

## CHAPTER 7

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# HUMAN CAPITAL AND AGENCY THEORY

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A connection between human capital and agency theory seems obvious enough. As Jensen and Meckling told it, principal—agent theory (PAT) examines the difficulties facing principals (owners) investing in the economic activity of agents (managers) whose knowledge and interests differ from their own; they wondered why modes of corporate governance that separate ownership and control were so prevalent (Jensen and Meckling, 1976: 330). When principal and agent are defined by their human capital (HC) the ‘agency problem’ can be framed by the difference. Other economists, suggesting HC is information, define the agency problem in terms of information asymmetries between principal and agent (e.g. Arrow, 1991: 44). But agency is about more than knowing and deciding on another’s behalf; it is also about acting knowledgably and intentionally in the world, bringing one’s own HC to bear in a particular situation that is neither fully known nor fully determined by ‘causes’ (e.g. Emirbayer and Mische, 1998). People are then boundedly rational, their situations open to change through their action. HC expands from ‘know what’ to cover ‘know how’ and ‘know why’—for how we know something depends on our intentions and utilities (Ryle, 1954; Urmson, 1988: 20). We admit ‘risk propensity’ as a dimension of ‘know how’. The embeddedness of social and network capital indicates ‘know who’. Agency also suggests something of ‘know when’, awareness of the passage of time and the moment of appropriate action, and ‘know where’, a spatial appreciation of the situation.

We can use this richer concept of HC to do an analysis of PAT that takes us beyond the simplicity of *homo economicus*—but it might hide HC’s own problems, to which I turn first. We can also frame PAT as a ‘thought experiment’ about colliding

different kinds of ‘capital’—financial (what owners put up) with human (what labor brings to the activity)—to be enriched with social, organizational, and institutional capitals contributed from outside the principal—agent relationship. While Adam Smith’s mix of land, labor, and financial capitals leads to enterprise, treating HC as different from financial capital raises questions about capital theory yet to be fully addressed (Dean and Kretschmer, 2007; Harvey, 1982). There are also questions about whether we should treat HC as a theoretical construct or as a heuristic for illuminating management’s practical problems (Spender, 2009). Clearly HC is more than a rhetorical flourish to draw attention to the people involved in socio-economic processes. Its boundedness and contextuality means its value depends on its application—and value is not the same as cost. Proposals to ‘measure’ HC in some way other than *ex post* by its economic impact, stand on heroic assumptions that trump any weakness in the ‘instrument’ chosen (e.g. AVSI, 2008; Bassi and McMurrer, 2008; Castello and Domenech, 2002; Weisbrod, 1961). There are also connections between an individual’s HC and the infrastructure of its application. The value of what one person knows depends on what others know—like driving on the right side of the highway—leading to ‘externalities’. Plus, at the firm level, if application is crucial to estimating value, where do we fit in the manager’s (principal’s) knowledge about how to get her/his employees (agents) to apply their HC appropriately—as a separate body of ‘managerial’ HC or as an aspect of what makes the employees’ HC of value in the first place? Given a division of labor, every individual’s HC admits the possibility that the coordinator’s HC may be more valuable than the employees’—undermining the claim theirs is ‘the firm’s most strategic asset’. Such nostalgia may be no more than a trope in the capitalist process. But accepting the difference between principal and agent as axiomatic means HC is framed as heterogeneous and its value contingent on the context of its application—and these contexts vary widely from the national and firm level to the individual.

Our volume is directed toward the business school community wherein many presume HC is at the level of the individual—mobile, potentially measurable, and perhaps inalienable. Yet a glance at Becker’s *Human Capital* volume, or the *American Economic Review* and *Journal of Political Economy* papers that preceded it, confirms his target was the relationship between education and economic growth at the national level (Becker, 1959, 1962, 1993). His individuals are ‘representative’, their attributes stated in formulae, age, levels of or years of schooling, or on-the-job training, etc., their educational choices presumed to ‘maximize their well-being’. He did not consider how education would lead to economic success. Others extended his analysis, adding how representative students might differ in other ways: social class, parental education attainments, family connections, and so on. His program’s data are not about individual-level HC, they are at the macro-level relating national policies and outcomes, hence there is no substantial connection between Becker’s analysis and our current use of HC at the individual level or the presupposition HC might be a firm-level resource.

Becker's inquiry into the determinants of national economic growth was in a tradition that goes back at least to Sir William Petty's seventeenth-century speculations about labor as a factor of production and the UK's inventory of human capital as a significant part of its wealth (Ehrlich and Murphy, 2007; Spiegel, 1971: 126). Becker sought an economics of education following Schultz's and Mincer's initiatives (Becker, 1993: p. xxii, foreword). His contemporaries, such as Enke, Schultz, and Weisbrod, also explored measuring national capital (Enke, 1960; Schultz, 1961a, 1961b; Weisbrod, 1961). Becker hypothesized the growth not explained by rising workforce numbers, physical capital (such as plant), or technology sprang from a residual category of production factors, 'labor quality'—relabelled 'human capital' after some hesitation (Becker, 1993: 16). The links between national policies on education—and health care (Becker, 1962: 9 n., foreword)—and such economy-driving HC seemed commonsense but ignored the fact that much education is of no obvious economic relevance, e.g. the study of ancient languages or the history of art. But if educational inputs are not valuable *ex definitio*, their value must be established through their application—and agency issues are entailed. Becker's interest in formal education also made him aware of the amount of on-the-job training, drawing both public and private sector institutions into his analysis as socio-economic entities that consumed the outputs of the educational system but made investments themselves. His HC-based theory of the firm—an apparatus to take up and generate HC, and to transfer earnings from younger employees to older holders of accrued job-specific HC—seems forgotten (Becker, 1962: 48; Topel, 1991). But his sense of HC as non-rivalrous supported Clark's earlier 'knowledge is the only instrument of production that is not subject to diminishing returns' (Clark, 1923), helping open up thinking about endogenous growth—the possibility that an individual's, a firm's, or a nation's learning might return substantially more than its cost (Lucas, 1988; Romer, 1994).

In this chapter I consider the 'obvious' relationship between HC and agency theory (AT) with two goals in mind. First, to show how principal—agent theory (PAT)—the AT variant most understood by agency theory—clarifies HC as a way of describing individuals in the organizational context. Second, to explore how PAT's own shortcomings illuminate possibilities implicit but underexplored in the HC literature, for while a workplace relationship between PAT and HC seems obvious, it is conceptually complicated. I begin with a review of the two concepts' history and the research programs from which they emerged. After considering the PAT/HC interaction I show how HC might contribute to the theory of the firm. Many see the firm as a socio-economic context in which HC and agency issues collide under management's direction as other forms of capital enter the mix. Foss's and Loasby's chapters remind us there are many intuitions about what firms are and why they exist: bureaucracy, team production, transaction costs analysis, property rights, nexus of contracts, and so on (Furubotn and Pejovich, 1972; Gibbons, 2005; Holmstrom and Tirole, 1989; Mahoney, 1992; Pitelis and Teece, 2009; Williamson

and Winter, 1991). In this handful PAT stands out by treating the management of inter-individual differences of interest and information as central, offering a more formal analysis than anything available within the behavioral and organization theory (OT) traditions. In the background lies the great and almost-forgotten project of bringing the divergent discourses of economics and OT—as in ‘markets and hierarchies’—together again into a practical theory of the firm (Cyert and March, 1963: 16; Prendergast, 1999; Weber, 1968).

Today’s thinking about HC at the macro-level is relatively novel, in spite of Petty’s speculations. That individuals are heterogeneous, making it important for others to judge an individual’s skills and learning, is as old as human history. Likewise the notion of ‘human capital’ is as old as the Chinese proverb about teaching a man to fish, so feeding him for a lifetime, rather than giving him a single fish. Lane framed capital as the recognition of the value of making a hay-rake before setting out to stack the hay (Lane, 1969: 5). Adam Smith wrote of HC as one of four types of ‘fixed capital’—land, finance, labor power and knowledge—and an early *QJE* article noted the problems of considering people’s knowledge as capital (Walsh, 1935). Those who presume an individual’s ‘natural rights’ and think of HC metaphorically or ideologically as ‘inalienable’, may overlook HC’s complex history. In the Europe and US of Smith’s time, and well into the nineteenth century, human labor could be legally owned by another and traded too (Schmidt, 1998; Steinfeld, 1991). Employment law often gives firms rights over their employees’ labor, if only to deny it to others. Thus, while Becker adopted Marshall’s observation that ‘the most valuable of all capital is that invested in human beings’ as *Human Capital’s* epigraph, by no means did Marshall have in mind today’s dehistoricized ‘inalienable’ notion. The ownership, investment, and use of HC are always aspects of the social and legal systems of their time. What HC means is a matter of situated practice, constrained by employment and contract law, institutional, religious, and professional mores and so on, complexities matched by the difficulties of analyzing the consequences of HC’s application. Pigou, one of Marshall’s students, noted the benefits of an individual’s investments in education, such as piano lessons, often blur with those in consumption, such a piano playing (see also Schultz, 1961a).

In the light of these HC forerunners the novelty of Becker’s work lay in its attempt to formalize a macro-level approach towards an economic and social issue previously discussed anecdotally at the individual or class level. His formalization can be traced to Lewis’s ‘two sector’ macro-model theorizing the movement of labor from the agriculture sector into manufacturing (Lewis, 1954). Likewise Schultz looked for an ‘economics of agriculture’ and paid attention to the post-war recoveries of both Germany and Japan that he argued were education-driven (Johnson and Mellor, 1961). A glance at Ehrlich and Murphy’s opening editorial for the *Journal of Human Capital* or at Fleischhauer’s recent summary of the state of HC theory shows current HC research is more a continuation of Becker’s macro-level project rather than

evidence of new attention to a HC-based theory of the firm or its management (Ehrlich and Murphy, 2007; Fleischhauer, 2007).

In contrast, many of our volume's authors echo variations of the 'human capital is the firm's most important asset' mantra, implying the need for an HC-based theory of the firm. It may be this idea does not come from Becker at all, but from Adam Smith and Marx, via Bell and his influential *The Coming of Post-Industrial Society* (Bell, 1999). Following Weber's notion of the 'disenchantment of the world' Bell surmised an epochal transformation was under way, destroying traditional socio-economic patterns and transferring power into the hands of an emerging technocratic elite and professionalized 'meritocracy'. In a democratic capitalist system, corporations and legal and financial institutions are this elite's loci of action. Economic organizations, businesses, agencies, and bureaucracies are rising in importance while religious, academic, and voluntary institutions are declining, leading to changes in individuals' HC as they adapt to this new environment. Bell reconstituted Marx's labor theory of value and class around the distinction between professional and blue-collar work within the narrow contexts of firms and social institutions. His arguments paralleled those of contemporary sociologists (e.g. Kerr *et al.*, 1964; Mills, 1959; Mumford, 1967; Wiener, 1967; Young, 1994). They extended Weber's arguments to the popular notion of a 'knowledge-based economy' (e.g. Reich, 1992), reinforced by Drucker's influential writings (e.g. Drucker, 1988, 1992). Becker's somewhat tangential interest in firm-specific training and his distinction between general and specific on-the-job training picked up on Pigou's analysis of firms' free-riding on public goods and the debate about whether firms should be rewarded for providing vocational training that could be useful to others (Stevens, 1999). In general the Becker program still focuses on the national education system and its macroeconomic impact (e.g. Hartog and van den Brink, 2007).

A first conclusion, then, is that to make sense of HC we must be explicit about its application context. This varies from the national level—Becker's program—to the firm or institutional level—Bell's program—and then, perhaps, to the individual level. Likewise HC's 'obvious' connections to agency differ according to level—to differences of information and interest between individuals, organizations, institutions, or nations. But nowhere can HC stand on its own as an abstraction, its application context must be recognized. Of course, knowledge of context is not all there is to HC but it is clearly material to its value. Measured in terms of its real-world impact, HC points to the agent's (individual, firm, or nation) ability to note, negotiate, and manipulate a specific situation. Likewise it presupposes a socio-economy open to manipulation by agents with relevant HC; a point made in many other chapters (e.g. Nahapiet, Chapter 2) that HC presupposes social, organizational, or structural capital, that it is simply one of several 'capitals' that are mutually constituting and defining (Coleman, 1988; Spender, 2009).

If all capitals are interconnected it makes little sense to separate individually held capital from the inter-personal or 'relational'. The much-cited typology of

‘intellectual capitals’, of human, relational, and organizational types, points less towards the possibility of defining or measuring them separately than to restating their mutual constitution and definition, the impossibility of one without the others (Stewart, 1997; Sveiby, 1997). Thus the ‘obvious’ connection between HC and AT, and thereby to the human capital of others, is but one aspect of its contextualized nature. PAT suggests one application context, albeit stylized and minimalist. It follows that HC as knowledge about purposive human action in a specific socio-economic context differs from impersonal ‘scientific’ knowledge of Nature. Not only can HC not stand on its own, it necessarily hangs within frames shared with others who differ from us. So while AT implies HC so HC implies AT. In the next section I review the emergence of AT—in particular, I surface contradictions in its literature that have important implications for HC and its application in organizational contexts.

## 7.1 PRINCIPAL—AGENT THEORY

Just as HC is an old concept newly refashioned into a ‘revolution’ in microeconomics (Ehrlich and Murphy, 2007; Jensen, 1983), agency theory has been recently refashioned. Princes, merchants, and estate owners long relied on agents to make decisions on their behalf, and the troubles this leads to are equally well known. Machiavelli proposed Draconian pre-emptive measures should agents not heed their masters’ bidding (Williamson, 1993). Throughout books 4 and 5 of the *Wealth of Nations*—those discussing (a) the economic challenges of managing the British colonies and (b) the inherent weaknesses of the joint-stock companies then being formed, such as the South Sea Company—Smith devoted attention to the utility and perils of using agents. He advised against rigid regulations to prevent the servants of overseas corporations, such as the East India Company or the African Company, trading on their own behalf. Generally he urged aligning the interests of the agents with those of the parent company via its arrangements for defense and credit. He was less concerned with the agent’s technical competence, more with how their interests intruded into the company’s affairs—a lesson for today. If alignment could be achieved, the agents would see themselves as corporate entrepreneurs despite not being owners of the main enterprise. Instead, they would own a small dependent subsidiary (their night-job). Analyzing the same challenges, Adams noted the overseas agents’ dependencies; the lack of a labor market or of alternative positions obliging agents to share risks with their directors—so comprising a mode of governance (Adams, 1996).

Smith was thoroughly familiar with the centuries of accumulated experience of using agents in the Arabian, Indian, and China trades from the time of the rise of

Islam (e.g. M. G. S. Hodgson, 1974; Labib, 1969; Risso, 1995) as well as in England from before the time of the Magna Carta (e.g. Danziger and Gillingham, 2003). He was also familiar with the economic forces separating ownership and control as the precursor to raising capital, expanding trade, and growing the economy (Chaudhuri, 1985: 203). This separation was common by the twelfth century—evident, for instance, in Shakespeare’s *The Merchant of Venice*—with at least three effects. First, before secure government investments like T-Bills were available, when the opportunities in their own businesses were exhausted, successful traders had to invest surplus funds to protect them from theft or royal seizure—as in Marlowe’s *The Jew of Malta*. This meant delegating a degree of control to others. Second, expanding trade required new methods of gathering funds for projects more costly than traders alone could afford, requiring a means of governance of the resources of others. Third, it became crucial to distinguish individuals from their money, socially and legally, so setting the stage for the distinction between an individual’s own capital and that which, although in his possession, was owned by another, and thus for double-entry bookkeeping—all additional preconditions for a capital market (Labib, 1969).

Thus the stylized principal—agent theory that emerged from Jensen and Meckling was far from the whole of our experience of this ‘profoundly sociological’ relationship (Shapiro, 2005). In an academic sense, Jensen and Meckling took off from a discussion of ‘moral hazard’ (e.g. Mirrlees, 1999; Spence and Zeckhauser, 1971) and another about incentives and the trade-off with risk (Prendergast, 1999; Sappington, 1991; Shavell, 1979; Simon, 1951). The agency relationship was defined as ‘one in which one or more persons (principals) engaged others (agents) to perform some service on their behalf which involved delegating some decision-making authority to the agent’ (Jensen and Meckling, 1976: 308). Economists saw quickly that this opened up the ‘black box’ of the firm by presuming two categories of individual within and drawing attention to the problematics of their relationship. Kiser’s definition was looser: ‘Agency theory is a general model of social relations involving some delegation of authority and generally resulting in problems of control’ (1999: 146). There was an associated body of contract law governing an agent’s legal obligations and the principal’s remedies that varied across time and place, and changing social and institutional norms governing collaborative behavior, especially among professionals (Hart and Moore, 1990; Williamson, 2002). Sociology likewise dealt with inter-individual relations and social order.

PAT’s appeal to theorists of the firm and its management lay in the way it formalized an elemental relationship that differed from both a market relationship and a direct power relationship. Many previous OT theorists sought neo-Weberian theories based on power—present in organizations (as in bureaucratic theory) but absent in perfect markets (a nod to ‘methodological individualism’). Transaction cost economics, in contrast, focused on cost differences, presupposing the existence of both firm and market and dealing with the firm’s boundary and size, rather than

its reason for existing (Casson, 1982; Dosi and Marengo, 2007; Pitelis, 1993; Williamson, 2005). Agency theory's focus on information and interest differences tempted some to see PAT as an information-based theory of organization, an 'informed' bureaucratic theory perhaps (Eisenhardt, 1989). Yet the reasons why principal and agent come together in the first place remained unclear. An agent may well be more skilled than the principal whose capital comes from elsewhere, and an agent might also have more timely information, especially if opportunities for new deals were arising 'on the spot'. But, equally, the agent might be less competent, putting the principal's capital at risk beyond that agreed to, or engage in non-transparent non-productive behavior, calling for monitoring by the principal or by a second overseer-agent.

Many proclaimed PAT a new theory of the firm that offered insights about organizations large and small, for-profit and not-for-profit, commercial and academic (Fama and Jensen, 1983a: 301; Jensen and Meckling, 1976: 327). It was of special significance to business educators because of its impact on our core concepts, for it redefined the manager's role as the shareholders' agent, charged to maximize their wealth rather than the firm's productivity, its decision-making capability, or even its customers' satisfaction (Jensen, 1983). Many sharply criticized this shift from efficiency, arguing it transformed 'managerial' capitalism into 'shareholder' capitalism (e.g. Donaldson, 1990a, 1990b; Dore *et al.*, 1999; Williams, 2000) and, as a result, overemphasized the owners' interests at the expense of the managers', the employees', the public's, or those of various other 'stakeholders' (Freeman, 1984; Ghoshal and Moran, 1996; Khurana, 2007; Lazonick and O'sullivan, 2000; Pfeffer and Fong, 2004). Organizational sociologists like Perrow argued PAT misrepresented both the nature of individuals and our understanding of their interactions and organizations (Perrow, 1986). Clearly, in today's climate of executive excess and widespread political malfeasance, it is tempting to pillory PAT and its proponents for seeming to validate these ethical and moral lapses, however legal they are (McCloskey, 2006; Pirson *et al.*, 2009).

It is not clear these charges are warranted. Jensen and Meckling (1976: 307) and Fama (1980: 288) were explicit in presenting PAT as a push-back against popular but loose 'behavioral' or 'managerialist' theorizing, especially that coming out of Carnegie Tech. The Rochester and Chicago argument was that such views led to misunderstandings about corporate social responsibility, viable governance structures, and the separation of ownership of control and, in many cases, seemed to reject fundamental economic principles of maximizing (e.g. satisficing) and formal modeling. So the early PAT papers were less about the ethical implications of the principal—agent relationship than about getting back on track towards real (formal) economics. These writers noted that the separation of ownership and control went back 'at least' to Adam Smith and Berle and Means (1968; Fama and Jensen, 1983b) but overlooked Veblen's *Theory of the Business Enterprise* (1904; Veblen, 1965). Veblen argued a business can only be viable when there is a gap between what the



firm's managers know and what its owners and customers know—i.e. when there are differences in their HCs (Veblen, 1965: 148 n.). Veblen not only recognized the 'agency problem', he made it fundamental to his theory of the firm.

PAT presumed two classes of individual with idiosyncratic knowledge and interests. Rather than interact through the market, they interacted within the firm in ways captured in the language of economics rather than of power. Jensen and Meckling's analysis was specifically of investment situations wherein (a) managers can draw both financial and non-financial benefits (perquisites) and (b) owners, whose benefits are solely financial, can expend funds to monitor them. They went beyond the agency costs associated directly with bounded rationality—monitoring, surveillance, or bonding—to consider the less-direct costs when things did not turn out as agreed and led to 'residual loss' (Jensen and Meckling, 1976: 308). As they sought an economic optimum, their analysis turned on the role played by efficient markets 'characterized by rational expectations' (Jensen and Meckling, 1976: 345). These provided the prices that enabled them to draw their graphs and offer determinative solutions. Retaining the agent's self-interested choosing, suppressed in a bureaucracy, the firm was redefined in terms close to two-person game theory with a two-currency (two-interest) payoff.

Fama argued Alchian and Demsetz's and Jensen and Meckling's 'striking insight' opened up the 'black box' to view the firm as a 'set of contracts among the factors of production' (Fama, 1980: 289). But Fama thought this did not go far enough—for while the firm was a 'nexus of contracts' for the factors of production, their coordination was also about allocating the firm's risks (Shavell, 1979). When these are shared between owners, managers, and even employees, simple concepts of entrepreneurship and ownership collapse. Indeed, noting 'the ownership of capital should not be confused with ownership of the firm', Fama argued the latter should be abandoned and with it much of the talk about separating ownership and control. Real-world contracts are often open-ended or incomplete (Hart, 1991) and in many situations non-existent (Macaulay, 1963). Viewing the PAT relationship as an elemental firm, Fama separated the overall task of entrepreneurship into its constituent parts. Admitting differences of interest between individuals, he also distinguished the practice of 'management' (a knowledge-based coordination and control activity) from that of 'risk bearing' (typically but not necessarily involving up-front funding). Skipping traditional HC definitions as 'knowledge and skills' he defined the manager's HC as an outcome, the stream of her/his future wages following their knowledge and skills' application (Fama, 1980: 297). Fama's model presumed multiple periods and the consequences of managing and risk-bearing and was thus more realistic than Jensen and Meckling's market-price-dependent single period model (Jensen and Meckling, 1976: 351). *Inter alia*, Fama's model made space for the theory of employment suggested by Coase in which unenterprising employees sought 'insurance' against the uncertainties of being jobless even while realizing their labor would benefit others (the risk-bearing security-holders) (Coase, 1991).

Fama also realized the separation between his two types of HC—'managing' and 'risk bearing'—was institutionally contingent, workable only because (a) residual risk-bearers—and claimants—could trade the various risks they took into specialized capital markets, and (b) owners could use the external labor market for managers to 'discipline' the non-risk-bearing managers' behavior—a restatement of the Smith and Adams points mentioned earlier. Such capital and labor markets are institutional in the sense of being time-full ongoing interactions wherein memory and expectations play a crucial role—they are not spot markets that equilibrate and clear in a timeless instant. Fama took the idea that an external labor market might influence the firm's managers, so providing owners with control beyond that in the Jensen and Meckling analysis, from Alchian and Demsetz (Fama, 1980: 294). At the same time, even though risk-bearers could use the capital markets, the added safety of a portfolio of investments would incline them to diversify their risks away from the one firm. Fama concluded the 'efficient allocation of risk bearing seems to imply a large degree of separation of security ownership from control of a firm' (Fama, 1980: 291). Even given adequate internal monitoring and transparency, the signals provided by the labor and capital markets could act powerfully on the various agents' decisions and make it possible to integrate the 'nexus of contracts' into the viable economic entity then open to the further market 'discipline' provided by competing firms.

In this way Fama distanced his theory from that of Jensen and Meckling and of Alchian and Allen (1969), Alchian and Demsetz (1972). In later papers together with Jensen, Fama seemed to retreat from his initial institutionally contingent model in the pursuit of more generic mathematical models (Fama and Jensen, 1983*a*, 1983*b*). They argued the adoption of the 'nexus of contracts' model of the firm allowed a restatement of the 'agency problem'; 'An important factor in the survival of organizational forms is control of agency problems. Agency problems arise because contracts are not costlessly written and enforced' (Fama and Jensen, 1983*a*: 327). Were a set of 'complete contracts' available, the agency problem would disappear, for the firm could not then be distinguished from an efficient market. While the later Fama and Jensen definition differed from their earlier one—indeed they did not even try to define the cause of the agency problem—PAT's significance lay in how it distinguished a firm from an efficient market or pure power relationship, entwining the agency problem in the nexus of contracts approach. As a firm embraced multiple agents so different interests were drawn in. If these did not differ the agency problem would be reduced to one of information asymmetry alone, and so priceable—without differences of interest there is no agency problem. Fama showed that when these are present rational individuals cannot resolve the agency problem unless they share and submit to a common institutional context. Second, while Fama's model seemed to make risk axiomatic, it actually brought Knightian uncertainty into the analysis (Knight, 1965). Knightian risk can be priced, as in the Jensen and Meckling model, but in the Fama model risk cannot for it includes Knightian uncertainty.

## 7.2 UNCERTAINTY

Uncertainty perplexes and cannot be theorized—else it would no longer be uncertain. However it can be illuminated (Spender, 1989: 43). Both Knight and Keynes argued much economic activity involves our ‘simply not knowing’ (Keynes, 1937: 214; Knight, 1965). This need not end the discussion for there are several ways of ‘not knowing’. Knowledge has proved a puzzle to those interested in it as a component of human capital—we often claim HC is ‘knowledge and skills’. While it seems easy to define HC this way, it is difficult to understand the implications, for knowledge is an unusually opaque term. Unlike many other terms such as ‘hot’ or ‘left’ we cannot understand knowledge by pointing to its ‘opposite’, such as ‘cold’ or ‘right’. We cannot ‘know’ the opposite of ‘knowledge’—‘un-knowledge’. Luhmann urged us to appreciate the difference between ‘externally referenced’ and ‘self-referenced’ terms—we can know the opposites of the former but not the latter (Luhmann, 2002). ‘Ignorance’ is meaningless until we know what we are ignorant of and thus define it as a knowledge absence framed by the known—a discovered inability to ride a bicycle, perhaps. For this reason, theories of knowledge (epistemologies) have generally turned on typologies of knowledge rather than on definitions of knowledge, so breaking up the self-referencing notion knowledge (which actually means no more than the experience of consciousness) into contrasting constituents. The Ancient Greeks distinguished, for example, between *episteme*, *techné*, *sophia*, and *phronesis*. Kant theorized differences between synthetic and analytic, Locke those between rationality and judgment. These distinctions turn on our experience of being in the world. In modern times we have tried to grasp knowledge using practical distinctions like individual versus organizational, explicit versus tacit, embodied versus embrained, and so on (Blackler, 2002; Spender, 1996a, 2002).

While uncertainty seems different from knowledge, it can be considered a condition of knowledge absence—but this of no help if we cannot grasp either notion securely enough to locate and make meaning from their contrast. Knight introduced uncertainty into contemporary economics by contrasting it with risk as a type of socially embedded knowing. He argued risks were eventualities against which one could get insurance, while uncertainties were those for which one could not (Knight, 1921). We need population statistics before we can define a risk. When we have no such data we have uncertainty. More importantly uncertainty means neither does anyone else so there is no market in which we can lay off uncertainties as risks—as we do when taking fire-insurance. Knight’s definition was an empirical test of the socio-economic context; backward economies being those that do not have well-functioning insurance markets or other social institutions that enable businesses to lay off a significant portion of their uncertainties as insurable risks in the manner Fama presumed. Under such circumstances businesses have to carry all

risks themselves and are less likely to be formed. Knight did not unpack uncertainty beyond arguing it reframed business management as an art form, a matter of personal judgment, rather than as a science (Knight, 1923).

We can unpack uncertainty with a typology of knowledge absences by contrasting epistemologies—especially by contrasting positivism against subjective or constructivist interpretivism. This gives us at least three distinct ways in which to capture our awareness of ‘not knowing’. We can adopt a positivistic stance, which presumes a logical and knowable world, and confront it to discover a specific ignorance in terms of our inability to know the natural world well enough to manipulate it predictably. Positivism seeks to reveal Nature in ways that help us forecast the results of our manipulations. While inductively generated heuristics are a start towards codified effective practice, empirical science is an inventory of our rigorously and statistically justified successes (Kuehn and Hamburger, 1970). In spite of the positivist dispositions so evident in our journals, PAT’s target is not Nature but the social world and our relations with others who have attributes similar to but different from our own, such as utilities and interests. As Knight noted, enquiries here must be conducted in a very different manner (Knight, 1923: 24). As we confront and interact with like others we experience two quite different ways of ‘not knowing’. First, we discover time and the uncertainty associated with our inability to anticipate fully the actions of others. Shubik, a seminal game theorist, labeled this type of uncertainty ‘indeterminacy’ (Shubik, 1954). Since B does not know what A is going to do, nor even how he is going to interpret A’s action, there is no sense in A attempting to forecast B’s reaction. Game theory, of which PAT might be thought a version, addresses some of these issues and ‘works’ under sharply defined conditions of full or asymmetric knowledge. It breaks down under Knightian uncertainty, when A and B ‘simply don’t know’. A makes a judgment, takes a guess at B’s response—but that has to be based on something less than a complete determination derived from B’s previous actions, declarations, the presence of influential others, and so on: factors that might support A’s grasp of the situation but can never lead to a certain forecast. In the absence of complete knowledge, we are ‘agentic’—thus Knight’s analysis took us beyond contextual analysis into a consideration of A’s action as a projection of her/his self into the situation as a quite different means of dealing with uncertainty: agentic proaction rather than incompletely determined reaction.

Through our agentic actions under Knightian uncertainty we discover our identity and bounded rationality—and the fact that others may well differ and have different views that may be irreconcilable. This is ‘incommensurability’ (Spender, 1989: 43). PAT brought indeterminacy and incommensurability into the analysis—along with ignorance (asymmetric information)—as it adopted the axiomatic distinction of principal and agent. Game theory only provides solutions when these uncertainties are eliminated by, for instance, sharing knowledge of the payoff matrix. It offers no solutions when the inter-individual indeterminacy

is unresolved; multi-period learning and mutual adjustment is required. Incommensurability is political theory's basic problematic—to be resolved by the exercise of power, as in Hobbes's *Leviathan*, or by negotiation and reconciliation, De Tocqueville's solution: the extremes of hierarchy and market. Social institutions arise in the middle ground to help us manage the uncertainties of our interactions collectively (North, 1990). The bottom line is that if agency theory does not admit uncertainty it is trivial: 'the problem acquires interest only when there is uncertainty as some point' (Arrow, 1991: 37). When the uncertainty is nothing but risk, PAT is a variant of game theory. Fama's principal point was that when there are Knightian uncertainties—such as irreconcilable differences of interest—then the PAT relationship breaks down absent an agentic appeal to some extra-relationship institutional apparatus.

### 7.3 FROM PAT TO HC

What can we draw from this discussion of principal—agent theory? For neo-classical economists PAT was unquestionably revolutionary in that it got into the 'black box'—displacing notions of the firm as either a single entrepreneur or an inanimate production function. It did not do this by shifting the analysis into a sociological or organization theory (OT) frame where it would abandon the axiom of economic rationality and hinge on a division of labor and a power-based system of coordination—or through any political or evolutionary or organismic version of that (Morgan, 1986). It got into the firm by redefining it as an interaction between individuals with differing HC. But there could be no solution until that HC difference was contained by its relationship to some social or institutional capital—in which case equilibrium solutions are no longer available. Ironically, as an equilibrium theorist, Arrow noted the need to consider social embeddedness as he observed the evident differences between real agency relations and those prescribed by PAT (Arrow, 1991: 48).

Once uncertainty is admitted and equilibrium theorizing is abandoned there is more to agency theory than the HC differences between security holders, managers and employees. In Fama's initial and Fama and Jensen's later formulations, the separation of management and risk-bearing would remain beyond analysis were the firm not embedded in an institutional and historical context. Then the agency-problem-addressing manager would have to identify the specific far-from-perfect markets for capital and managerial HC actually available and make arrangements through them to promote organizational order. Pushing into the black box also meant pushing into the real options available in the firm's markets and noting their imperfections. Thus the principal—agent model of the firm presupposes

both imperfect people (i.e. with heterogeneous and boundedly rational HC) and imperfect markets. In their edited compendium of the TCE and AT literature, Barney and Ouchi surmised: ‘organization theory cannot explain why firms exist because it includes no concept of a market as an alternative to organization for governing exchanges’ (1986: 212), that is, there is nothing theoretically significant lying outside the firm’s boundaries. Barnard also remarked on the way social scientists approached the market at the edge of the organization, only to retreat (1938: p. ix). Barney and Ouchi traced this tendency to ignore the market’s distinctive nature (or the consumers’ behavior) to the work of Chandler and his interest in a contingent ‘fit’ between strategy (the firm’s market engagements—defined in terms of its various products and services) and its structure (its resource dispositions and administrative arrangements) (Barney and Ouchi, 1986: 15; Chandler, 1962, 2009). Again Barney and Ouchi missed the institutional program in which Veblen and Commons played key parts (Commons, 1957). Whether ‘organizational economics’, as they defined it, falls within today’s ‘new institutional economics’ is a separate issue (Furubotn and Richter, 1991; G. M. Hodgson, 1989, 2004; North, 1986; Williamson, 2000). But there was a clear step from Jensen and Meckling’s abstract and decontextualized model to Fama’s overtly institutional discussion of judicious agentic appeals to the external markets for (a) specialized types of capital and (b) specialized managerial expertise.

Fama introduced time, history (multiple time periods), Knightian uncertainty, and expectations into his analysis—giving the actors’ HC new dimensions. Jensen and Meckling expressly ignored these, presuming a single-period analysis, in which case expectations would be irrelevant, there would be no uncertainty, learning would be impossible, and the relevant HC could be no more than information for a rational individual to compute (Jensen and Meckling, 1976: 314). Rational Man cannot learn, being no more than a superfast biocomputer. In contrast, Fama’s individuals are bounded rational, have divergent interests, a sense of the multidimensioned institutional context in which they are embedded—comprising both time and space—and have expectations that their experience might or might not alter. They mull over their decisions.

Readers of the *Academy of Management Review* rather than economists and sociologists who look to their own journals, might note that Eisenhardt’s much-cited PAT review missed PAT’s extra-organizational institutional dimensions and, with them, the resulting interplay of history, bounded rationality, memory, expectation, and learning. Even Demski and Feltham’s (1978) analysis of PAT in accounting caught the importance of a multi-period model. Thus Eisenhardt’s remarks about the parallels between PAT and other OT theories were way off the mark. She observed, correctly, that when agents shoulder part of the principal’s risk the agency problem diminishes—a tautology. She leveraged Jensen’s problematic distinction between positive and normative theorizing (Jensen, 1983: 320) and concluded ‘the heart of principal-agency theory is the trade-off between

(a) the cost of measuring behavior and (b) the cost of measuring outcomes' (Eisenhardt, 1989: 61). This completely ignored the uncertainties that powered Fama's analysis and the way institutional embeddedness might help contain the uncertainty-generating differences of interest. Her analysis merely rephrased one of OT's oldest problematics: under the circumstances of incomplete control are managers to insist on rule-following conformance (working to rule) even when that leads to suboptimal outcomes, or to set output targets and ignore how workers actually meet them? The agent's freedom to choose—axiomatic to PAT—was excised. Ignoring the organization's institutional context, she fell to Barney and Ouchi's critique of ignoring the market. Curiously, while she dismissed Barney and Ouchi's emphasis on the ways capital markets affect the firm (Eisenhardt, 1989: 57) she cited Wolfson's analysis of this very matter (Eisenhardt, 1989: 68; Wolfson, 1991).

We can summarize how agency theory, as considered above, helps define the HC necessary to the viable firm. Organization theory's focus on the role-occupant's knowledge and responsibilities is less helpful than it appears at first. Yes, there is a division of labor and a need to see HC as heterogeneous. But, as noted previously, identifying this does not explain why firms exist or the managerial knowledge and skills required to bring differing individuals together into a viable firm. As Grant has reminded us, like Barnard before him, the theory of the firm must address coordination and integration (Grant, 1996). OT's emphasis on power as the sole means of coordinating others' capabilities does not help identify the specific HC managers must bring to bear—managers, security-holders, and employees are more than their power. PAT draws attention to (a) the heterogeneity of the actor's HC, (b) the need for coordination and governance, (c) the boundedness and time and space contingencies of the context, and (d) the uncertainties around the process. The microeconomists' conceit is that the risks and uncertainties the leader must resolve are always economic in nature and that the capital markets can price them. This is an *ex post* view in which prices follow the success or failure of the coordination process. For the entrepreneur, risks are *ex ante*, multidimensional, and comprehensive, not merely financial. This world is one of uncoordinated heterogeneous resources, land, and labor (and technology) as well as cash, in which profit is the score, not the process; an uncertain world in which the relations between things and the consequences of their interactions can never be fully foreseen. In general, along with Simon, we can argue that any actor's engagement with another entails a degree of Knightian uncertainty and thus calls for leadership (Spender, 2008). Thus Fama's PAT is something of a donut—an open-ended 'theory' with a hole in the middle, only made complete and determinative by an act of entrepreneurial agency. Loasby (Chapter 9) reminds us neo-classical economics, looking only to the market and ignoring production and ignoring uncertainty and agency, has neither a need nor space for such leadership.

## 7.4 MITNICK'S AGENCY THEORY

The preceding section illustrated how PAT broadens HC to embrace uncertainty resolution for it can never be only about an individual's knowledge, whether explicit or tacit; it is also about the human capability to deal agentially with the knowledge absences that arise during application. But bringing uncertainty into the discussion demands close attention to the methodologies adopted. PAT admitted bounded rationality and information asymmetry but held fast to rational maximization and 'classical forms of economic behavior, with each factor motivated by its self-interest'—without which the analysis would no longer have been economics. Thus PAT, along with its cousin, transactions costs economics (TCE), was allied to Becker's broader project to create not just an economics of education, but an economics of marriage, child-rearing, emotion, and much else besides. Many saw this as microeconomics' push to 'colonize' the other social sciences—politics (Miller, 1997), sociology (Beckert, 1996; Hirsch *et al.*, 1987), psychology, and so on. A disciplinary crisis in the 1960s led microeconomists away from theorizing market behavior and towards applying their disciplined 'economic approach' to matters central to politics, sociology, and psychology (Becker, 1976). Fine and Perrow were especially critical, observing that just as the other social sciences were retreating from the extremes of postmodernism and searched for the practical, microeconomics plunged into these same areas riding on the abstractions of methodological individualism (Donaldson, 1990a; Fine, 2000, 2008; Fine and Green, 2000; Perrow, 1986).

This colonizing move was also felt beyond mainstream economics (Kiser, 1999; Shapiro, 2005). Shortly before Jensen and Meckling's paper appeared in 1976, Mitnick published the first of a succession of papers in which he modeled the principal—agent relationship (Mitnick, 1975, 1976, 1997). Less mathematical than the PAT mainstream his model brought different ideas to bear. Leveraging from the behavioral theory of the organization (e.g. Cyert and March, 1963) Mitnick probed the resources to be managed and presumed an agent would often have effective control of some 'organizational slack'—uncommitted resources which s/he could deploy to increase her/his own rewards (Mitnick, 1975: 37). Realizing this, the principals might divert some of the 'excess' resources into policing the agent, normally with negative consequences—suggesting a 'paradox of policing', a PAT form of sub-optimal managing. While Mitnick's model did not appeal to external markets as Fama's did, he raised new questions about the heterogeneity of organizational resources and the zone of discretion an agent might be able to find. Operating within this zone, unbeknownst to the principal, agents would be able to meet their principal's expectations with fewer resources than they actually had available and divert the benefits of the rest towards their own goals. Mitnick's model was a more formal statement of Smith's earlier cautions against overpolicing corporation agents found trading on their own behalf.



The contrast between Mitnick's model and those of Jensen, Meckling, and Fama was not merely about where their articles were published and the different disciplinary consequences. Mitnick surfaced questions about the heterogeneity of the firm's resources that were glossed by the PAT mainstream. At the start of this chapter I simply assumed the relevance of HC. Now, having unpacked the notion, we see how it has to be expanded to involve intangibles such as information, skill, interest, and entrepreneurial agency. For many economists such things are not resources at all until they have a market price. Inside the black box things are less transparent and the tangible/intangible distinction blurs even as the interactions are crucial. Monitoring consumes tangible resources and produces information, something intangible. Yet this is of economic consequence as it helps shape tangible profit. PAT was radical in pushing beyond priceable resources and was a clear move towards the HC-based theory of the firm. But Mitnick's model drew attention to their interplay, so introducing a new source of uncertainties to be resolved.

That slack intangible resources might have economic value draws attention to their potential, something unrealized, and to the necessary link to some tangible resources through which their value might be realized (G. M. Hodgson, 2008). Intangible resources can never have value on their own, a complementary tangible resource is required if they are to realize value. Expertise, as an intangible, must act on or through something tangible in the practical world of things, such as tools, and actions, such as hammering, and the mental world of language, ideas, and decisions about where and when to hammer (Chi *et al.*, 1988). There is no need to recapitulate a Wittgenstinian or Habermasian analysis of the relationship between language and practice in order to bring these worlds together. We can see the intangible resources to which the HC literature draws attention cannot be considered economically valuable absent the interplay Mitnick considered. Penrose's much-quoted 'it is never resources themselves that are the inputs in the production process, but only the services that the resources can render' (1995: 25) spoke directly to the relationship between tangible and intangible resources—the intangible resource being the knowledge with which her 'management team' transformed tradable resources into what the firm takes up as value-adding services. A link between resources and their value lies in the coordinator's knowledge of how to engage the tangible and intangible resources with each other. Both principal and agent help identify, select, and engage these resources (Bester and Krämer, 2008) whose economic value is always underdetermined, contingent on knowing how to bring them into the value-generating process. Only under conditions of certainty (and space- and timelessness) can a resource's 'value' be fully determined and stated. Thus the heterogeneity of HC arises out of the variety of tangible resources that enable its value to be realized.

The methodological shift from neo-classical place- and time-free goods and services, to the dynamic and contingent space and time contexts of HC that make us think of it valuable, highlights learning—its acquisition along with its application. Fama moved learning toward the center of his early thinking, but it

disappeared from his later PAT work. At the same time, while in Becker's model HC is explicitly about education and learning at the national level, there is surprisingly little discussion of learning in the individual-level HC literature. Learning, central to Penrose's analysis, must also be central to any analysis that engages the notion of intangible resources (Spender, 1994). Thus PAT was further radical in embracing learning via attention to (a) how principals and agents learn about the relevant institutional constraints that help their relationship continue, such as laws, capital markets, social customs, and norms, and (b) how they might, over multiple time periods, learn about doing business together, signaling to each other and enter into a state of 'trust' that reduced the need for monitoring, bonding, and so on, and (c) individually, as they went about their different business, learn from dealing with their various situational uncertainties they encountered and thereby extend their HC.

Rather than analyze and critique the vast literature on learning and its place as a component of HC (e.g. Argyris, 1982; Bahk and Gort, 1993; Bilodeau, 1968; Darrach, 1996; Dodgson, 1993; Engeström, 2001; Gagné, 1985; Lamoreaux *et al.*, 1999; Lewicki *et al.*, 1987; Nicolini *et al.*, 2003; Pawlowsky, 2001; Prichard *et al.*, 2000; Spender, 1996b) I focus on one aspect every HC-based theory of the firm must consider. As mentioned earlier, 'rational man' (RM) has many deficiencies along with his powerful attributes. One is that he neither learns nor needs to, just as a computer does not learn; a computer only computes, as opposed to being a beige box full of prettily colored cables and components, when a program has been inserted. The programmer changing the program is the one learning, not the computer (Dreyfus, 1979). Likewise RM only needs inputs—including an objective function—and enough consciousness to compute them. The person who 'learns' is someone other than RM. Learning hinges on imagination, a quality of mind that stands opposed to that of reasoning. This is explicit in constructivist theories of knowledge and learning (Fosnot, 1996; Lave and Wenger, 1992; Poerksen, 2004; Steffe and Gale, 1995; Steffe and Thompson, 2000; Sharp and Gallimore, 1988; von Glasersfeld, 1995, 2002). Non-Platonic theories of learning (those that do not presume that learning is about uncovering and bringing into consciousness essences that are genetically given and already known at some deeper level) presume a model of man quite unlike Rational Man. This other model presumes we possess both reason (RM's defining attribute) and imagination (which agency demands). As Locke observed, when our reason fails us, we call on our imagination, linking the experience of knowledge absence to acts of innovation and learning (Locke, 1997).

The other part of agency theory, hidden from the analysis whenever RM is made axiomatic, is that which brings our imagination and its engagement with Knightian uncertainty into focus. There is a huge literature here, often referred to as the 'structure and agency' debate (Archer, 2000; Bandura, 1989; Heugens and Lander, 2009; G. M. Hodgson, 2004; Korsgaard, 2008). To be an agent an individual has to have some freedom of choice and action. We thereby become responsible for our actions and

thoughts. Human agency implies a philosophical position in which our creativity stands between the forces acting on us, and our actions (Emirbayer and Mische, 1998). It underpins Enlightenment beliefs about identity, personal freedom, and methodological individualism. Agency is the identity-defining contribution an agent makes in underdetermined circumstances (Korsgaard, 2009). It is about us ‘making a difference’. It differs from ‘free will’ because in any stable space-time socio-economic domain an agent’s freedom is constrained and less than complete, as the quip about ‘Not having the freedom to shout “Fire!” in a crowded theater’ reminds us. But once human agency is made axiomatic to the analysis attention must be shifted to the structures that constrain it and channel its realization.

It is interesting to see how the PAT literature fails to clarify why the principal and agent enter into a relationship in the first place. Under conditions of certainty any needs the principal might have that he cannot satisfy on his own can be handled across the market and through contracts between principals—agency is irrelevant. But under conditions of uncertainty the imagination must be brought into play. While the neo-classical or positivist approach attempts to explain everything in terms of determinable causes and their effects, imagination demands a different analytical framework. The principal turns to an agent when s/he cannot or does not wish to provide the needed imaginative component of HC—perhaps lacking the relevant experience, information, or location from which to learn how to deal with the uncertainties arising, or through laziness or being overstretched. The impetus behind the principal—agent relationship is the principal’s recognition of (a) the situation’s uncertainties and (b) the boundedness of his/her own imagination, together with (c) an ultimately unwarrantable trust in the agent’s capabilities.

This section has explored PAT, showing it only makes sense under uncertainty, over multiple time periods, with a learning engagement that calls forth previously unconsidered dimensions of HC. HC is expanded into a dynamic concept or process. In the next section I deal with some of the challenges raised by allowing imagination into the analysis. My emphasis will be on (a) the flexibility this introduces and (b) the attendant problems of its containment. PAT ultimately demands attention for the presumption we are all agentic and that our imagination rather than our rationality is the source of all progress—and the nation’s wealth.

## 7.5 FLEXIBILITY

In a 1996 paper Foss sketched a theory of the firm that differed from the PAT, TCE, team production, property rights, and the nexus of contracts approaches. Rather than ‘economizing’ in an equilibrium framework, he suggested a better answer

might lie in firms' greater flexibility of organizational arrangements. 'Rather than conceptualizing the firm as an entity that is primarily kept together by transaction cost minimization, [we] extend the view of the firm as an entity whose primary role is to acquire, combine, utilize and upgrade knowledge' (Foss, 1996: 17). It was also clear that flexibility, a mark of functioning markets, seems eliminated in most organization theory; bureaucracies only adapt by redesign. Foss positioned his theory of the firm in a 'hybrid' region somewhere between hierarchy and market, absorbing some of the market's flexibility into his theory. Goal-oriented learning that flowed from successful problem-solving within a structure of incomplete contracts constrained by centralized control was crucial.

Many organization theorists have struggled against the supposed inertia of bureaucratic theory by invoking 'the learning organization' (e.g. Garratt, 1987; Nonaka, 1994; Senge, 1990). But, while presuming the presence of human (or even organizational) imagination, they typically overlooked how it must be governed towards productive learning rather than mere disorder. Many ignored individuals and their HC altogether. A methodological individualist, Foss made individuals and their learning axiomatic and envisioned a flexible mode of governance based on the interplay of central direction and individual learning. He argued markets were not, as in the neo-classical model, efficient incentive mechanisms. Rather they were 'embodiments of options'—places of heterogeneous trading opportunities that purposive firms selected, took up, and wove into profitable activity. Foss noted Loasby's aphorism: 'firms provide contracts for future options whereas markets provide options for future contracts' (Loasby, 1994). But options presume uncertainty and underdetermination and for markets to function there must be some means to contain this. Foss cited Kreps's notion that 'corporate culture is essentially reputation capital that tells the employees of the firm and its external suppliers how the firm will react to unforeseen contingencies' (Kreps, 1990, 1992). Firms existed because their hierarchy offered 'better bargaining costs relative to the market'. Here Foss took up Marengo's observation that coordination would be impossible without contractual incompleteness and noted 'the superior flexibility that hierarchy may obtain relative to market contracting in influencing input-owners' actions in response to partly unexpected developments and new learning' (Conner and Prahalad, 1996; Marengo, 1992).

Thus while most PAT theorists take opportunism as axiomatic, to be tamped down by the principal, Foss adopted it as a core reason for the firm's existence, as Veblen had done before him (Veblen, 1965). The firm was reconceived as an apparatus to capture the fruit of the various incompletely contracted agents' imaginations as they struggled with unforeseen uncertainties within the general constraints of the firm's strategic goals. The managing Fama distinguished from risk-bearing did not shut down the agent's imagination; it directed it. In this way Foss's model also penetrated the black box. Both principal and agent provided focused imagination of the boundary-spanning sort in Thompson's influential analysis, itself

derived from Barnard's (Thompson, 2001). This achieved results far beyond those of Alchian and Demsetz's modest model of collaborative labor. The principal's risk-bearing burden was shared, not only with other investors, as in Fama's model, stressing the financial capital markets, but also within the firm, among those whose better experience, learning, and HC investments were attuned to dealing with the plethora of non-financial uncertainties at hand. Even though Foss's model lacked an explanation of how individuals' agency was to be shaped by the centralized governance system, for he stressed the economic value of flexibility rather than of control, implying a return to Smith's kind of agent, the profit-pursuing employee doing his best to be open to new conditions and exploit unforeseen options.

In a parallel historical analysis White leveraged from Isaacs's 1925 *HBR* article on agency and Llewellyn's analysis to stress the complementary flexibility and institutionalized embeddedness of agency relations (Isaacs, 1925; Llewellyn, 1930). 'Agency is an ancient device for getting business done which remains fresh and in common use. It is intensely social in its mechanism since it gets one person to do something for another vis-à-vis a third person, but only with heavy reliance on the lay of the social landscape. Opportunity and flexibility, in both the short and the long term, are key to agency's perennial robustness' (White, 1991: 187). He argued the purpose of the agency relationship is control and that it is a solution rather than a problem, a kind of social plumbing intermediate between market and hierarchy; more than a tie, a context for ties that cast shadows of commitment. At one extreme was *shaliach*, the Old Testament notion of the person sent not only 'in the name' of the principal but 'in his person', whose action unalterably committed the principal. At the other extreme was the minimal tie of mutual acknowledgment of civil existence needed to establish relations in a market. In between lay the firm wherein an employee has less say in the specifics of action than an agent, but a more fixed reward (White, 1991: 189).

White's analysis showed how flexibility and learning destabilized the principal—agent relationship. In contrast to the mainstream PAT assumption that the roles of principal and agent were fixed and inviolable, a historical analysis shows that as circumstances change and the various parties adjust, the roles might well reverse; those used to controlling might find themselves being controlled (White, 1991: 205); given which Jensen and Meckling's notions of bonding turn out to be unrealistic and simplistic. In practice various types of 'reverse bonding' occur. Medieval kings would bind barons to them by requiring them to 'borrow' large sums the king 'loaned' to them—more than they could ever repay—before allowing them to take up their hereditary titles, estates, and associated revenues (Danziger and Gillingham, 2003). Here money was merely an instrument of control, not a resource. Reverse bonding can arise in other ways. White compared the Roman Empire as a system held together by *clientela*, family-allegiance-based patronage, with how US CEOs often hold corporate systems together with their personal patronage, a seldom

discussed feature of executive life (White, 1991: 198). The *Godfather* films showed similar systems at work.

As we admit the dynamism of the principal—agent relationship and the possibility of its reversal we uncover the power relations economists are often determined to hide—and the possibility of power as a dimension of HC once it is embedded in a social context. Perrow pointed to huge lacunae in the PAT literature, that principals are opportunistic too and equally likely to take advantage of the agent's ignorance, especially when it comes to breaking employment contracts or engaging in non-transparent but highly consequential financial dealings such as mergers and acquisitions (Perrow, 1986: 14). The principal—agent relationship is inevitably bilateral rather than unilateral, as the mainstream PAT writers would have it. In a capitalist system legal rights and social power normally go with the money. In the extreme, money overpowers the agent's knowledge, skills, and learning—financial capital trumps human capital, the shareholders' rights trump the employees'. White's more general point was that fluid and shifting agentic relations between those involved overlaid structures of delegation, authority, and control in all organizations, ancient or modern, commercial or political, religious or academic. He argued matrix structures were a modern instance, legitimated in part because 'formal' systems were typically 'insufficiently fine-grained'—providing general directions but not the detailed specifics and trade-offs necessary to keep the organization moving (White, 1991: 201). Agency theory reveals how 'informal' agentic relations lubricate the organization's functioning so that market and hierarchy interpenetrate and cannot be separated (White, 1991: 208).

Patronage is but one aspect of a social context in which it is possible for powerholders to channel their agents' imaginations towards organizational goals. Other lacunae in the PAT literature concern the ticklish matter of selecting agents. Sappington offered a rare exception, though some of Jensen and Meckling's thoughts on signaling and bonding addressed selection (Sappington, 1991). White's historical examples were based on family, ethnicity, or religion. Today business schools underpin structures of economic patronage; indeed this may be their chief deliverable given the criticisms and questions about the value of the training (Khurana, 2007; Mintzberg, 2004; Spender, 2007; Whitley *et al.*, 1981). The MBA selection process's focus may really be on testing the aspirant's attitude toward the hiring firm's uncertainties, so demonstrating s/he could be an agent of the right 'type' (Holmstrom, 1989; Kiser, 1999). Getting 'on the team' means more than having the necessary competencies; it means internalizing the organization's intentionality. A profession's 'ethics' are similar, revealed in the members' agentic actions whenever uncertainty makes choosing the appropriate rule problematic (Abbott, 1988; Sharma, 1997). Absent alignment at this level the aspirant's agency is unlikely to be manageable.

But selection alone does not guarantee alignment—governance must be present. Both Fama and White took an 'institutionalist' tack, looking to the organization's context to provide appropriate guidance to handling uncertainty, now known as

‘new institutionalism’ (Hechter, 1990; Powell and DiMaggio, 1991). But as Veblen suggested, the viable firm is not simply an actualization of contextually available options; meeting a market’s demand may not generate profit. That requires ‘competitive advantage’, the result of a managed agentic engagement with the context’s uncertainties. Eventually we see that management’s principal tool to make this happen, when the uncertainties mean rule-based systems of incentives and accountability cannot be established, is their talk—their leadership and rhetoric (Spender, 2008). An organization’s flexibility ultimately stands on the flexibility of its agents and on management’s being able to shape that agency to their own vision. Thus a final component of HC is the individual’s ability to persuade others and, in complementary manner, her/his willingness to be persuaded.

## 7.6 CONCLUSION

My chapter’s focus was the interplay of HC and AT. My intent was to show neither makes sense in a static framework; both must be considered dynamic and active. The analysis of PAT, framed as a difference in HC between principal and agent shows we should understand HC as more than knowledge and skills—as in ‘know what’, ‘how’, ‘who’, ‘when’, ‘where’, and so on—to embrace agency, our evident ability to deal imaginatively and productively with the uncertainties of our economic world as well as our social, natural, and technological worlds. Embedded in the social HC must also include the rhetorical capacity to ‘know talk’, to engage productively in the world of human discourse and persuasion. HC is an abstraction until we frame it. One possibility is to frame it in dynamic social and discursive relations with others. Then the value of any actor’s HC must be realized in a specific space-time context and through other tangible resources. All too often we use the term HC loosely, assuming it is transportable but paying no attention to its context, thus ignoring both the practical challenges of moving it around and the boundaries to its relocation.

Principal—agent theory is a powerful way of examining how HC might work in practice for it provides a minimalist theory of the firm and of the context in which HC might be of value. Probing this takes us beyond the ‘obvious’ stereotype of PAT as one person directing another to a realization that agents are not dumb tools to be directed and manipulated by principals but human beings who (*a*) reason for themselves, (*b*) bring their imagination into play to get the job done, and (*c*) are open to being persuaded to act in the principal’s interest. We end up radically reshaping the notion of HC—and its management. Instead of being an intangible resource ‘ready to hand’ like a hammer, whose application only seems unproblematic to those unskilled in its practicalities (Crawford, 2009; Harper, 1987), HC becomes the

appearance in the world of our agentic capability to make something unexpected happen as we respond to the possibilities of our uncertain space-time situation.

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