

1 Organizational capital

Concept, measure, or heuristic?

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Human and social capital

Management and organization theorists' interest in "organizational capital," as something distinct from the organization's financial and physical capital, goes back at least to the time of Adam Smith and his political-economy colleagues. In spite of their obvious academic interests they were practical men and closely observed the workings of the world around them. Unlike many of our economist colleagues, they had no problem seeing the economic impact of people's knowledge and skills. They also recognized the very real costs of acquiring them and so were interested in an economics of human knowledge.

In this line of reasoning Smith concluded there were four types of capital: machines, buildings, land, and people's "acquired and useful abilities." He believed an effective division of labor would significantly facilitate the development of such value-adding skills, and experienced people should be recognized as economic assets. Indeed, human assets were to be understood as the post-mercantilist basis of the nation's wealth (Ekelund and Tollison, 1980). But post-Smith and post-slavery there was considerable sensitivity to defining people as transferable goods and a corresponding reluctance to use terms like "human capital" – until Marshall's and Pigou's reminders that what working people know must surely be made central to any workable theory of economics (Marshall, 1964; Pigou, 1928). Their comments tempted a new generation of macro-economic and management theorists to probe the rising importance of intangible or "soft" assets (Kendrick, 1956; Schultz, 1961; Tobin, 1969). Thus today's view, that an organization's total capital comprises both tangible and intangible elements, has been around for a while (e.g. Gort *et al.*, 1985; Prescott and Visscher, 1980); especially since "human capital theory" was opened up by macro-economists such as Johnson, Schultz, Kendrick, Solow, Becker, and others (Becker, 1964; Johnson, 1960; Solow, 1956).

Human capital theorizing was mostly at the macro level, estimating the national returns to using new technology (Solow, 1957) or to expenditures on education, estimating those investments and returns at an aggregated level. This revealed, for example, that "the income of the US has been increasing at a much higher rate than the combined amount of land, man-hours worked and the stock of reproducible capital used to produce the income" (Schultz, 1961: 6). Schultz pointed to the

“discrepancy” between what can be observed, in terms of GDP growth, and what could be “explained” by conventional economic theory. That this discrepancy was labeled “human capital,” in spite of Becker’s misgivings, does not help us much unless we can get further into and theorize its workings. But it is clearly important economically and, for that reason, theoretically, politically, and managerially. Many economists tried to estimate the nation’s stock of intangibles and its economic contribution. In 1969, for example, Kendrick argued around 50% of the entire US capital stock was of this “immaterial” nature (Mankiw *et al.*, 1992: 415). We can surmise the proportion is even greater now we are in the Information Age (Castells, 1996; Drucker, 1988) and have a service-dominated economy. For the US corporations, the Brookings Institute estimated that the soft assets of the *Fortune 500* companies represented 38% of their market value in 1982, but had risen to 62% by 1992 (Dzinkowski, 2000: 32). Again, we can presume this proportion has continued to rise along with the financial services and “knowledge-intensive” high-tech industries. But estimating the scale of these assets does little to reveal the mechanisms that connect investments in education and so forth to the human capital generated or the national economic outcomes. In fact there is surprisingly little empirical evidence about whether such common-sense links actually exist (Hotchkiss, 1993).

As an alternative to working at the macro level, trying to size the economy’s aggregated human capital and compare it against other more tangible types of capital, is to try and identify human capital’s components, coming up with subtypes, and thence move towards a more comprehensive theory. For instance, it is clearly helpful to distinguish background educational investments, not related to any specific value-generating activities, from firm-specific activities – such as training in making and marketing products like Oracle Data-base 11g or the Xerox Nuerva 288 Digital Perfecting System; or in learning how specific organizations, say TIAA-CREF, might make profitable use of these afore-mentioned products (Becker, 1964). Background or infrastructural investments may well make for a more civil society, but economists recognize business managers operate with specifics rather than academic generalities, and are reluctant to expend time and money training employees into forms of human capital when the resulting skills, such as C++ programming, can “walk across the street” and be readily applied by their competition (Kessler and Lulfesmann, 2002).

Work itself is often educational, as individual employees undertake new initiatives to make their practice easier or in some other way more effective. Indeed, this job-related learning so intrigued Adam Smith that he made it the core of *The Wealth of Nations*, famously illustrated in his pin-making example. A modern instance would be “quality circles” or any of the other institutionalized “learning-by-doing” practices (Arrow, 1962; Bahk and Gort, 1993; Yelle, 1979). In addition to this discovery of new knowledge wealth by “drilling down” into a specific practice, beneficial results in one area also spill over to colleagues. Employees are constantly educating each other and increasing each other’s human capital in ways that make it difficult to distinguish the consumption and generation of knowledge, or indeed to know whether the processes are individual or collaborative. There is

the SECI (socialization, externalization, combination, internalization) model, in which individual or small group discoveries of novel methods are shared with the rest of the organization (Nonaka and Takeuchi, 1995), though this may be little more than a restatement of Coleman's macro-micro model of the social process (Coleman, 1990). Aside from raising difficult questions about soft capital's source, location and who might actually own it, this approach also implies three levels of analysis – socio-economy wide, the “meso-level” of the firm or institution (Field, 2003: 139), and the individual employees – so adopting hierarchical categories familiar from the work of Parsons and Gurvitch (Gurvitch, 1972; Parsons, 1960). Both tangible and intangible capital may be present at all levels and, if so, we sense important questions about the relationships between the levels.

Other researchers move in different directions, contrasting different types of “soft” capital at each level. At the meso-level of firms and institutions, in addition to employees, equipment and financial capital, organizations have structure, rules and accounting arrangements to help everyone understand what they are being asked to do, and to measure and help integrate their work with others. These can be considered non-human components of the organization's “structural capital” – part of the bundle of resources developed to help the firm integrate its factors of production and division of labor, and ensure the employees' skilled activities are well aligned to its objectives (Grant, 2003). While much of this structural capital could be taken to be tangible – written rules, performance metrics, and so forth – we realize much is informal and cultural. Such relational assets seem to be “of the organization”; persisting beyond any particular employee's tenure, and standing apart from them and their skills, and so differentiable from the individualistic or personal dimensions of “human capital.” From this point of view, organizational capital might be defined as a sum of the organization's human and structural capital. Some have labeled this the organization's “intellectual capital” to distinguish it more clearly from the organization's tangible financial and physical capital (Edvinsson, 1997; Edvinsson and Malone, 1997). The organization is also embedded in a network of relations with suppliers, customers, regulators, competitors and so forth (e.g. Porter, 1980). Its place there is earned as the firm becomes a legitimate and functioning part of the industry's structure, so this place too is a dimension of its structural capital; engaging customers and suppliers, and reducing its external transaction costs.

Complementing the economists' interest in human capital formation, the intangible outcome of education, training or learning-by-doing, is the sociologists' interest in “social capital.” This is a way of measuring the strength or richness of a society's distributed intangible relational resources. Social capital is broadly defined as the system or network of relations between people, organizations and other social entities that facilitates their activity, both individual and coordinated. Social networks are evidence of social capital, infrastructural and institutional investments made intentionally or unintentionally (perhaps arising as spillovers from the intentional activity of individuals). Individuals and socioeconomic entities such as organizations and institutions are embedded in the social networks that result from previous interactions. Often costly to make happen, these generally

leave memory traces that ease and facilitate further interaction. Thus, to see an industry's structure is to see an aspect of the constituent firms' social capital.

Social capital theorizing has exploded over recent decades, adding new twists and questions to traditional sociological concerns (Baron *et al.*, 2000; Field, 2003; Halpern, 2005; Lin, 2001). To date, the theorizing has been largely shaped by the work of Putnam, Coleman and Bourdieu, who nevertheless had rather different ideas about what social capital was and how it worked to open up new possibilities and facilitate others. Putnam, following De Toqueville's interest in "association," argued at the macro level that the US's social capital is in decline – that is, we Americans are now "bowling alone" and making less investment in our social relationships, even though we know these are useful when we want to get things done or deal with the unexpected (Putnam, 2000). In socioeconomic terms, Putnam argued, the transactions costs of social life are increasing. In sociological terms, we have less access to and are less supported by our society, and are obliged to depend more on our own endeavors or on deliberately engineered social policies and government institutions, such as welfare.

Coleman focused at the meso-level, mostly on the effects of community culture on educational achievement. His model is more about where particular social capital is located, who can access it and how, and thus about the interaction between the social capital of particular communities and the life-chances of those within them. Bourdieu, from a Marxist perspective, focused even more narrowly on how particular forms of social capital were generated and harnessed to protect the privilege and interests of those who possess it – particularly on how elites help each other sustain their advantages; old boy networks and so forth (Field, 2003; Whitley *et al.*, 1981). Instead of probing for where we might find and maybe measure such soft capital, most of the debate among human capital theorists has been about whether there are empirically verifiable links between educational expenditure and economic growth at the macro level (Bils and Klenow, 2000; Hartog and van den Brink, 2007; Mankiw *et al.*, 1992). Social capital theorists, in contrast, have been more concerned with the family as social capital's principal mode of action and debating – for instance, whether supporting families can have results that are more beneficial to individuals than government funded programs (Becker *et al.*, 1990). In short, there has been more focus on the causes and effects of these two types of soft capital than on identifying or measuring their occurrence.

Theorizing along these lines has led to a proliferation of adjectives for "soft capital": intellectual, immaterial, relational, cultural, symbolic, innovation, environmental, customer, consumer, reputational, or social (Dean and Kretschmer, 2007). Some argue this has gone way too far, reducing the entire "soft" capital discussion to a mish-mash of conflicting definitions (Robison *et al.*, 2002). Paxton, for example, questions Putnam's conclusions and empirical findings (Paxton, 1999), while Fine thinks the explosion of talk about social capital has seriously damaged both sociological theorizing and social policy (Fine, 2000).

There are both theoretical and empirical difficulties. On the empirical side, the attempts to measure either human or social capital have probably added to the confusion. From the theory side, one difficulty is the idea that either human or

social capital can be conceived, measured or theorized independently of the other. Social capital is about individuals and their interactions, just as human capital presupposes those interactions, too. Consequently, it may be more productive to think about how the concepts are related in spite of major differences in method, assumption and orientation in the two literatures. The micro-economic foundations of human capital theory lead to its prioritizing the individual and her/his processes over those of the collective, especially evident in “rational choice theory” arguments that human capital would only be properly generated by individuals for their own benefit (Lucas, 1988). Social capital theory partially complements this view, arguing that social capital facilitates the development of and so shapes the individual’s human capital, especially influencing those who are disadvantaged and not in a good position to make the rational choices assumed by the human capital theorists – that is, social capital theory sees society as made up of individuals with heterogeneous resources and challenges. Thus human capital theory is inherently individualistic and politically conservative, while social capital theory is inherently collectivist and liberal, and the distinction between them may be more political than fundamental. Social capital theorists see the community’s social capital as a crucial form of collectively constructed infrastructure that helps raise the constituents’ quality of life, just as efficient utilities or legal institutions do. They also feel this infrastructure should not be left to chance or market forces, and that national or regional policies are implied, i.e. social capital is something to be managed. Relying on spillovers from individually directed activities is clearly not adequate. In contrast, human capital theorists adopt a more “methodologically individualistic” approach, and presume the world works better when investments are made individually, intentionally and rationally, with personal benefit in mind. Thus human capital is an essentially private good, while social capital is more of a public good. Alternatively we might say that human capital is what individuals bring to their lives and market choices, while social capital supports them when market failures occur.

Theorizing organizational capital

When theorizing organizational capital we might be able to draw on both sides of this discussion. Social capital theory can be applied by imagining the organization as a society writ small, with mutual trust and interdependence between its members. Social capital theory does not require the capital in question to be wholly intersubjective like language, distanced or held in some place other than by the organization’s members. While it clearly can be held in documents, rules and so forth, and be an aspect of the relations between the community’s members, it can also be held as the common knowledge they share (Grant, 2003; Middleton and Edwards, 1990; Sunder, 2002). These elements of the organization’s knowledge and skills are semi-public goods as far as that particular community is concerned, i.e. they operate as public goods within the meso-level context of a particular organization (Coleman, 1974). When such collective capital exists, much of the organization’s knowledge and experience will be available to other employees

without their engaging in any explicit or implicit contractual activity, i.e. members are able to access each other's knowledge without incurring the corresponding liabilities that would arise from market relationships (Bechky, 2003). Social capital implies some suspension of market forces, just as friendship is defined as "not keeping score" of the exchanges. In contrast with those who believe the market is the key to efficiency, many social capital writers assume collaboration provides for improved economic efficiency as transactions costs are lowered under circumstances of partial market failure. Thus one employee, facing a particular problem, is able to appeal to expert others within the organization (community), as custodians of the firm's accumulated expertise (Gray and Meister, 2004). We can also argue that when social capital is present, newcomers have to go through a period of training and socialization before they can access it, so becoming educated or institutionalized into the organization's social capital assets and processes (Karseras, 2006; Wanous, 1992).

But social and human capitals become increasingly entangled the more closely we look at them. Instead of assuming, as much of the literature does, they are different merely because they are defined by different languages and theories, we might more usefully wonder how they interact as they contribute to a middle-ground concept like "organizational capital." One of the risks with seeing the organization's capital through the prism of distributed social capital notions like "trust," "shared knowledge" or "networks" or, contrasted with this view, thinking of it as the sum of human capital components like the employees' "skills," is that organizations may differ significantly from both societies and individuals. If this is the case, then mapping intuitions from either social or human capital theory into the organizational realm might well prove problematic. While these theories can obviously furnish some insights, their relevance is contingent on the theorist's assumptions about the nature of the firm or organization. What counts as organizational capital, whether distributed and holistic or reductionist and atomic, must somehow fit into or with an appropriate theory of the organization.

We know organizations are often considered mini-societies and that much use can be made of sociologically based theorizing. But an organization may be much more than that (e.g. Morgan, 1997). *Inter alia* it may be a contrived quasi-mechanical device for achieving specific objectives, and this is not an entirely satisfactory metaphor for a society which, we presume, has organic qualities. Alternatively an organization may be considered a special market for human capital such as managerial capabilities (Williamson, 1970). Or it may be a political system (March and Olsen, 1989). Of particular relevance to theorizing organizational capital is the view of the firm as a device for converting some kinds of capital (such as the factors of production, including human and social capital) into other kinds of capital (finished goods, services, reputation, profit, etc.). Both human and social capital theorists are sensitive to questions about the transformation of one kind of capital into another; indeed their interplay was central to Coleman's analysis as he probed how social capital contributed to the emergence of human capital (Field *et al.*, 2000; Pennings *et al.*, 1998). Thus social capital theorists might argue that investing tax revenues in education raises educational attainment and the

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