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**A World of Standards
Standardization as
a Social Form**

Nils Brunsson

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SCORE
(Stockholm Center for Organizational Research)
Stockholm University
S-106 91 Stockholm
Sweden
Phone int+46 8 736 97 41
Fax int+8 16 49 08
E-mail nils.brunsson@hhs.se

Standardization is a major feature of modern society. Not only products, but also production processes, management, accounting, etc., are objects of standardization. Standards are directed at individuals, organizations and states.

Standards constitute a particular kind of rules: they are explicit and they are, at least formally, voluntary. These aspects distinguish them from other rules, such as norms, which can be implicit rather than explicit, and directives that are defined as explicit and binding. Standards are a kind of general advice directed at many. This definition of standards includes what is generally called standards in the practical world, but it also includes phenomena that are not generally called standards in practice; standards are produced not only by so called standards organizations (such as ISI or CEN) but also by legislators (optional legislation), authorities, international organizations (such as UN or OECD), management gurus, academicians, and writers of books on how to behave or manage your marriage.

Standardization is defined as the process of producing standards. The standards produced may or may not be adopted by actors, individuals, organizations, or states. Standardization and the adoption of standards may or may not lead to more homogeneity among actors.

Standardization is a fundamental form of co-ordination, control, and choice in society. In this paper I shall compare standardization with other basic forms: namely, markets, hierarchies, and normative communities. I shall show that the different forms sometimes occur together, but that they may also represent alternatives. The absence of one form creates a need and opens the way for another; the extent and range of standardization thus depends on the prevalence and strength of the other forms. Finally, I shall argue that standardization is favoured by two major contemporary trends, individualization and globalization. I shall begin by comparing the different forms.

Markets, hierarchies, and standardization

Modern society is possible because human action is highly co-ordinated. We can cooperate, interact, and communicate, even when we are far apart. Hierarchies and markets are usually cited as the principal forms of social co-ordination; they prescribe procedures for human interaction. In a hierarchy, such as an organization or a nation-state, an authoritative centre can issue rules or orders that co-ordinate people's actions. On markets buyers and sellers co-ordinate their activities by exchanging goods, services, and money. And what sellers offer and what buyers demand is co-ordinated, at least in the long run and to a certain extent.

Standardization is a third form of co-ordination in addition to hierarchies and markets. It is a kind of procedure which establishes similarities. Standardization is just as fundamental as hierarchies and markets. Without standardization the world would look quite different, and co-ordination would be much more difficult. Standards facilitate contact, co-operation, and trade over large areas and even throughout the world.

All three forms of co-ordination - hierarchies, markets, and standardi-zation - may also be viewed as forms of control, as ways of guiding the behaviour of various actors. In hierarchies like organizations or nation-states, the leaders control or influence what members or citizens do or may do. On markets buyers and sellers influence each other. Standards, too, affect what people do. As with hierarchies and sometimes with markets, standardization can also be used expressly for control. Standardization may be a way to influence individuals, organizations, or nation-states to do their work in a certain manner, accomplish a certain result, report in a certain way, etc. For example, there are standards for tolerable environmental impact, for good quality, and for acceptable accounting practices.

Hierarchies, markets, and standardization may also be considered forms that affect the choices of actors; they may be used to explain why actors behave in a certain way. In organizations, much of people's behaviour can be explained by the fact that they work in an organization with certain tasks and traditions, and with a certain management. On markets, actors' behaviour may be partly explained by their adaptation to supply and demand. And sometimes what actors do is explainable by the fact that they follow standards.

Hierarchies, markets, and standardization are thus all forms of co-ordination, control, and choice in society. They may be said to constitute fundamental societal institutions, or rather a kind of meta-institutions. Their universal and general character is the reason why we have called them social forms rather than institutions. Like other institutions, these forms include defined patterns of action, rules, and beliefs (Berger and Luckman 1966). The patterns of action are well known and highly legitimate. If we claim that we are acting consistently with one of the forms, most people will understand what we mean. It is also highly legitimate to act in accordance with the forms, provided we do so in the right situation. Moreover, the forms prescribe rules of behaviour which appear as laws or otherwise. The forms include specific beliefs - for example, as to who the actors are and what they want and do. These beliefs may be more or less consistent with actual practice. There are also ideas as to why the forms are justified.

Hierarchies, markets and standardization are highly rationalized - they are usually defended by reference to their allegedly desirable consequences, rather than by reference to tradition and long-established custom. Hierar-

chies, markets, and standardization provide co-ordination and control on the basis of agreed procedures, and in the case of standardization on the basis of agreed names, product designs, etc. as well. Co-ordination and control do not arise from agreement on values. Actors do not need to share common values to interact on markets or in hierarchies, or to follow the same standard - unlike the case of normative communities, which we shall discuss later.

Differences

Hierarchies, markets, and standardization are thus similar in several respects. But there are also important differences among the three forms.

On markets parties interact by exchanging goods, services, and money. A fundamental feature of hierarchies is that their leaders ultimately have the power to lead by direct order, by interdiction, or by mandatory rules - directives. What standardizers can resort to is standards - they can offer advice of a general nature to others.

Standardization, like markets but unlike hierarchies, leaves the individual actor free, at least in a formal sense. In principle we are not required to enter into a particular market relationship and thus to accommodate to another party; nor are we required, in principle, to observe a particular standard. We consider ourselves free to buy and to attempt to sell what we like, and we should be free to follow whatever standards we want. We are equally free to issue standards. By contrast, in hierarchies the members may, in principle, be forced to do as the leadership says. And only certain people are empowered to issue directives and orders. These conditions have important implications for how the forms are given legitimacy, for how particular actions are legitimated, and for how responsibility is allocated among actors.

All forms of co-ordination and control require strong arguments in their favour if they are to be accepted in a world of many actors - e. g., individuals who believe in their independence and set great store by it (Brunsson 1996). Hierarchies customarily claim legitimacy on the somewhat shaky ground that their leaders are selected in a manner that entitles them to tell others what to do. The claim may be based on the right of ownership, or on democratic principles, with the governed having the opportunity to influence the selection of their rulers and also to debate and protest. Legitimacy may be claimed for the market and standardization on the ground that in principle these forms are voluntary. Defenders of markets usually maintain that all market actors may influence their terms of exchange and that no actor is master over another. And the voluntary nature of standards is one of the principal arguments in favour of standardization.

It is also claimed that standards are developed for the people who are going to observe them, just as products are said to serve their potential purchasers. This argument is based on the voluntary nature of complying with standards and of buying goods, and it gives standardization and markets an appealing face. Another common argument is that standards reflect what is best or at least desirable, that they are objectively appropriate or have been found by experts to be the best solution (Guillet de Monthoux 1981, Ch. 7).

Moreover, the arguments in favour of particular measures or items differ for the three forms. Here, too, compulsion and voluntary acceptance lead to different strategies for claiming legitimacy, making these strategies different in hierarchies than on markets or for standardization. When people are supposed to obey leaders in hierarchies, there is less need to demonstrate the benefit of what people are supposed to do. Instead the leaders giving orders or directives must enjoy a high degree of legitimacy. If orders or directives are to be accepted, the issuer must be considered to have the right to give orders of the kind in question.

Generally, if a voluntary course of action is proposed, more persuasive arguments are required to support the proposal itself than to give authority to the person advancing it. Outside of hierarchies virtually anyone is entitled to propose anything, but persuasive arguments are usually required to win acceptance - compulsion cannot be used. Those offering something voluntary are more readily accepted than what they are actually offering. This point becomes particularly clear when many take advantage of the opportunity to offer, since "competition" often arises. In open societies many are free to offer their views to the mass media, though they will have to argue quite convincingly for anyone to agree with them. Products sold on a market usually need much more advertisement than the producer himself. The same is true of standards - the standardizer does not need the same legitimacy as the legislator, for example. But standardizers who really want their standards accepted must argue that the standards are beneficial for users.

Allocation of responsibility

The three forms allocate responsibility differently. In Western culture responsibility is given to the one who is considered influential, who has caused something to occur by his own free will. A hierarchy appoints the leaders and gives them power; leaders therefore bear most of the responsibility. When leadership issues directives or orders, its responsibility is demonstrated very clearly, but a hierarchy can also make leaders responsible when these have not acted. In states and organizations, governments or boards of directors may even be held responsible for events which they knew nothing about.

On markets and with standardization, responsibility is allocated differently. Anyone who purchases a good or follows a standard bears a large portion of the responsibility. Buying goods and observing standards is "voluntary" - it is the adopter who makes the choice. Laws may impose some responsibility on sellers in certain situations. For example, sellers may be held legally liable for products which prove dangerous after purchase - the customer is presumed to have had insufficient information to make the purchase fully of his own free will. Less frequent is legislation which holds standardizers responsible for having given bad advice.

It is difficult to hold standardizers responsible, even if we would like to - they provide general advice for certain actors on certain occasions, and it is easy to claim that an adopter has misunderstood who he was or the nature of his situation. The case of an expert giving advice in a particular situation is different, he is given more responsibility. Similarly, someone who recommends a specific good to a specific customer may sometimes be charged with a certain responsibility.

When standards govern procedures and functions rather than the specific design of a product or process, the standardizer's responsibility is even more limited. He has not specified what must be done, or what the result is to be, but has left these to the one following the standard.

The differences in allocation of responsibility are also reflected in the extent to which the forms generate complaints, as well as in who complains and where the complaints are directed. Markets and standardization generate fewer complaints than hierarchies. In hierarchies the trouble is someone else's fault, whereas market actors or those who follow standards have themselves to blame. Complaints are particularly frequent in hierarchies where membership is compulsory, such as nation-states, since dissatisfied members lack the option of resigning. On markets and with standardization the exit option is normally more realistic; it is often easier for a dissatisfied party to stop buying the product or observing the standard, rather than to complain. It is usually more difficult to resign from an organization with which we are dissatisfied. Trade unions are generally stronger and more powerful than consumer organizations, at least in countries where it is difficult to change jobs. And who has ever heard of a resistance movement against poor standards?

When fewer complaints arise, less information emerges about what is wrong. On markets sellers can see that they are losing customers, but they often find it hard to know why. Sellers run the risk of having only satisfied customers - the dissatisfied ones do not come back. Here the seller is even less likely to receive complaints. He will then miss information that could have helped him to attract more customers (March 1981). There is a similar risk that standardizers will not learn very much about what is wrong with their standards or how to improve those standards and others in the future.

Even though standardization places most of the responsibility on the one choosing to follow the standard, that responsibility may have its limits. Our responsibility may be less if we observe a popular standard than if we go our own way. A company that follows "generally accepted accounting principles" is less likely to be liable for misleading financial statements than if it had devised its own accounting principles. There appears to be a similar "safety in numbers" on markets - if everyone sells toxic goods, the responsibility of the individual seller is probably less than if he were the only one to do so.

Support in legislation

Both hierarchies and markets are regulated by extensive legislation which for the most part facilitates their functioning. Various forms of organizations and the rights and obligations of their leadership are established by law. The nation-state has a constitution. The rights and duties of buyers and sellers are regulated in laws applicable to purchases, contracts, etc.

There are no laws regulating standardization in itself; anyone may issue standards. National standards organizations often receive financial and moral support from governments, but they have no monopoly - for example, groups of industrial companies have often threatened to implement standardization on their own, and have sometimes done so. Only if the standardizers also occupy another role - such as that of professionals, of organizational leadership, or of market actors - can the legality of their standards be tested and complaints have legal consequences: a physician who publishes advice on how to commit suicide or murder may run into trouble. A salesman whose instructions for his product lead to an accident may face legal action. The management of an organization whose recommendations endanger the health and safety of its employees also risks prosecution, or complaints at the very least.

General and distanced

Standards also differ from hierarchies and markets in another respect: there is co-ordination and control only at a general level - many people are to act in the same way in many situations. For standards are a form of rules - standardization is not a method for deciding a particular case on its own merits. Even if large hierarchies and markets may also treat a great number of similar cases alike, at least in theory it is always possible to fit the solution to the situation, to act on a case-by-case basis. In a hierarchy orders may apply to a particular individual and a particular situation. On markets, products and prices may differ depending on the occasion and the customer. Market transactions normally take place as direct interaction between specific buyers and sellers.

By comparison with hierarchies and markets, standardization is a more indirect form of co-ordination and control, exercised through large, impersonal systems rather than direct interaction. Standardization is done at a distance in time and space from both the people and the situations concerned.

Foundation in science

Finally, hierarchies, markets, and standardization also differ in the extent to which they are related to science. Modern forms and institutions are reflected in and partly constructed by modern science. Different academic disciplines concern different institutions - for example, psychology relates to the individual, economics to markets, political science to the nation-state, and organization theory to organizations. These disciplines help to legitimize their respective institutions, to create and spread knowledge about them, perhaps even to call them in question, but they also help to develop them further, to increase their complexity.

Standardization as a social form is much less rooted in science, despite its considerable practical importance. This fact seems to be reflected in how standardization is treated in the mass media: we would maintain that standardization is given less attention and is discussed in a much less complex way than markets and hierarchies.

On the other hand, it is often argued that particular standards are based on scientific evidence. A standard is supposed to incorporate what is best, and often that question is ultimately decided by the weight of scholarly authority. Actual academic support for a standard may be tenuous. Many contemporary administrative standards reflect administrative theory from the turn of the last century rather than the current state of the discipline (Chapter 2). Organizational directives and market transactions generally need little if any reference to a foundation in science.

Principle and practice

Hierarchies, markets, and standardization are thus distinctly different forms of co-ordination, control, and choice; each has its own particular features. These fundamental differences are usually cited when the forms are discussed, questioned, and defended. The different features belong to our institutionalized belief systems, and they are often incorporated into the rules for each form. It is less certain that they are part of our institutionalized patterns of action. In practice, social forms, like other institutions, may function somewhat differently than in theory (Hernes 1978, Brunsson 1996). In many units considered to be hierarchies, such as organizations and nation-states, control by the top may be limited; in fact, top-down control may be only nominal, with actual control being exercised from the bottom up or from outside (Scott 1998, Ch. 12; Evans 1995). In addition, their leaders may not in fact be appointed according to

the principles, democratic or otherwise, cited to legitimize the hierarchy. As for markets, there are situations where market power is so highly concentrated that any notion of voluntary participation by certain actors is an illusion (Persson 1992).

Similarly, standardization in practice may differ from standardization in principle. The degree to which standard is voluntarily accepted may turn out to be quite low. Certain standards may be generally considered so obviously superior that even someone who doubts their value is virtually forced to adopt them. Some standards must be followed so that necessary interaction can take place. Also, standardization may not accomplish what its proponents say it should. The process of standardization may produce a standard which is clearly suboptimal. Nor do standards always lead to better co-ordination - if only a minority observes a particular standard, differences may be accentuated, thus making co-ordination more difficult.

Normative communities

As has been mentioned, hierarchies, markets, and standardization may provide co-ordination and control even when the actors do not share the same values. But co-ordination, control, and choice may also be achieved through shared values, in a normative community; this form has sometimes been termed the clan (Ouchi 1980). Norms, as defined here, are a kind of rules. Like other rules - directives and standards - norms may control actors and their choice of actions. Norms also co-ordinate; if a number of individuals share the same norms, they may find it easier to work together to attain common goals. In societies or situations where many observe the same norms, it should be possible to achieve co-operation and co-ordination with less resort to the more procedurally oriented forms, markets, hierarchies, or standardization. There is less need for markets, hierarchies, or standardization in a family community based on well entrenched shared norms than in a multicultural city.

To a greater or lesser degree, a locality - be it a village, a province, or a nation - may show characteristics of normative community. A normative community may also consist of groups of blood relatives, such as nuclear or extended families. One prominent example of a contemporary normative community is the profession.

For outsiders, some normative communities do not possess the same unquestionable legitimacy as hierarchies, markets, and standardization. The normative community of a village, a nation, or a family is difficult to justify rationally; legitimacy is based rather on factors like tradition, which have little convincing power in modern times. This does not apply to professions, which are a conspicuous example of a more modern system of common values. Today's professions also have strong ties to science

and the academic world (Abbott 1988). To a large extent, contemporary professional norms are created and instilled at universities.

Norms are rules which we have internalized - they need not be explicit for us to be aware of them and accept them. Usually they are both voluntary and compulsory, though in different ways. Most norms are voluntary in the sense that we willingly observe them. While we know that we have not created them ourselves, we often find them correct and see no difficulty in conforming; they do not appear to have been forced upon us. Norms are strongly internalized - we see them as a part of ourselves or at least of our identity as professionals, family members etc. On the other hand, we would have a hard time denying our norms. If we stopped observing them, we would quickly discover their mandatory nature. In these respects norms differ from both directives and standards. Directives and standards appear to come from outside us, not from within.

Norms differ from the other forms in additional ways. It is easy for leaders of hierarchies to issue directives, and for standardizers to promulgate standards. Whether anyone follows them, or is even aware of them, is another matter. Establishing norms is generally much more difficult. By definition a norm must not only be accepted but also internalized. It requires a certain upbringing or training. In addition, norms usually have a certain stability - once we have succeeded in influencing norms, they may be hard to change later on.

Mixed forms

Hierarchies, markets, and regulation through norms are all forms for exercising co-ordination, control, and choice. Therefore, they may be considered alternatives to standardization. In many situations they are actually alternatives; co-ordination, control, or choice is possible through one of the forms alone. For instance, a standard may influence actors to behave in a certain co-ordinated fashion without their being affected by the other forms. For example, the standard railway gauge of 1435 mm has become widespread among railway companies, despite an absence of market relationships, a common hierarchy, or common norms reflecting a shared preference for this particular gauge. Similarly, certain hierarchies and market relationships, or at least aspects of them, are not influenced by standardization.

In practice, however, the forms usually appear together and influence each other. Organizations and states may include market solutions, and what we call markets may in practice include some hierarchical aspects. And standardization is often an ingredient in existing organizations, states and markets. Moreover, all three forms may influence jointly held norms, and be influenced by them. Sometimes the various forms are complementary and mutually reinforcing; sometimes they conflict.

Hierarchy and standardization

Organizations and states often use standards for co-ordination, control, and choice. By following highly legitimate standards imposed from outside, they can avoid making their own decisions. The task of governing becomes more limited in scope. It may also become easier, when management can refer to standards, not just to its own authority; for instance, organization members may more readily accept management by objectives during periods when this is a popular standard than during periods when it is not. Large industrial companies may also issue standards for their own operations. In recent decades the European Union has been actively using standards in addition to directives as a means of control. In standard-based organizations (Brunsson and Jacobsson 1998, Ch. 5), we find a mix of hierarchy and standardization.

Some standards become incorporated in directives. For example, the use of quality-assurance systems in Swedish medical care, and of management by objectives by Swedish municipalities, is now required by law.

Standards may also be based to a varying degree on directives - the two may be intermingled to some extent. For example, standards should be adapted to existing law (Stuurman 1995). The European Union may be said to require standardization by directive. Standards organizations use the same arguments as more traditional hierarchies when seeking to legitimize standards; for example, they claim that the standards have been established through a fair and representative procedure. When the European Union leaves a field open to standardization instead of issuing directives, the standards readily assume some of the Union's authority, so that the difference between directives and standards tends to diminish: the standards lose much of their voluntary character.

Markets and standardization

The European Union uses standardization in order to promote the development of the common European market. Standards are important on most markets. Standards may facilitate market transactions by making it easier to obtain information on the goods exchanged or on the opposite party, thus reducing transaction costs. If the same standard applies in many countries, more companies may be in a position to compete. Moreover, there are greater opportunities for mass production. This is the kind of reasoning which the EU is using to justify its efforts to establish common standards for the entire European market.

The absence of common standards may even prevent markets from arising. For example, national markets may be tightly closed if products have to be very particular because of special legislation, particular market

mechanisms, or national standards. This poses an obstacle to a common international market. Such conditions made the European Union decide to use common European standards to promote the common market.

In addition, there are markets for standards. For example, a standard may be purchased from a standards organization, and if help is needed in interpreting and introducing standards, or certifying that they have been adopted, such services may be obtained, at a price, from organizations or individuals.

Normative communities and standardization

Norms, too, are often found together with markets, hierarchies, and standardization. For example, market transactions may be facilitated if the actors share and respect the norm that condemns cheating. Organizations and nation-states whose members share certain fundamental norms are easier to manage or govern. Professions may sometimes create standards for others. For example, physicians may publish books on self-care.

Standards are usually based in part on norms - standards which differ too greatly from norms are not readily accepted. Administrative standards are based largely on shared ideas and norms for how organizations should function (Furusten 1998). Standards may help to establish and maintain norms. For instance, budgeting was introduced as a standard for companies in the 1960´s; now it is a strong norm, something most administrators take for granted (Wallander 1994).

Standardization as a problem

That the different forms are found together does not necessarily mean that they complement each other in a harmonious way. They sometimes conflict, with one form having undesirable effects on another.

For individual actors in hierarchies and on markets, for instance, standards are not always beneficial, but may become a problem instead of a solution. Although leaders of hierarchies may sometimes design standards to suit their own purposes, they must often accept a number of externally determined, formally voluntary standards which they cannot actually influence. Examples may include technical standards calling for products which management might not find most profitable to manufacture, accounting standards which measure profit differently than management would prefer, or administrative standards which lead to more bureaucracy and increased costs.

On markets standards may favour some actors to the disadvantage of others. A particular standard may be better adapted to the hardware, know-how, and traditions of one manufacturer than those of others. Once a standard has become established and accepted, it is very difficult for new

and better ways to win market approval. Thus, standardization may not only promote but also inhibit competition and innovation.

Standardization may undermine hierarchies. If standardization and standards are popular, the leadership may have a hard time prevailing over credible standardizers and standards. If organizational management takes a position against a popular standard of decentralization, it may have an uphill battle on its hands.

Similarly, standardization may undermine markets. If market solutions to environmental problems, for example, are inferior to proposed standards, legislators and others may reject markets as a form of control in this sphere.

Standards may undermine normative communities like professions by offering solutions contrary to the values of the profession, though attractive to outsiders. Examples might include administrative standards, which go against doctors' professional norms, but are nevertheless intro- duced into health care by administrators. Such standards may complicate professional health care and increase its cost.

Forms as alternatives

In the previous sections we have demonstrated that standardization is a form of co-ordination, control, and choice, as are hierarchies, markets, and normative communities. We have shown further that these forms - while sometimes complementing each other - may also clash. Often they are alternatives, with one form rarely found where another is already established. Thus, the frequency of one form is inversely correlated with the frequency of the others - both the need to use a form, and the possibility of doing so, diminish if one or more of the other forms are already present.

Which form will predominate in a particular context may depend on the special characteristics of each form and how well it fits the situation. The use of standardization is at least partly explainable by the need for it - if other instruments of control and co-ordination are not available, standards will be in demand. But a need is not sufficient; it must also be possible to create and follow standards. When are we likely to find standardization rather than hierarchies, markets, or normative communities? This question will be discussed in the following section.

Instead of hierarchies

If hierarchies and standards are alternatives, standardization is more likely if there is no hierarchy. National standards organizations have usually been founded with the backing of government and large companies; however, their mission has been to develop standards for domains of industrial activity which were not regulated by law but where it was also considered undesirable to give individual companies free rein. The growing importance of global standardization in recent decades may be due to a vast need for global co-ordination in the absence of a strong supreme global hierarchy; there is no world state. With no hierarchy to control and co-ordinate global technical systems, there will be a need to standardize.

The absence of a hierarchy does not only create a need, but also an opportunity to standardize - there will be little competition from directives. Globally oriented standardizers seldom risk clashes with binding international agreements. Where there is a hierarchy, the scope for standardization is much more limited. There would be substantially less room for a vast array of administrative standards in a strong hierarchy which issued directives for all organizations in a society. In many countries laws stipulating the basic requirements for a joint-stock company prevent standards from emerging in this area. Also the scope for generating standards is more limited within individual companies than outside of them, and greater when we have many small organizations instead of a few large ones.

Standardization is also favoured when hierarchies are weak. When hierarchies cannot resort to directives or orders, the need and opportunities for standardization increase. The leadership of nation-states or organizations may lack the authority or legitimacy to exercise control through directives and orders; subordinate units may consider themselves so independent that they need not comply. Hierarchies with few common norms or with conflicting norms - examples include many political bodies - may also find it difficult to exercise control through directives and orders, and easier to use standards. If there is conflict among the leaders, they may find it harder to agree on mandatory directives than on voluntary standards. Directives and orders also entail greater responsibility than standards; unwillingness or inability to accept responsibility may be yet another reason for choosing standards rather than directives and orders. While not totally preventing nation-states or organizations from issuing directives and orders, these factors may restrict their capacity to do so in all areas and situations.

The European Union (EU) appears to be illustrative in several respects. The EU has limited authority, since the members of the organization are nation-states, which by tradition guard their independence. The EU rules for reaching decisions make it difficult to reach a consensus, and the

systems of accountability are poorly developed (the so called democratic deficit). It is understandable that standardization is important in the EU.

There are also cases where standards play an increasingly important role in nation-states. So called deregulation of activities in the public sector has limited the scope of central directives - there is now less central government hierarchy. Instead, standards have become more common. In Sweden the role of a number of authorities has become more advisory than controlling. One example is school administration, where the national board of education, with a predilection for directives, was replaced by an office of education, with largely an advisory role; in several instances the office has explicitly refused to issue directives (Jacobsson and Sahlin-Andersson 1995). Advisory bodies derive their authority from their expertise, rather than as an arm of official power. This development is concurrent with a new self-image of schools and other organizational units as independent actors rather than part of the larger government hierarchy, and with their ensuing unwillingness to take orders from above.

Standard-based organizations, such as the EU, may be considered a compromise between hierarchy and standardization. Many standard-based organizations are associations of independent organizations. Their members have committed themselves to following certain standards which they have participated in setting. They are free to leave the organization at any time. Thus, they have not established a joint superior organization of a traditional nature, with a strict hierarchy and a division of functions among members. The independence of the member organizations makes standardization the principle of control, and standardization as a principle permits the member organizations to preserve their independence.

As we have previously mentioned, standards need not in fact be completely voluntary; indeed, they may be fairly binding. And directives and orders may entail little control (Brunsson and Jönsson 1977, Jacobsson 1984 and 1989). In effect, the degree of control and co-ordination may be about the same whether standards or directives are used; thus, it may not always be reduced if directives and orders are replaced by standards. Standardization may be a means of maintaining extensive control when traditional hierarchical methods are unavailable. Thus, the EU may be able to achieve a high degree of control and co-ordination in certain areas without being transformed into a strong hierarchy.

Sometimes standards may even be more controlling than directives. Those following standards have themselves decided to do so; therefore, they may be more loyal to standards than to directives decided and imposed by others. At least in certain situations, a natural attitude would be not to take the directives of hierarchies too seriously, to make light of them, and perhaps even to violate them. It may be harder to maintain the

same distance toward standards, which people have freely adopted, thus establishing a commitment which they would rarely feel toward directives.

Instead of markets

Good solutions and co-ordination may sometimes be achieved through markets, in which case there is less need for standardization. But markets are far from always that good; markets may lead to poor solutions, to poor co-ordination, or both. It may be difficult for better solutions to take hold; for example, new companies with new products may find it hard to enter the market. The need for co-ordination and compatibility with previous products may also prevent new and better solutions from gaining acceptance. An example sadly familiar to us writers is that of the user-friendly Macintosh computers, which lost out to the inferior PC; as a result, we have been forced to use word-processing programs which are declining in quality while requiring ever more powerful computers.

In other situations market mechanisms lead to multiple solutions, with no possibility of co-ordination. For example, there is a global market for electrical products, but we do not have identical plug-and-socket connections throughout the world. This incompatibility is a problem for travellers the world over.

In such situations there is a need for standardization. Unfortunately, precisely here standardization is often especially difficult to achieve. Differences in plug-and-socket connections have not been eliminated, despite years of effort to establish common global standards. When major market actors have made substantial investments in a particular solution, they have little interest in abandoning it. While companies in that situation may participate in the process of standardization, their purpose will be to keep the lid on undesirable standards, or perhaps to squelch any standards at all. It may be somewhat easier to agree on standards in new areas where neither sellers nor buyers have made heavy investments.

By contrast, there are few obstacles to market solutions in administration. Here there is little need for co-ordination among different organizations; the only challenge is to introduce appropriate solutions. The sums which organizations must invest are relatively modest - it does not cost very much to change administrative systems. Market mechanisms should help obviate the need for standards; competition should force organizations to adopt the best solution.

Yet many standards are created in precisely this area. The same factors which should enable markets to set a standard also make it easier to devise standards in the hope that at least some people will follow them. The reason why markets do not function as a control mechanism is probably uncertainty as to which solution will be economically most

advantageous. Even if all of the most profitable companies had identical administrative systems, their profitability might well have little to do with these systems. While the problem with product standardization which we described above was that too many actors knew what was best (for them), what prevents markets from being a control mechanism in the case of administrative solutions is that we know too little.

Instead of normative communities

Where many actors share the same norms, there is less need for standardization. If for example everyone agrees that organizations should have objectives, there is little point in establishing a standard to that effect. If such a standard is nevertheless introduced, it may not always reinforce the norm. Instead, it may convey the message that a norm is now voluntary because it has become a standard. The case of directives, such as laws, which also express shared norms, is different. They are by nature nonvoluntary; they lend authority to certain norms and specify the sanctions for noncompliance.

While administrative standards often correspond in large measure to established norms in administration, they are still created in abundance, and there is obviously a demand for them. One reason why such standards are created may be that standardizers to a substantial degree share prevailing norms, or that they adapt their standards to prevailing norms in order to get them accepted. It is more difficult to explain why there is a demand for standards which agree with prevailing norms. One reason may be that they not only express norms but develop them further - they indicate in greater detail and with more technical specificity where the norms may lead. There may also be some kind of need for written confirmation of this kind of norm by an outside party; approval by outside expertise may add to the legitimacy of the norm. Nevertheless, we are again left with the impression that standardization is easy when there is no need for it.

On the other hand, there may be a need for standards in the absence of shared norms. When we deal with unknown parties in foreign cultures, we would be well advised to use standard contracts, to agree on the meaning of product names, and to know that the opposite party observes certain accounting standards so that we may feel confident about his financial position. As previously mentioned, when there are few common norms, it is easier to issue voluntary standards than directives, which all must obey. However, it does not follow that standardization in general is a simple matter - differences in norms may make it difficult to agree on standards too.

Areas dominated by strongly established professions, such as health care and the legal system, tend to show relatively little standardization. Within professions and their sphere of activity, co-ordination and control may be exercised largely through shared norms. In any case, there is little freedom to follow standards imposed from outside. In this respect, strong professions resemble strong hierarchies. Professions also reduce the need for standardization by offering an alternative form of co-ordination and control. A patient may be treated by several different doctors who have little contact with each other, since each can be confident that the others will follow professional norms and procedures. Doctors throughout the world can easily communicate with one another, thanks to their system of common norms.

Supply and demand

Thus, the extent of standardization in a particular situation may be expected to depend on the availability of alternatives - hierarchies, markets, and shared norms. The alternatives may reduce the supply of standards as well as the demand for them. But the opposite may also be true - we have previously shown how the different forms may be complementary rather than mutually exclusive. To determine when we may expect standardization to occur and standards to be accepted is no easy task.

A further complication is that supply and demand in regard to standardization are often interdependent. Supply may affect demand; a standard may become popular once it exists, even though no one asked for it previously. And demand may also affect supply, so that standards which are expected to be in demand are created.

It is easy to issue standards as long as it does not matter whether they are accepted. Perhaps this is why academics and clergymen are so generous with advice. If standardizers would like to have their standards applied in practice, their task becomes considerably harder, sometimes too hard. If they really care whether their standards are observed, as opposed to merely believing that they should be observed, the supply of standards may decrease.

Sometimes supply and demand are closely interlinked. The effect may be to reduce the supply. If those to whom a standard will apply are involved in developing and approving it prior to introduction, it may be difficult to arrive at any standard at all. The average time required to develop a standard at ISO is seven years. On the other hand, such a standard may sometimes be readily accepted once it has come into existence.

When supply and demand are separated, and those for whom a standard is intended are not involved in developing it, the process may be more expeditious and successful. Administrative standards are formulated in rapid succession by consultants, pundits in management, and others. The difficulty lies in getting others to follow them.

Naturally, it is easier to gain acceptance for standards which bring substantial improvements to many people. But it may be hard to find such standards - good solutions may have already been implemented, leaving little demand for standards. Greater uncertainty as to the best solution may result in more standards; this may be one reason why it is so easy to create and sell administrative standards. Since it is hard to know or learn what will turn out to be a good administrative solution, both standardizers and potential users are prepared to try something new.

Standards may be more or less controversial, and the least controversial may be the easiest to formulate and propagate. This may be the case with standards which do not deviate substantially from current practices (or practices planned for the future), or which are not expected to produce any dramatic negative effects.

Thus, the most easily created and accepted standards may be those of minor importance to users and their activities, with uncertain benefits, and of little practical significance. Standards with a clear and substantial impact are harder to create and establish. Often, though, the difficulty is not insurmountable, and standards are still a very significant phenomenon for society as a whole. Nevertheless, we may note once again that standardization is an area where needs and opportunities do not always match, and where supply may exceed demand and vice-versa.

Individualization, globalization, and standardization

Two current trends should tend to make standardization more important as a social form. One is toward individualization, with a growing number of strong actors. The other is toward globalization. Individualization means that people increasingly see themselves and are seen by others as highly independent individuals, with clear boundaries and their own norms, interests, and goals, and that they want to or have to express their individuality in their social relations (Thomas et. al. 1987). Such individuals do not readily submit to a hierarchy. Normative communities, even professions, are not very compatible with strong individualism. Markets should suit individuals better, since markets are a social form which in principle presuppose genuine individuals with distinct preferences, clear economic boundaries, and able to make their own independent choices.

Standardization is also preferable to hierarchies and normative communities as a form for individuals. If people see themselves as free and independent, they will be hard to control by directive. Standards are more appropriate than directives and common norms as a means of control. It is more appropriate to give actors advice which they are free to follow, and which is also said to be in their own interest; to follow standards, an actor does not have to give up his freedom of choice or sacrifice his interests. Advising as opposed to giving orders is becoming increasingly popular. There is no dearth of psychologists and others who offer advice to individuals on every subject from finding marital bliss to losing weight. Advice is becoming a more common commodity, within hierarchies as well as outside them. Even an organization like a school will probably send a troublesome pupil to a psychologist for counselling rather than try to correct his behaviour by reprimanding him.

Not only individuals but also numerous organizations tend to become stronger actors. In both the public and the private sector, large hierarchies are going out of style; small organizations with their own goals and clear boundaries are preferred. Government agencies and corporate departments are less popular than autonomous units and companies, preferably those who deal with others on market terms. Today's watchwords are decentralization, privatization, outsourcing, concentration on the core business, and back to basics (Brunsson and Sahlin-Andersson 1997). Independent-minded organizations are difficult to control by directives, but they are receptive to standards.

By co-operating in the EU, European nation-states have become stronger actors, even outside the traditional domain of foreign policy (Jacobsson 1997). In this way EU has contributed to the emergence of actors which are easier to co-ordinate with standards than with directives, and which are better adapted to co-operation with other states than to a more hierarchical federation.

Standardization is also influenced by globalization. Globalization manifests itself in at least four ways (Robertson 1992). There is more interaction between actors which are far apart geographically; global markets provide one example. We find more international or transnational organizations like Shell, the EU, or the International Federation of Football Associations.

It is easier to communicate over vast distances. Finally, we are caught up in a kind of mental globalization - we feel more familiar with people and what life is like in far-away places; more of us find them relevant; more of us compare them with ourselves and our own situation. We find that more things are basically alike, belonging to the same category, or at least related. Such fundamental similarities make differences truly interesting and measurable. One early and clear example is the organization of world championships in sports. Individualization is a global phenomenon, and

individuals consider themselves basically alike, compare themselves with each other, and are receptive to the same standards.

Many factors indicate that the need for standardization increases with globalization. Foremost is the absence of a strong hierarchy at the global level. Also characteristic of the global level, which encompasses a multitude of cultures, is that for numerous situations there are no common norms. Where hierarchy and common norms are lacking, there is room for standardization.

There are also many obstacles to truly transnational, global markets; many so called world markets consist essentially of numerous separate national markets, each with its own special traditions, conditions, and rules. In this situation global standardization, as in the EU and the WTO (World Trade Organization), can be seen as an important instrument for creating truly transnational markets.

Thus, globalization in its present phase appears to augment the need for standardization. Until more normative communities have been created and markets have become less national, many may contend that standardization will be necessary. Standardization is also a form of regulation which can be implemented in situations where the hierarchy is weak and a common culture is largely absent.

At the same time, there are certain tendencies toward globalization of other social forms than standardization; consequently, global standardization may be less important than if it had been the only social form at the global level. There is some tendency toward greater globalization of normative communities, often canalized through professions and normatively oriented organizations. Many professions are becoming more global; their values are largely the same the world over. In addition, a number of global organizations founded on shared values are being created; examples include Amnesty and the World Wildlife Fund. The market for many products is becoming more global.

Standardization is also appropriate in other ways for the emerging global structure. Most standardizers are in the private sector - as befits a structure without a (world) government. There is no lack of standardizers; plenty of individuals and organizations are willing to create standards which they would like to apply globally, in view of the fundamental similarities which they find among actors and conditions in different parts of the world. For the latter reason, many people throughout the world are ready to listen even to standardizers far away. A final factor favouring global standards is that standards are based on expertise, which by and large knows no boundaries. Experts in most areas consistently hold that their expertise is independent of geography or culture, they communicate and interact with each other on a global scale, and they often refer to modern science, a global phenomenon of primary importance.

Despite all these reasons, it is often difficult, if not impossible - as we have argued above - to create standards and to gain acceptance for them. As we have already noted, it is easiest to generate fairly unimportant standards; efforts to establish more meaningful standards sometimes come to grief. There are many administrative standards with adherents world-wide, whereas we still have to struggle with differing national standards for many technical systems. Both Swedish and Malaysian companies follow ISO 9001, but they use different electrical plug-and-socket connections. Railway authorities throughout Europe try to be up-to-date on the latest trends in administration, but differences in their technical systems still make it difficult or impossible to roll a locomotive across a national boundary. We may have to put up with monotony where we would have appreciated variety, while having to live with costly and irritating technical incompatibility where we would have appreciated uniformity.

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