, slow learning adversarial agents will raise overall performance higher than slow learning agents with a neutral orientation

Leading into H2a This trend is confirmed further in Figure ?? where the learning rates of agents are increased even further to 'Fast'.

Hypothesis 2a: For the same initial outcome preferences, the overall performance score varies curvilinearly with difference in the rates of learning of the agent and the institutional field

LIMITATIONS AND FUTURE WORK

CONCLUSION

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