

# Influencing Beliefs

## A Crucial Capability for Value Creation in the Network Economy

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# Influencing Beliefs: A Crucial Capability for Value Creation in the Network Economy

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## The Centrality of Beliefs in Strategy

It goes almost without saying that beliefs must be crucial to the enterprise of strategy. Thus, beliefs are central to the phenomenon of entrepreneurship (individual and corporate), clearly an important part of how competitive advantages are created and maintained. The ambitious notion of “vision” — as propagated by Gary Hamel and C.K. Prahalad (1994) — refers to corporate beliefs and how these may help molding future competitive landscapes. Shorter-run aspects of strategizing, such as signaling tactics, are also ultimately rooted in what you believe about your competitors, what they believe about you, what you believe that they believe about you, etc. (Ghemawat 1991). And the outcomes of bargaining with, for example, your suppliers or employees also depend very much on the beliefs you and your suppliers or employees hold.

In fact, according to an important argument (Barney 1986), the very phenomenon of competitive advantage — the fundamental subject of strategy — is ultimately a matter of beliefs. Thus, only if the buyer of a resource has superior information regarding the uses (and hence value) of the resource may he be able to acquire the resource at a price below the discounted net present value of that resource — and hence earn a rent from the deployment of the resource. The core of the argument is that buyers and sellers may hold different beliefs with respect to the value-creating potential of the resource, and that your superior insight, or luck, may help you to exploit those differences. A fairly well known example concerns the initial sources of Microsoft wealth creation which was very much based on landing a lucrative contract with IBM for an operating system (which MS still had to develop) and then discovering a small developer of OS whose product was acquired for the (comparatively) miniscule sum of 50.000 USD, keeping the IBM contract entirely secret.

Because beliefs are so obviously central to strategy, and underlies its central phenomenon, one would expect the formal study of belief management to

constitute the central core of strategy. This is not the case. Apart from a few contributions (Barney 1986; Phelan 2000), beliefs have been given surprisingly little attention in the strategy literature. To be sure game theorists, psychologists, marketing specialists, etc. are taken up with beliefs, how they are formed, how they interact, how they may be influenced. Strategists aren't. Rather, strategists are instructed to utilize the information that they, and no (or only few) others, possess in order to be able to utilize possible divergences in the beliefs about the true values of resources on factor markets. This is taking the beliefs of others to be *given*, and hence unchanging. Perhaps this reflects a belief that beliefs cannot be molded or manipulated (or, if this can be done, that this is the task of marketing people rather than strategists) or that beliefs are just inherently too flimsy, unpredictable, vague, etc. to be something you can successfully influence in your favor.

I hope in this paper to mold and manipulate these particular beliefs. Thus, I shall argue that the ability to influence beliefs will increasingly be a central strategic capability. It will be one that goes significantly beyond the marketing function (although it will bring marketing and strategy closer together); it will be central to managing supply networks, to influencing customers and users; and it will be the key to managing employees. In particular, that capability will become important as a key source of wealth creation as we become increasingly immersed in an economy that is not only knowledge-based, but network-based (Kelly 1999; Tapscott 1999; Varian and Shapiro 1999). In this economy, firms will increasingly become confronted with what economists and game theorists call "coordination problems" that arise for various reasons, primary among which are "network effects." In these situations, the ability to influence beliefs is often crucial, in ways that will be detailed, explained and illustrated for the remaining part of this paper.

## The Argument: An Example

To get an intuitive idea of the argument, consider the following story as told by Kevin Kelly, the executive editor of *Wired*. Kelly (1999) recounts participating in 1995 in a computer graphics conference organized by Loren Carpenter where one of the events consisted in having all 5.000 attendees simultaneously operating a submarine simulator. Thus, the challenge for the 5.000 co-pilots, each one equipped with their own joystick

... was to steer a submarine through a 3D undersea world to capture some sea monster eggs. ... The sub could go up/down, open claws, close claws, and so on ... when the audience first took command of the submarine, nothing happened. Audience members wiggled this control and that, shouted and counter-shouted instructions to one another, but nothing moved. Each person's instructions were being canceled by another person's orders. There was no cohesion. The sub didn't budge.

Finally Loren Carpenter's voice boomed from a loudspeaker in the back of the room. "Why don't you guys go to the right?," he hollered. Click! Instantly the sub zipped off to the right. With emergent coordination the audience adjusted the details of sailing and smoothly set off in search of sea monster eggs.

What is going on here? Well, to put in analytical terms Mr. Carpenter is exercising *cognitive leadership* aiming at *coordinating the complementary* actions of many people through the creation of *common knowledge*. The argument of this paper essentially is that the ability to exercise this kind of leadership is becoming increasingly important as our economy becomes increasingly networked. Let us take a closer and more analytical look at the argument.

## Coordination Problems

Fundamentally, belief management will become important is because firms in a network economy to an ever larger extent will face what economists and game theorists call “coordination problems.” To understand what a coordination problem is about, consider Figure 1a.

XXXXXXXXX *Insert Figure 1 Here* XXXXXXXXX

The 2x2 matrix in figure 1a maps a “coordination game” that involves two “players,” A(rthur) and B(rian), who both have two available “strategies,” here simply called “1” and “2.” They choose and exercise one of these strategies not knowing which strategy the other player will choose and exercise (they are not allowed to communicate). We may associate strategy 1 with choosing one kind of interface standard for an electronic widget that Arthur and Brian are producing, while strategy 2 is associated with another interface standard. Their behavior (i.e., their choice and execution of certain strategies) is interdependent, resulting in the “pay-offs” that are shown in the matrix. The matrix shows that it doesn’t matter which interface standard they choose, as long as they choose the same one. There are thus two (symmetric) (Nash) “equilibria” in this game, that is, situations where neither Arthur nor Brian has an incentive to change their behavior, given what the other player does. If they don’t succeed in coordinating on an equilibrium, they will realize zero profits.

Now let us complicate it a bit; say, one of the standards may actually be better than the other one. This is pictured in Figure 1b. Clearly, the standard associated with Arthur and Brian both choosing and executing strategy 2 is better than that associated with strategy 1. In fact, their interdependent strategies are “complements.” Thus, Arthur picking strategy 2 complements Brian picking strategy 2. So, will they both choose strategy 2, given that they don’t know what the other player will choose? The intuition is that they will, because it is “obviously” in their mutual interest to do so. The problem is that this intuition is

not necessarily correct. In fact, in experiments, although the majority does coordinate on the standard that is associated with the high payoffs, not all players do. Why? Because there is an element of risk: How can you be absolutely sure that the other player is completely rational — and, even if he is, how do you know that he knows that you know that he is completely rational? Back to Figure 1, namely figure 1c. Here the risk element is pretty evident, and larger than in figure 1b. For example, if Arthur plays strategy 1, he gets a payoff of 1 regardless of whether Brian plays strategy 1 or strategy 2. Same for Brian. Intuitively, this makes it hard for them to coordinate on the (2,2) equilibrium. There is experimental evidence that it is, in fact, very hard for experimental subjects in games such as this to coordinate on the “best” (i.e., “Pareto optimal) equilibrium. Most pairs (such as Arthur and Brian) fail to coordinate. Players evidently believe that it is too risky to play strategy 2. Thus, their mutual beliefs lead them to play the inferior equilibrium (1,1).

In these situations, communication often helps a lot; in fact, in the stylized settings of the experimental game theorist, two-way communication makes everybody coordinate on the optimal equilibrium. But still, there are many situations where players for various reasons cannot communicate. Or, there are so many players that communicating is extremely costly, or complex, or both, as in Loren Carpenter’s computer graphics conference where “[a]udience members wiggled this control and that, shouted and counter-shouted instructions to one another, but nothing moved. Each person’s instructions were being canceled by another person’s orders.” Sometimes so-called “focal points” help players coordinate their strategies. Thus, there are certain strategies — for example, about where to meet with your friends — that “comes natural.” But in many situations, there are no obvious focal points. In those cases where pair-by-pair communication is costly or where there are no obvious focal points, something else may substitute, namely the willed creation of “common knowledge” conditions, that is, belief management of a certain kind.

## Common Knowledge and Cognitive Leadership

The argument that common knowledge may be crucial to resolving coordination games and that a number of important real world phenomena, such as rituals and leadership, may exist partly because they create common knowledge conditions was recently put forward by Michael Chwe (2001) and myself (Foss 2001). One way to introduce the argument is to think about what is implied in the notion of focal point that was just mentioned. Why is it that a particular place, say, a bar, may solve the coordination problem that you and your friends confront when you have agreed to meet at a certain time, but unfortunately forgot to make an agreement about where you would meet? In other words, in which way does a focal point influence beliefs? Clearly, sometimes it is as if a focal point works its effects automatically; you “just do it.” However, if asked you may reply that you choose a particular strategy, because you are convinced that the other players, those with whom you wish to coordinate your actions, will also play the focal point strategy. And if you think further about it, you may realize that you also (albeit implicitly) rely on your friends knowing that you know that they will pick the focal point strategy, and that you know that they know that you know, etc. ... that they will pick the focal point strategy.

Thus, something (an event, a fact ...) is common knowledge among a group of players if each player knows it, each one knows that the other players know it, each player knows that other players know that the other players know it, and so on. This may sound too extreme to have any relation to the practical world, for it seems to require that interactive belief making goes on to an infinite degree, that is, that the sequence of “I know that you know that I know that...” is infinite. However, as Chwe (2001) points out, in everyday interaction we often succeed in shortcutting the regress, as it were. The classic example is eye contact which means that “... I don’t have to think through anything; I can simply infer from past experience that usually when we make eye contact, common knowledge is formed” (Chwe 2001: 77). Focal point coordination implies much the same:



When there is a focal point, you don't have to think through anything; you can just play the focal point strategy. And the actions of a charismatic leader (Foss 2001) may have the same effect; for example, think of Kevin Kelly's story of how coordination was finally achieved when "Loren Carpenter's voice boomed from a loudspeaker in the back of the room. "Why don't you guys go to the right?," he hollered."

In a number of industries of the present and the future, increasingly the ability to effect this kind of "cognitive leadership" (Foss 2001) will be a key capability. There are two aspects to this, an external and an internal. The first one concerns coordinating the actions of customers and complementors, such as suppliers (for space reasons I concentrate on consumers); the second concerns the internal organization of firms.

### **Coordination in the Networked, Information-Rich Economy**

It has often been said that our emerging economy is an increasingly information rich one. That is no doubt true. But the flip-side of this information-richness, increasing connectivity, is usually given less attention. Yet, it is everywhere, from the linking of primitive cash-registers into smart inventory management systems to the amazing connectivity we can observe on the internet. Another word for "connectivity" is "network," although connectivity goes way beyond those industries that have traditionally been considered "network industries," such as telecom, operating systems and the like.

Now, as we have increasingly realized networks have their own logics, and to the extent that our economy is becoming more and more networked, theirs is the logic that business will have to obey. A dominant aspect of that logic is *emergence*, that is, qualitatively new, sometimes "smart," phenomena arise from the interaction of many, sometimes "dumb," parts. Of course, this is a phenomenon with which economists have always been familiar, as Friedrich von Hayek (1988) used to point out. Take a billion individually quite limited persons,

let them produce and exchange within a framework of secure property rights — and get the incredible collective intelligence embodied in the market system!

However, what is arguably new is that connectivity leading to networks introduces new dimensions to this old insight. Most notably, it introduces critical mass in a number of ways, notably through “network externalities”, that is, you are more likely to buy a certain product if others also buy it because your utility of the product is an increasing function of the number of others who buy it (think of fax machines). And whereas the “agent” in the economists traditional market model can act in a more or less autonomous manner, this is not the case in a networked economy. Actions become increasingly interdependent; they become “strategies” in our earlier terminology. This means that coordination problems of the kind we have just considered are becoming increasingly visible.

In this situation, it may not necessarily be a good idea to leave everything to the spontaneous forces of the network. I don't have in mind public policy here. Rather, the point is that without some kind of governance, however minimal, agents (consumers and firms) may not be able to home in on the solution to the coordination problem that they prefer. In particular, firms offering products that involve coordination problem features must realize that for such products “... success and failure are driven as much by consumer expectations and luck as by the underlying value of the product” (Shapiro and Varian 1997: 181). While luck cannot be directly influenced, consumer expectations can. In this situation, firms may benefit from taking in the form of assuming cognitive leadership (Foss 2001). In fact, in a networked economy, leading customers, rather than just following them (Hamel and Prahalad 1991), is an increasingly important capability. Here is how it works.

## **Organizing Consumption**

To be able to consume in an intelligent manner, you have to be able to rank the consumption alternatives you confront, process available information,

understand why and how various goods and services produce utility for you, and compute what you can afford to buy. The conventional assumption — certainly in economics, but to some extent also in marketing — is that once given sufficient information in the form of advertising, the consumer can easily and autonomously choose his most-preferred, “utility maximizing” bundle of goods. In the perfect competition model so beloved of many economists, the consumer need to know the menu of available goods, the prices of these goods, his own preferences (which are of course “given”) and his own wealth. Knowing all of the goods in the economy is already mind-boggling. But there is one thing, this consumer doesn’t have to do, namely care at all about the consumption choices of other consumers. He doesn’t need to, since all interaction effects that are not transmitted through the price system are squeezed out of this model. Moreover, he knows exactly how the various goods and services that he may purchase produce utility for him. His “consumption capabilities” (Langlois and Cosgel 1998) are perfect.

In more realistic settings, such as our increasingly networked economy, consumers are not likely to come equipped with such perfect consumption capabilities. Moreover, everything is not somehow mysteriously organized for the consumer (or user) so that all he must do is picking his preferred bundle. Think of how beer drinkers now organize to influence the traditional breweries to produce higher quality beers. Or the role of the hobbyists in the development of the emerging PC industry, and, in general, how much of innovation activity is really a matter of interaction between users and producers. Or think of how much of advertising is really *educating* you as a consumer not only about prices and where to get the goods, but also about how products fit with each other, how *you* will “fit” with all other buyers once you have purchased the product, or how — ironically, and ultimately self-defeating — how you will *not* fit with the other consumers, if you buy a certain product. In all these cases, you are being educated about how consumption pattern may fit into the consumption patterns

of other consumers. Sometimes, this is done in less than subtle ways (“50 million Americans can’t be wrong” etc.), but often it is done in very subtle ways indeed.

A particularly subtle example, discovered and interpreted by Michael Chwe (2001), is Super Bowl advertising. The Super Bowl is the most popular program on network television that occurs regularly. It is likely to be seen by a majority of American households. In fact, any American household is likely to know that a majority of other households have seen it. The super bowl, in other words, is one giant common knowledge generator. Now, if you check, as Chwe did, what kind of products are typically advertised on the Super Bowl transmission, it is products such as the Macintosh, the Discover card, Chrysler’s Neon automobile and various Nike and Reebok athletic shoes. Is there anything special about such goods? Yes, indeed: buying each one of them constitutes a coordination problem. In fact, Chwe talks about “*coordination goods*” as a separate category of products.

Imagine that you are back in 1984. Why does buying a Macintosh constitute a coordination problem for you? Well, the answer is of course that when you consider buying a Macintosh, you want as many others to buy a Mac as well, for reasons of being able to exchange programs, documents, games, etc. This is the network externality. Your problem is that you don’t know whether a sufficient number of other buyers will in fact buy a Mac; you don’t know whether there will be “critical mass.” Enter the Super Bowl transmission. As a potential Mac buyer, at least this will make you know that other potential Mac buyers have seen the Mac ad. In fact, this goes for *any* potential Mac buyer who has seen the Super Bowl transmission. In other words, common knowledge is established.

Now, coordination goods may possess this quality for various reasons. Thus, in some cases, you are really only interested in connectivity and a large network for purely technical reasons. In other cases, such as those of Nike or Reebok athletic shoes, technical complementarity has very little to do with your purchasing decisions. Rather, consumers purchase such goods because they are interested in having others form certain beliefs about them, for example, that

they, too, are members of a certain in-group. Thus, consumption may in itself carry information and reduce uncertainty. Or, consumers are having their preferences — their ranking of the goods they can purchase — influenced by the number and character of other purchasers, quite apart from considerations of expediency. Purchase may be purely a matter of snobbism. However, in all these cases, consumers face a coordination problem. And in all of these cases, establishing common knowledge may be key to having the consumers solve their coordination problems — and to firms having success. Some firms, if certainly not all, are acutely aware of this. A striking example was an increasingly squeezed WordPerfect filing a court complaint against Microsoft to make the court stop the Microsoft claim that Word was the globally most popular software for word-processing purposes. Another example is Netscape's Navigator campaign which revolved around slogan, "Netscape Everywhere."

One of the implications of saying that the emerging economy is becoming increasingly networked is that products and services with the above characteristics will constitute an increasing part of the total of the goods that is on offer in the economy. This goes for OEM markets as well as consumers' markets. Therefore, firms in the network economy need to understand the logic behind networks. The implications for business of the networked economy has certainly not gone unnoticed. Carl Shapiro and Hal Varian's masterful *Information Rules* (1999) is testimony to that. However, quite a number of those implications have not been unfolded. In particular, the importance of influencing beliefs have not been seriously investigated. Here are some of those implications:

***Understand the nature of your product.*** To be sure, not all goods are in the nature of coordination goods. For example, paper clips or baking soda really aren't. However, an amazing number of goods are in actuality coordination goods, even if you don't always realize this. An example is oil for your car. Another one, perhaps more obvious, is paper for your copying machine. There isn't necessarily anything fancy about coordination goods. However, although

car oil and paper for copying machines are indeed coordination goods, they are also goods for which standards are fairly well established. This means that it is likely that your investments are likely to be substantial if you consider introducing a new standard for extremely well-established products, although it can be done, as the example of the DVD suggests. In some cases (e.g., copying paper) you may have to introduce a whole new system (e.g., copying machines, after sales service, etc.) to compete with existing suppliers. This is in most cases a hopeless task, simply because you are up against too much “installed base.” You have a better chance of accomplishing successful belief management in connection with launching coordination goods that are genuinely new and which are not necessarily complementary to a lot of other products. An obvious example is athletic shoes. So are movies.

*Understand the nature of your audience.* This is not quite the same as understanding the nature of your product, although to a certain extent they are two sides of the same coin. What is meant is that you need to understand their motives for buying your products before you can hope to be able to manage their beliefs. Consumers who contemplate buying a product for snobbish reasons need to be talked to in a way that is different from the way in which you talk to consumers who contemplate buying a product because they hope to achieve technological complementarity with numerous other consumers. Louis Vuitton doesn't use Super Bowl advertising.

*Simplicity is of the Essence.* Karl Weick (1979: 164) argued that as a general matter, managers engage in processes of “enactment,” whereby they “... construct, rearrange, single out, and demolish many ‘objective’ features of their surroundings. They unrandomize variables [and] insert vestiges of orderliness.” Enactment, in Weick's description, is essentially making order by means of *simplification* that helps agents to construct shared understandings with which they can interpret reality and act in a cohesive way. While Weick had organizational action in mind, our argument so far implies that firms should try

to enact their external environment, not just for themselves, but just as much for their customers. One important means of trying to establish common knowledge is indeed through emphasizing *simplicity*. A classic example that pertains to a coordination product is movies, specifically the very different ads for Steven Spielberg's *Jaws* and Robert Altman's *Nashville*, both from 1975 (Chwe 2001: 81). While the *Jaws* poster showed little more than a swimming (and naked) woman and a shark, the *Nashville* poster showed the whole 24 characters cast emblazoned on the back of a blue denim jacket. The simpler poster is likely to be noticed and remembered by many more than the more complicated poster. It is therefore more likely to help creating common knowledge.

**Use Waporware.** One way in which you may influence beliefs in your market place is through aggressively engaging in pre-launch tactics, such as massively announcing new soon-to-be-marketed products. The interesting thing about this tactic is that it not only may help you gain lead time in the process of building critical mass for your coordination good; it may also help you deter your competitors.

**Get Allies.** Use alliances with other (complementor) firms to credibly signal that your product will become or already is popular. For example, Sun engaged in such belief management when it ran full-page ads in support of Java that listed all participants in the Java coalition (Shapiro and Varian 1999: 276). Another example is the promotion of Ethernet by the DIX (Digital, Intel and Xerox) alliance. However, the alliance signal is not restricted to cases involving technological standards. In any situation involving a coordination good, allies may help you ignite the positive feedback that means increased revenues for you.

## Common Knowledge and the Organization of Firms

Not only is the emergence of the networked, information-rich economy bringing about profound changes in the external environments of firms, it has also strong implications for how managers and owners decide to organize firms (see

Tapscott 1999). Thus, traditional “Taylorist” authority in the sense of detailed order-giving and control is waning in importance, as knowledge workers increasingly control strategically important assets, have attractive exit options, and are anyway increasingly difficult to monitor and control, because of their expert knowledge. Traditional hierarchy and supervision is giving way to empowerment, delegation, and autonomy and disintegrating into molecular team-based units.

However, firms still often need to make concerted actions. They also need to share knowledge, for example, for the purpose of making such concerted action. It is not immediately clear how firms can fulfill these aims at the same time that they are restructuring their organizations towards much more decentralized structures. Corporate cohesion seems threatened in the face of the centrifugal forces of decentralization. As a consequence of this, more and more firms are working not only on installing shared value bases, but also at knowledge management exercises that are intended to compensate for (and more) those communication channels that decentralization may have demolished. However, they often fail to do it in the right way. Insights in coordination problems and common knowledge show us why.

Although corporate value bases are all the rage in these years, many, many firms communicate these value bases in a surprisingly naïve manner. Often the initial training sessions is the only time during her career in which an employee is explicitly exposed to the corporate value base. Such an exercise is, at best, useless. For corporate value bases to help assisting in internal coordination tasks, they have to be in the nature of what Danish marketing executive-turned-guru, Jesper Kunde (1997), strikingly calls “corporate religion.”

Though perhaps a bit tasteless (at least to the believer), the religion metaphor is nevertheless descriptively most apposite. This is because a living religion is not the Holy Scriptures *per se*, but is the lived practice and the feeling of community implied by and revolving around those scriptures. Most religions



thus consider active participation in the community, including participating in services, essential. Common knowledge helps us to understand why this is so. Thus, common knowledge is best established through being physically present at the same location and, if possible, by having eye contact. Rituals perform much of this function (Chwe 2001). Corporate value bases is not something that only should be communicated from a HRM manager to a prospective or new employee; it is something that is meant for large-scale relatively frequent (perhaps yearly) gatherings, involving as of the firm's employees as possible, allowing for eye contact and other aspects of bodily language. This is the way to maximize the chances that any employee knows that any other employee knows that any given action is or is not in conformity with corporate values, with "the way we do it 'round here"; something which we have seen is a great assisting force in resolving coordination problems.

In this connection, note that while Taylorist authority may indeed be waning in the information-rich, networked economy, this is not the case for what Max Weber called "charismatic authority." The successful charismatic leader is not only the one who makes each individual believe in the real existence of a common purpose; he also succeeds in making all those he lead believe that everybody believes in this common purpose. This kind of authority is certainly a source of cohesion, also in those firms that adopt radical decentralizing exercises. Perhaps it is the only source left.

Another common error that a focus on common knowledge helps to expose relates to contemporary knowledge management exercises, in particular to the tendency of thinking that technology can replace face to face contact. This line of thinking has become influential, because it seemingly helps to drastically cut travel budgets, reduce the opportunity costs of meeting activity, etc., because knowledge sharing technology apparently helps people to share knowledge without having to be in the same place. As Nancy Dixon (2000: 4) laconically observes, "[a]lthough this sounds reasonable, it unfortunately just doesn't always

work out that way.” She finds that the knowledge management systems she studies unavoidably gravitates towards a mix of technology and face-to-face meetings. In her story, one of the causes of this is that much knowledge is tacit, and hence not directly given to transfer through existing knowledge management technologies. A common knowledge perspective suggests a different explanation. Thus, if knowledge is placed in a central “storehouse,” employee A may know that a particular piece of information is located there, for example, because he himself supplied it. He also knows that all other employees may retrieve it. But he doesn’t know whether they retrieved it, that is, whether they, in fact, know. And even if he guesses that they know, how does he know that they know that he knows. Well, he does not. Only more direct contact, and preferably direct meetings, can guarantee this kind of common knowledge. The implication is that knowledge that it is crucial that all employees know and where coordination requirements necessitate that all know that all know should not be disseminated through conventional knowledge management techniques.

### **Conclusions: Creating Value in a Networked Economy**

I began by noting that beliefs have been given scant attention in the strategy discipline, a rather surprising fact, given their obvious importance. Strategy theorists have apparently been content to leave the issues of belief management to marketing specialists, organizational psychologists, etc. Although this paper represents only a small first stab at the issues, its messages are hopefully clear. To repeat some of the main messages.

*Connectivity means coordination problems.* I have argued that as we enter an economy that is increasingly, information-rich and networked, coordination problems will become increasingly prevalent. Often these coordination problems arise because of network externalities and critical mass effects — phenomena that have often been discussed in connection with IT markets. However, these coordination problems are becoming ubiquitous, and not just limited to IT

markets, as connectivity becomes equally ubiquitous. For example, it was argued that they arise for certain classes of consumer goods.

*Nothing mysterious about it.* Influencing beliefs to your advantage is not a mysterious process *per se*, although it may look that way. Theory tells us that when many persons are confronted with a coordination problem, leadership may be exercised by means of creating conditions of common knowledge. For some classes of products and services — what was called “coordination goods” — building critical mass is crucial. Building that mass may require belief management amounting to the creation of common knowledge.

*Gaining advantage.* There are numerous ways in which you may influence beliefs to your advantage. This goes both for influencing your environment and for influencing the people in your organization. With respect to influencing your environment, you can gain advantage by more accurately understanding the coordination aspects of the products and services you offer and the motives of your customers. Various existing marketing tactics are cast in a different light and reinterpreted in a common knowledge perspective as sources of advantage. With respect to the issue of influencing people in the organization, a common knowledge perspective suggests the importance of building a true “corporate religion,” not just a fundamentally non-committing value base. And it tells you what kind of knowledge may be subject to knowledge management exercises and which kind of knowledge is best communicated through face-to-face contact.

The common knowledge perspective is a new perspective to strategic management. It forges link to strategic marketing and to human resource management. Yet, it is consistent with existing approaches. For example, the ability to influence beliefs in a way that favorable to you is, of course, both *valuable* and *scarce* resource. Not everybody are equally good at it. It is also likely *costly to imitate*, although sometimes some belief management tactics may be imitated. For example, after Apple had launched the Mac in 1984 at the Super Bowl transmissions, numerous other producers of coordination goods followed

suit. Thus, the common knowledge perspective is entirely consistent with resource-based logic (Barney 1991) and in fact helps to bring that perspective into the contemporary knowledge and information-based economy.

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**Figure 1:** *Coordination games*

		B	
		1	2
A	1	1,1	0,0
	2	0,0	1,1

1a: Symmetric

		B	
		1	2
A	1	1,1	0,0
	2	0,0	2,2

1b: Asymmetric

		B	
		1	2
A	1	1,1	1,0
	2	0,1	2,2

1c: Assurance

