

Knowledge and valuation in markets

Patrik Aspers

MPIfG Journal Article

Patrik Aspers: Knowledge and Valuation in Markets. In: Theory & Society 38(2), 111–131 (2009). Springer Verlag

The MPIfG Journal Articles series features articles by MPIfG researchers published in peer-reviewed scholarly journals as well as articles by visiting researchers written at the institute. | Max Planck Institute for the Study of Societies (MPIfG) Cologne | www.mpifg.de

Published online: 13 December 2008

© The Author(s) 2008. This article is published with open access at Springerlink.com

Abstract The purpose of this theoretical article is to contribute to the analysis of knowledge and valuation in markets. In every market actors must know how to value its products. The analytical point of departure is the distinction between two ideal types of markets that are mutually exclusive, status and standard. In a status market, valuation is a function of the status rank orders or identities of the actors on both sides of the market, which is more entrenched than the value of what is traded in the market. In a market characterized by a standard, the situation is reversed; the scale of value is more entrenched than the rankings of actors in the market. In a status market actors need to know about the other actors involved as there is no scale of value for evaluating the items traded in the market independently of its buyers and sellers. In a standard market it is more important to know how to meet the standard in relation to which all items traded are valued. The article includes empirical examples and four testable hypotheses.

Economic sociology has largely neglected the issue of knowledge. There is a discussion on the so-called knowledge economy (e.g., Powell and Snellman 2004) that is connected to what Bell (1973) wrote on knowledge (Frank and Meyer 2007: 293–296). These and other works qualify labor as a factor of production by adding knowledge as its central component. The knowledge-economy discussion focuses on, for example, work organization, technology, and the role of patents. Fewer studies address the role of knowledge in the economy (but see Barry and Slater 2005; Hayek 1945), though there is of course much to say on this topic at a general level (Steiner 2005).

Economists have written on forms of knowledge in the economy (e.g., Geanakoplos 1992), and on information and knowledge in markets (Akerlof 1970). Akerlof showed that markets might not emerge if it is difficult to determine the underlying quality of the items traded while only one side of the market (typically the seller) has information about the items. This is an example of

P. Aspers (✉)

Max-Planck-Institut für Gesellschaftsforschung, Paulstr. 3, 50676 Köln, Germany
e-mail: pa@mpifg.de

asymmetric information that jeopardizes the assumption of perfect information of neoclassical economics, as elaborated by Knight (1921).

This article targets what is often seen as the core of the economy, namely markets (Swedberg 1994, 2005), and it discusses the knowledge actors need to operate in them, focusing on valuation. There are economic sociological studies that raise the issue of valuation in markets (Aspers 2005; Beckert and Rössel 2004; Callon 1998; Smith 1981, 1989, 2007; Velthuis 2005; White 1981). In my view, valuation is a useful entry point also for examining the question of knowledge in markets.

My purpose is to contribute to the analysis of knowledge in markets. This demands that markets are discussed in some detail. I outline two types of markets, called status and standard markets, and argue that actors need different kinds of knowledge to operate in them. This article makes three contributions. The first is the distinction between types of markets. The second is the discussion of knowledge and codified knowledge. The third, and most unique, contribution of this article concerns how market types are connected to forms of knowledge, which means that I indicate a possible bridge between the literature on markets and the one on knowledge. The article starts with a discussion of markets. The next large section is on knowledge, which is followed by examples of the two kinds of markets and the corresponding knowledge in the markets. Before concluding, I present four testable hypotheses.

Market distinctions

In everyday language, we may talk of “financial,” “producer,” or “consumer” markets. Economists often speak of kinds of markets based on the commodity of the market, such as “monopoly” and “monopolistic” commodities, and the corresponding markets.¹ The sociological discussion on markets has made progress since the first steps were taken in the early 1980s (Fligstein and Dauter 2007; Lie 1997; Smelser and Swedberg 2005; White 1981). Sociological research on markets, in contrast to the economic research that focuses on the objects traded, aims to understand markets by focusing on the interplay between the social structure and what is traded (that is, commodities or services). A market can be seen as “a social structure for exchange of rights, which enables people, firms and products to be evaluated and priced. This means that at least three actors are needed for a market to exist; at least one actor, on one side of the market, who is aware of at least two actors on the other side whose offers can be evaluated in relation to each other” (cf. Aspers 2006b: 427). This definition suggests that the market structure consists of two roles (buyer and seller), each standing on one side of the market facing the other side. The two roles have different goals, “to sell at a high price” and to “buy at a low price” (Geertz 1992: 226). The items are traded because it is in the market actors’ interest (Swedberg 2003) to get something from the

¹ There are other forms of goods, such as positional and nonpositional goods, and standardized and non-standardized goods. Positional goods depend on how desirable they are in comparison to substitutes, or in other words goods whose “value depends relatively strongly on how they compare with things owned by others” (Frank 1985: 101). Nonpositional goods do not depend on this kind of relative value. Differentiated goods are those that are different from each other, in contrast to non-differentiated or standard goods, which are homogenous.

market, for example money or goods. Valuation implies the possibility of comparison and competition, which are essential components of markets. Though market competition includes struggle (Simmel 1923: 216–232), it is a peaceful form of interaction (Weber 1922:383, 1968:17). A market has a name, and its boundaries can be regulated or determined by the cognitive similarity of actors and their perceptions (Kennedy 2005; Rosa et al. 1999).

Some conditions must be fulfilled before one can talk of a market. Jens Beckert (2007) has identified three problems of coordination that must be solved before there can be a market. The first coordination problem is the value of what is traded, the second is the organization of competition, and the third is how market actors cooperate. I agree with Beckert on the importance of the value problem, since actors must agree on what is being traded; a car cannot be sold at the stock exchange, and neither can gold, but stocks can. The second coordination problem, in my view, is to determine the rules of the market. This refers to the culture and the informal as well as formal institutional structure of the market. The focus here is only on the particular conditions of markets, though these too ultimately draw on the *lifeworld* (Husserl 1992). Market cultures are often the same in many different markets, which is to say that one can talk of a general market culture. The culture of the market also refers to the language, the special meaning of the terms used, as well as the history and narrative of the market. A market also has “rules” for “how to do things here,” which also covers what are called “rules of exchange” (Fligstein and Mara-Drita 1996). A market culture makes it possible for people to predict how they can, and how others will, act. Once the right market—defined by its culture and the object traded—is “identified,” the items traded must be evaluated and priced, but how can actors actually do this? To address this issue is in my view the third coordination problem that must be solved in a market. I will say less about the emergence of prices in markets, and instead focus on the relationship between the valuations of the things traded in markets and the knowledge that actors need in order to operate in these markets. This undertaking, however, is important also for understanding how prices are set, as market prices presuppose valuation.

Given that a market is separated from other markets and non-markets, there are two kinds of markets, standard and status (Aspers 2008), each with its own way of “valuation.” I argue that this is the central distinction to be made in markets because it includes both what is traded in the market, a commodity or a service, and the social structure. The distinction between status and standard markets is also inherently social, and does not fall into the materialistic trap and make distinctions based on the objects traded, nor into the ontological trap of realism and assume that there is a social world “out there” just waiting to be discovered. The point is to see how material and social relations are part of what is socially constructed. The main point is that in a status market the rank orders of the actors on the two sides of the market (buyers and sellers) are more entrenched, or taken for granted (Berger and Luckmann 1991), social constructions than the underlying value that is used for evaluating, whereas in a standard market the value underlying the standard is a more entrenched social construction than the ranks of actors on the market. All social constructions are entrenched, but to different degrees, so that some constructions can be the basis for others. These two theoretical ideal-type markets are mutually exclusive. Obviously, no empirical market will be a pure instance of any ideal type.

Below I discuss standard and status markets at greater length in relation to examples and the kind of knowledge actors need in them.

Standard market

In a standard market a scale of value serves as a valuation order regarding a certain product or service. The corresponding everyday term is often quality. Value can be defined as the determination and rating of a “thing.” This definition captures the double nature of value; it is a way of separating things from one another, but it can also be used for evaluating those things that are covered by value. In the latter case one can speak of a scale of value, or a set of characteristics, which is distinguishable and that can be used in evaluating material and non-material things, such as people and actions. This scale of value is a component of standard markets (Marshall 1920: 257). The characteristics of things are seen historically as inherent in what is being evaluated, and this together with the scale means that things and people can be evaluated independently of each other (Farris 1960:855; Reeves and Bednar 1994).² From a social constructivist perspective, the things evaluated do not have essential characteristics; it is enough that they are taken for granted so that they can be unambiguously evaluated according to the scale. The standard market is centered on certain characteristics, or as some would say “quality conventions” (Favereau et al. 2002). Given this, a vertical differentiation of products can be created based on the quality scale (the value). The differentiation can be carried out with a continuous quality scale or one with discrete steps. That a standard is used for evaluation does not imply that producers in a market offer identical products. In monopolistic competitive markets many sellers, who often also are producers, differentiate by offering different products, which means that they thereby gain identities and create market niches (Chamberlin 1948; Kirzner 1973; White 1981, 2002). Also, a monopolistic competitive market can be a standard market if cohesion is based on the underlying quality standard (Callon et al. 2002; Favereau et al. 2002:213), though producers meet this standard to different degrees using slightly different means (White 1992:29, 2002:78–79).

Both the neoclassical model presented by Knight (1921), and Marshall’s (1920:256–258) model of “organized markets,” assume homogenous commodities. These markets are instances of what I call standard market. The difference is that the neoclassical market model assumes, as it were, only one value. One may in this case speak of binary categories. Only identical commodities are traded in the market; other items have to be traded in other markets.

The standard that a value represents in a market has to be perceived and used by actors, so that “consumers [and producers] agree on quality variations” (Banks 1963:1368). In other words, “A good quality standard for any product should be built on characteristics that users of the product recognize and consider important” (Noles and Roush 1962:21). Both consumers and producers take part in the construction of these standards. To be in the market both buyers and sellers share the

² This is true of markets as well as of, for example, handwriting (Manuel 1915:269).

idea of its standard, or, in other words, quality. This latter idea resembles what is argued by the French school of the economics of conventions (Boltanski and Thévenot 2006; Woolsey Biggart and Beamish 2003:455–457). Although standards do not have to be written, or directly measurable by objective means, what is traded in this market is a more entrenched social construction than the social order of market actors.³

A standard market cannot, as economists (e.g., Barzel 2004) tend to do, be reduced to the commodity, as any market is also about its actors. In a market ordered by standard, market actors are positioned in relation to each other as a result of how well they perform according to the established scale of valuation, that is, the standard. In this type of market, it matters little who the actors are. What matters is what they do. If there is a standard entrenched in the market, actors on both sides of the market orient themselves primarily to this, though as mentioned, with different interests (as seller or buyer).

What empirical markets can be understood with the help of this ideal-type market? Brent crude oil is an example of a highly standardized product that is sold in a market that resembles the “perfect” market, as presented in neoclassical textbooks.⁴ This market is perfect because the standard makes the objects traded, “barrels of Brent crude oil,” identical. Moreover, it does not matter who the producer is as long as it is Brent crude oil. Consequently, competition in this standard market is focused on price. One may here talk of a market price as economists do. One consequence is that firms can be profitable essentially only by reducing costs (White 2002).

Standard markets, moreover, include, for example, commodity markets in which the scale of value is clear and entrenched, such as the “natural standards” of cotton and wool, as described by Alfred Marshall (1920:56–57). A cotton producer can know what standard he or she produces before entering the market. By checking the price on the commodity exchange, the producer also knows the economic value of what is produced, given that prices are fairly stable in the short run or that there is a future market. That the product is standardized, moreover, is a condition for future markets. Standardized products are the implicit condition of global price competition, which, for example, has been the case with wheat since the first quarter of the twentieth century (Marshall 1920:258–268).

Standards are common in technology-driven industries (Schmidt and Werle 1998), which also means that one finds many standard markets in these industries. However, standards are not only restricted to commodities with a material base. A taxi journey between a given city and airport can be seen as a standardized service, and flat rates for some trips are evidence of this. Other markets, such as the market for pulp and other highly standardized products, are best analyzed using the idea of a “standard” market.

³ In some markets goods are traded that are clearly identifiable, and one may then talk of a standard market because of the standardized product. A standardized product is “made with a known, widely diffused production technology in which quality is so widely attainable that competition comes inevitably to be centered on price” (Storper 1997:109). Quality standards, moreover, enable people to communicate, trade, and calculate (Barzel 2004; Favereau et al. 2002) which makes them more like standards of time, weight, and so on (Wilson 2000:57).

⁴ The fact that states, as significant suppliers, may affect the market price does not, however, affect the constitution of the product.

The existence of a scale makes it possible for actors to identify the quality of what they produce in relation to the standard, and indirectly in relation to others. The market for gold mines is one example that can clarify this point. The percentage of pure gold in ore determines, given the chemical composition, whether it is profitable to begin extraction at the investigated site. To decide whether it is profitable to open a mine in an area or not is obviously contingent on the associated costs (of labor, and so on), and the expected market price. Marshall (1920:256–258) discusses how one can gain knowledge of goods that are not quickly perishable by measuring and evaluating them by means of numbers so that “quality” can be determined independently of the tester.

To talk of a standard market is not to say that the standard is set in stone; it is a social construction that can be reconstructed. The standard, however, is at least a more taken for granted social construction than the order of the actors on the two sides of the market interface. What happens if there is no scale, or value, that can be used to measure “quality”? Can there still be a market?

Status market

In a status market, it is not the value used for evaluation that is the most entrenched social construction, but the social structure made up of the actors who have identities on the two sides of the market. In fact, this ideal type of market lacks a scale of value that is independent of its actors.

The notion of status used here resembles, and partly draws on, the influential notion used by Podolny, though the two are not identical. He (Podolny 2005) essentially sees status as something that is “in” the objects (people or things). Podolny’s usage is understandable given that his reasoning is based on ontological realism. He seems to think that there is a rank order based on a standard behind the status rank order. Podolny’s approach does not open up to co-constitution of actors’ identities and what is traded. In my view, the actors, and what is traded in the market, are co-constituted, which suggests that “quality” orders must also be included in the analysis.

The participants in the market, sellers and buyers alike, must direct their focus to the social structure made of identities that are related to each other. In other words, by having a stable social structure of identities with positions that are fixed in relation to each other, which make up a status hierarchy, the market overcomes the problem of asymmetry that Akerlof (1970) raises.⁵ Other economists, such as Spence (2002), have stressed that signaling resolves at least some cases of asymmetric information. Spence (2002) argues that employees who declare that they have a certain level of education can communicate to employers that they have invested in education, which signals that they are productive. It is interesting, however, that the signal—education—need not itself be substantiated, as long as it operates as a proxy for productivity. Akerlof, Spence, and Podolny agree that there is an underlying quality of what is traded in the market that can ultimately be

⁵ Asymmetric information, however, is important only when it “leads to uncertainty about what the other agents are doing” (Geanakoplos 1992:56). Akerlof (1970:499–500) points also to the role of “brand names” as a “counteracting institution” to the uncertainty of the quality.

determined. In their cases quality is represented in the “quality of the car,” “productivity,” and “capacity of investment banks” respectively. The conditions for knowing these “internal” values of what is offered in the market, however, are not fulfilled in a status market, which takes us back to the social structure.

In a status market, the rank orders of the actors—that is, the interrelated status position of buyers and sellers—replace the standard and create order in the market over time. What is traded in this kind of market is a function of the participating actors. This means that when high-status sellers and high-status buyers come together, what they trade “becomes,” rather than “is,” of high value. A further consequence is that the information problem of the “quality” of the product cannot be solved by observation of the items traded, due to the lack of an independent scale of measurement.

How do actors gain these positions in the social structure of status positions? Let us begin by looking at the actors who are either directly evaluated for what they are, or indirectly for what they do. In status markets, actors differentiate what they offer. The sellers, if we look at a traditional “downstream market” (White 2002), are endowed with status in a process of valuation depending on what they offer. In this way, a vertical status order is created out of the horizontal differentiation of what is offered; some actors gain more status than others do. But how is this distribution accomplished?

The consumers usually constitute the economic audience that endows the producers with status. Bourdieu says that the relationship to the audience “constitutes[s] one of the bases for evaluating the producers and their products” (Bourdieu 1993:46; cf. Zuckerman 1999). It is therefore the other side—the buyers—who make a call and thus evaluate the offer. The result of this evaluation and status endowment is that some sellers gain more status. Those who give status are normally not an anonymous mass, though this is possible. There is often also an order based on status among the consumers in a market.⁶ The value is in this case a function of the rank orders of the identities of the market actors. What comes out of a status market is co-produced by the actors who come together, and these interactions can be observed in the market by its actors (White 2002). When this market interaction is reproduced over time a social structure made up of the two sides is created or reinforced. Actors on each side of the market, sellers (for example “producers”) and buyers (for example, “ideal-type consumers”) respectively, are ranked in relation to each other. In this way, two rank orders are generated, and not only one, as is the case if the consumers are an anonymous mass.

What is the consequence of this social structure? What an actor does, produces, or “gives off,” to use Goffman’s ([1963] 1968:13) phrase, in a status market is a function of his or her market identity, which must be connected to his or her status position in the relevant social structure. In other words: in this type of market it matters who one is, which one cannot separate from position in the social structure.

Although it may appear odd that market actors’ identities—for example, the set of firms selling a product, and the ideal-type consumers who play the role of buyers in the market—are considered to be stable in relation to each other, it is important to remember that these orders are at least more stable than the value, that is, the

⁶ The origin of this order is only partly related to interaction in the market; but it may be constructed in other markets and non-markets in which status is distributed and generated, though the interrelation of markets is an issue that is outside the scope of this article.

standard, of what is traded in the market. Status and standard refer to the relative entrenchment of the items traded and the social structure of traders in the market.

As the rank order of actors in status markets is more stable than what they give off (for example, produced commodities), it is more difficult than in a standard market for actors to know what to do well (for example, to move up the status ladder). Only when actors are in the market and present what they offer can they truly know the “value” of what they have done. In a status market, actors orient themselves to each other, in particular to those with high-status because they represent “quality” or, in broader terms, what is valued in this market. A further consequence is that in the economy, which is future oriented, there are no future status markets in which risks can be hedged, which leads to more uncertainty. Moreover, sellers who gain much status can set higher prices on their products or services (Podolny 2005). In fact, prices in a pure ideal-type status market would simply reflect actors’ status, which is to say that high-status sellers would set higher prices for their products.

Let us look at an example of a status market. If a well-known jewelry designer turns the gold that she bought on the gold market into a piece of “art,” this piece has to be valued in relation to the status of the designer. It must be said that it is not the number of hours of work that is put into the jewelry that matters, as Marx argued; anyone can spend hours making jewelry, but the items will still not be the same as those of the “artist.” It is what the actors in the market value that matters. The very idea of artist is here connected to the social system that produces artists, that is, “art worlds” (Becker 1982). In this case, buyers operate as an audience that values what the different players on the stage make. Although the value of the piece of gold depends on the gold price, which is determined in the standard market for the metal gold, it has become a piece of “art” because people who are recognized as the audience, and of course others too, evaluate what artists do. It is in the status market that a significant value is added to the metal. In this social process, some actors gain more status than others.

In some markets—for example, the fashion model market (e.g., Entwistle 2002)—the side made up of the fashion agencies evaluates and determines what “good looks” actually means. This the actors also do, of course, with the help of their customers, such as photographers, but essentially without any direct influence from the models and those who want to become models. This means that models, and in particular those who want to become models, are critically scrutinized by model agencies. There are demands, such as being within a certain height bracket, 175–183 cm, which is a standard for female models. But few women will meet this requirement in combination with the high demands concerning the appearance of their faces and bodies. However, the look that is demanded is subject to fashion, which means that “quality,” in essence, is a function of what the people working for the agencies think looks good for the time being. It is not really possible to know what people will think and like 2 years from now; the closest one may get is the partly performative and partly forward looking work of trend analysts and others trying to forecast trends.

Status markets can, for example, be found where aesthetic judgments are common (Warde 2002:192). Today, not only fashion garment markets (Crane and Bovone 2006), art markets (Velthuis 2005), and markets for photographers (Aspers 2005) could be seen as “status” markets, but also markets for cars, furniture, art, and many other “markets” could be analyzed using this idea.

The two kinds of markets

Before discussing the role of knowledge, I summarize the two types of markets discussed above. Figure 1 illustrates standard and status markets, and the different orientations that characterize them.

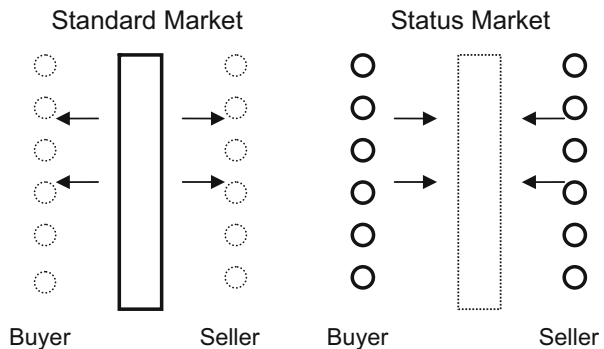
The distinction between status and standard markets is analytic. Thus, though reality comes in shades, there is an analytic threshold (Granovetter 1978) between the two forms of ideal-type markets, that is, either the social structure or the value (standard) is the most entrenched social construction. There is, so to speak, a necessary tipping point at the ideal level of analysis, where the one side becomes, relatively speaking, more entrenched than the other.

Can one find evidence of tipping points of this kind? To identify the exact time and place of the tipping from one to the other kind of market demands detailed empirical research, but there is evidence that this has happened, for example, in the garment industry. The contemporary final consumer market for fashion garments in Western countries is best understood as a status market (Aspers 2008). This, however, has not always been the case in the fashion market. The final consumer market in the past was most likely ordered according to the principle of standard. Balkin's (1956) detailed description of the production of raincoats suggests that this market was not oriented to fashion, but to production, quality, and pricing, that is, to a production standard. Though demand of course also changed in those days, it is reasonably clear that competition was price-centered, and no reference to brands or anything that even resembles firm's identities or niches, or status in markets is mentioned that would indicate that this was a status market (of course, with haute couture as an exception). In addition, other studies suggest that the final consumer market for garments used to be a standard market (Gregory 1948:71).

Knowledge

What are the knowledge conditions of markets? My point is that this question must come second to the question of the kind of market that one is studying. The distinction between status and standard is fundamental for analyzing and

Fig. 1 The relation between value and structure in standard and status markets (ideal types). The *bold lines* represent the strongest (more entrenched) social construction in each of the markets, and the *dotted lines* represent the weakest. The *arrows* indicate the direction of valuation



understanding the different kinds of knowledge needed in markets. What, then, is the connection between forms of markets and kinds of knowledge?

Knowledge, in contrast to information (Amsden 2001), is based on interpretation.⁷ Interpretation draws on the lifeworld and, more concretely, on the preunderstanding of the interpreter (Heidegger 2001:152–153).⁸ Knowledge is here defined as “having the capacity to do what it takes in a situation.” The definition stresses that knowledge is connected to situations and contexts, and that actors must interpret the situations they are in, and that knowledge does not have general applicability. This acknowledges the symbolic interactionist idea that meanings emerge in situations, and that knowledge cannot be conceptualized as transposable atoms ready to be used. Fredrik Barth (1995:66) sees knowledge as a “modality of culture.” The definition I propose covers codified knowledge and various forms of embodied, practical, and tacit knowledge (Aspers 2006a).

Knorr Cetina (1999), too, stresses the importance of the situation when she talks of knowledge. She does not, as some do, see knowledge as “statements of scientific belief, as technological application, or perhaps intellectual property.” Her definition “switches the emphasis to knowledge as practiced—within structures, processes, and environments that make up *specific* epistemic settings” (Knorr Cetina 1999:8). In her view, knowledge is connected to specific settings that can have their own culture. A central aspect of knowledge in this article is that it can be more or less codified. This is to say that it can partly be documented and partly transferred with the help of language, as Schütz’s (1964) notion “stock of knowledge” indicates. I now look at the two kinds of markets to find out what role for and what kind of knowledge each of them demands.

Knowledge in standard markets

A standard market implies that actors know the standard, which informs them what the market demands. Let us take the production of axles of a certain tolerance that will form part of an engine as an example of a market in which both buyers (“customers”) and sellers (“machine shops”) can orient themselves to the standard. In this market buyers ask for bids to make axles, and let machine tool shops reply with offers that state that they will deliver the finished product on a certain date and according to the demands of the buyer, and at a certain price that may differ between those replying with bids for the order. One can here talk of an absolute quality (standard) given the required steel quality used to manufacture the axles. To know what it takes to produce these fine machine axles is “simple”; the turner in the machine tool shop who makes them using a

⁷ It should be pointed out that the problem addressed in this article does not concern information. Information may be almost perfect in a market but knowledge is a matter of how this information is used.

⁸ The general idea of knowledge, traceable to ancient Greece, is an agreement between thought and reality (e.g., Berger and Luckmann 1991:1; Smith 1895:32). There are, of course, many forms of knowledge, which cannot be discussed here. It is, for example, clear that the body is a knowing instrument (Crick 1982:300), and there are various forms of tacit or embodied knowledge (Bourdieu 1977:2–3, 1990:52; Giddens 1984:328, 375).

lathe only has to look at the blueprint (which is made using a number of standardized symbols that refer to yet other standards) to know the size, surface finish, and other conditions of production. When the axle is finished, the product can be measured to see if its size is within the tolerance allowed, or above or below the exact dimensions of what the blueprint demands. To measure this one can use tools that are standardized against yet other standards (ultimately, the definition of length).

This entire work process is codified in terms of standards to which all turners can orient themselves. One part of this standard can be observed in Fig. 2, namely the angles of the cutting tools if high-speed steel or carbide cutting tools are used. In this kind of market, actors can control whether their products meet the quality standards before they enter it. This also means that turners primarily do not have to orient themselves to other turners; the standard is enough.⁹

Hence, given the type of steel quality of the axle, and the surface finish that is demanded, machine tool manufacturers inform the turner about what tool to use, and what speed (r.p.m.), how much he can feed his tool against the material, and how deep he can cut. Few non-turners could manage to produce axles within a tolerance. But the important thing is that the difficulties, which I would be the last to underestimate, are nonetheless of a basic character for a *turner*; it has to do with knowing what a lathe is, how to handle it, and learning the concepts necessary to talk about it. Essentially, to be a turner is to know these things. Given his knowledge, a turner can make use of codified knowledge to perform a combination of operations that he has never done before, and still be fairly confident that the result will be what he expects (that is, meeting the standard). I have not included here the issue of price, which of course is also central in this market, but it is possible to calculate the cost of production of the axles given knowledge of the material and the labor costs, as well as other costs.

In the above example, there is one reference point, entrenched in other standards, but not a scale. In many markets there is a gliding scale, so that there is a scale of value, and what is valued may score higher or lower in relation to it. Farming, to take another example, has developed product standards over a long period of time. To talk of grades is to refer to a scale divided into discrete steps. The market for eggs is no exception. There are egg standards (Banks 1963; Gaumnitz 1933; Jacob et al. 2002) that began to be developed in the United States in 1923 (Noles and Roush 1962:21). These are based on internal and external characteristics of eggs. Expert users of eggs were asked, and it has been confirmed that their evaluations of real eggs correspond to the official egg quality standard (Noles and Roush 1962). The egg standard—and here I rely only on the Californian standard—is quite complicated (Jacob et al. 2002). It is based on observations: for example, whether there are blood or meat spots in the eggs, which makes them eggs of inferior

⁹ There are, however, also non-standardized steel qualities. Steel quality is determined by the amount of material blended with iron, but also by tests of hardness and strength. Thus, even though “everyone” knows the tolerance of axles for the engine, which is required by a turner, it is not possible to produce this if the lathe is not good enough, or of equal importance, if the tools to measure the size of the axles are not available.

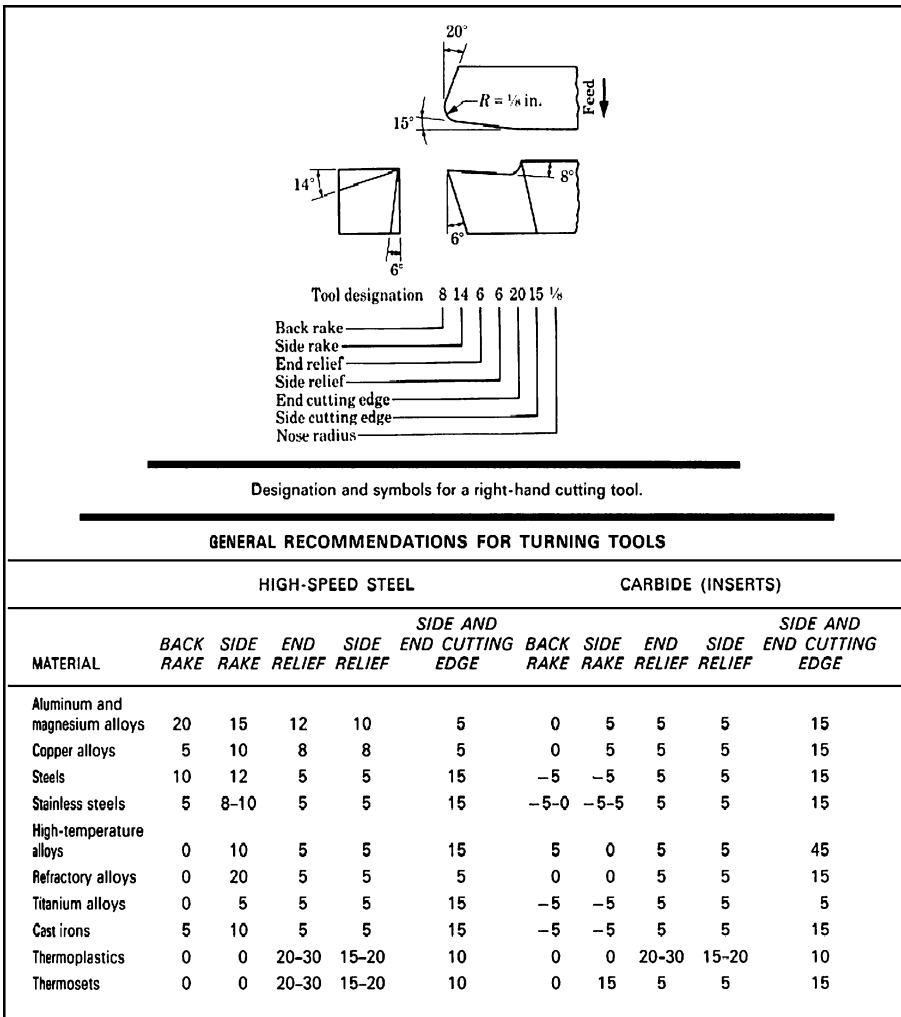


Fig. 2 Information on standards in relation to angles for cutting tools of high-speed steel. It provides suggestions concerning how to prepare cutting tools, given the material on which the turner works¹⁰

quality.¹¹ This standard is expressed in words, and it is made for professionals and non-professionals alike. The standard, and the orientation to what an egg is and how to rate it, is then “independent” of consumers and producers. One may say that it is enough for an egg producer to know the standard to produce eggs of a certain

¹⁰ This illustration is old, but though the industry has developed computerized lathes, many lathes more than 30 years old are still in use, and cutting tools are still made of high-speed steel.

¹¹ The United States standard when the study was conducted, for example, did not recognize the presence of chalazae—the two membranous twisted strings by which the yolk is bound to the ends of the shell—though it was mentioned by the housewives included in the study. But even though this was mentioned, it did not affect their rating of the eggs (Noles and Roush 1962:24).

quality. Calculability (Callon 1998) and price formation connected to the different qualities are conditions for stock exchanges and future markets in eggs (Brown 1933), as well as many other items.

The knowledge needed in a standard market is primarily oriented to the standards, which, so to speak, are sedimentations of human interaction and struggle. But once the standard is taken for granted, the need for social interaction diminishes.

Knowledge in status markets

In a status market, as indicated by the gold designer example, the knowledge needed is of a different kind. One may say that there are few standards, material or immaterial, to which actors can orient themselves. How do actors in this kind of situation come to grips with the world and, more concretely, what is knowledge in this kind of market? Let us look at the case of fashion.

The consumer market for fashion is a good example of a market in which there are no product standards (Aspers 2008), as Simmel already noted: “The absolute indifference of fashion to the material standards of life is well illustrated by the way in which it recommends something appropriate in one instance, something abstruse in another, and something materially and aesthetically quite different in a third” (Simmel 1971:297–298).

Fashion is a function of actors coming together from the two sides of the market, sellers and buyers (Bovone 2006). In this market, each side is a rather stable social rank order, so that there are firms and consumers who are more in fashion, and who essentially define fashion (McCracken 1988). These actors have much status. There are other actors, on both sides, who interact with each other, but who are “out of fashion” and have little status.

Thus, fashion is made when high-status garment sellers’ garments, for example from Prada or Dior, are purchased and worn by well-known consumers, such as wives of soccer players and other celebrities. For this reason celebrities are sometimes given clothes, or they are sold them at a discount, in order to bring status to the brand. The essence of fashion is to be first with the latest, and fashion trends change very quickly. Fashion trends, which of course are manifested in products, change more rapidly than the status order of actors. Given that the nature of fashion is constant change, the individual garments matter less. It follows that if an actor has “knowledge” of what is in fashion today, this knowledge will be of only “historical” value 3 months later. This, as stated above, means that one cannot talk of a standard that actors orient themselves to, but one can talk of a social structure that is stable. The knowledge that actors in a fashion market have cannot be oriented directly to the products, while they are not determined by a scale of value (or a fixed value when we talk of homogenous products). Thus, though different types of fabrics are sometimes seen as “better” than others, this is not a universal condition. One cannot conclude that a silk suit is intrinsically more valuable than one made from wool or cotton. It has more to do with whether it is fashionable or not, and the historically determined values of material; to decide this calls for information on who produced it, and who wears it, and knowledge of how to interpret this information.

Actors in this market have to orient themselves towards each other to look for clues about what to do in their situation. If they are in a fashion market, they have to know what is the most entrenched social construction, that is, the names of designers and their status order. To know the market also implies understanding the movements within the market, being in touch with the market to pick up the latest trends, and learning who is about to be “out” and who is climbing up the status ladder. Knowledge in this market is knowing about the social structure and how its “game” of positioning and mobility in the market and the industry at large is played and communicated.

It is difficult for both producers and consumers to know what is going on in this market. Producers use market research to try to get to know and understand their customers (Aspers 2006a). A problem here, of course, is that fashion is about the future and not about the past. Fashion means to provide customers with commodities that they, so to speak, do not know about until they are surprised by them in the store. This suggests that they have to use other means to understand their customers. To obtain knowledge about the market, firms can, for example, use analysts (Abernathy 1999:88–106; Davis 1992:129) and trend forecasters (Brannon 2005). They may also attend different fairs (Skov 2006)—some with trend seminars that provide information about future fashion trends. Magazines, stylists, and gossip are additional ways of obtaining information on, or at least an idea of what colors and fabrics are most likely to be in vogue.

Firms, however, do not merely passively respond to the social facts of fashion. They can also create trends, by advertisement, but also by “coordination.” Fashion producers collaborate on colors, but also on trends, to be “right” in the future. Business actors come together before the season to talk, and in some cases determine, what they will stress in their fashion lines. One may thus speak of an element of performativity in the market (Callon 1998, 2007).

The crucial issue in this market is not information—that is, to detect the multitude of signals that are intentionally and unintentionally, and constantly, emitted in social life—but knowledge to select the relevant information and to interpret it. Actors cope with uncertainty (Knight 1921) in this situation, too, in which they cannot be guided by standards, by orienting themselves only to the manifest, but still stable, social construction of the market, namely the order of actors. The market, in summary, lacks a standard, and it is the social structure of identities, or, as business economists say, brands, on the one hand, and the ideal-type consumers, on the other hand, that make up the order of the market. These market identities, in one sense more than the concrete products that are traded, make up the market.

Predictions

In the two preceding sections I argued that there are different forms of markets. I also discussed knowledge in these markets. Valuation has been to the fore in the discussion. In this section, I make predictions in the form of four hypotheses about knowledge, based on the different market structures. The examples I give are not intended to provide evidence concerning the hypotheses. There are two additional

reasons, besides the possibility of testing them, for presenting these hypotheses: to make the ideas easier to understand and apply.

H1 Actors in status markets orient themselves to each other.

This hypothesis corresponds to the second. In a status market actors can keep track only of a limited number of actors, for example, sellers (White 2002).¹² To obtain knowledge about their peers—for example, rival producers—firms must keep track of each other. Actors must stay “in the game” so that customers are aware of them (Faulkner 1983). This also suggests that closeness is more important in status markets than in standard ones because the orientation is to actors.

Closeness, and the possibility of interaction, however, cannot be directly translated into spatiality. It is much more the phenomenological closeness that matters (Knorr Cetina 2002).¹³ Hence, gossip and other forms of information exchange can be facilitated by networks on the Internet or by physical vicinity. Closeness is a constitutive characteristic of clusters or industrial districts (Pratt 2002; Scott 2005:117–137), though these are not constructed out of physical-logistic necessity, which is the case with some technical production districts (Knorringa 1995). That closeness is central in status markets stands in contrast to what is characteristic of standard markets, namely that orientation to the standard implies that actors can be more detached and need not talk to each other about the commodity or service, which is more or less taken for granted. Observation of competitors, market research, and market forecasting are examples of the strategies that actors in all markets can use. This is one form of mutual orientation. They may also create “alliances” or simply try to exchange status with actors on the other side who are on the equivalent status level to them, or even better, who are above them. Thus, one finds orientation to actors on the same side, but most likely to those on the other side too, especially when one side endows actors on the other side with status.

H2 Gossip is central in status markets.

Gossip, which in my usage can have both positive and negative connotations, is common in every industry. The information actors need to operate in a market, however, comes not only from observations within the market, but is also obtained “over luncheons with others in the trade, from trade associations, from one’s own customers, and so on” (White 1981:519). This information is what White (1993:167, 1995:62) calls “gossip”. Information gathering and gossip is, however, of extra importance if what is valued in a market depends on those who trade it. Thus, in markets that are not based on codified knowledge, actors have to find out what is going on, and what is good and bad, at the same time as they find out who the important actors are. This idea of gossip has general support in the market sociological literature (White 2002), but also from markets that are characterized by

¹² According to White, this information problem is also a reason why a market seldom exceeds a dozen or so producers; it is difficult to keep track of many competitors at the same time, and the risk of an unstable market increases when this threshold is exceeded.

¹³ These ideas are similar to what geographers have identified, but differ in the way they are explained (e.g., Bathelt et al. 2004). Geographers do not start with the market and use it as explanans. They tend to focus on the empirical distinction “‘tacit=local’ versus ‘codified=global,’” as Bathelt et al. (2004:32) critically note.

status (Velthuis 2005). The need to gossip also makes social interaction among members of the industry more important.

H3 Knowledge in standard markets is based on other standards.

Not only is knowledge in a standard market codified, but in order to be codified it is likely to be based on other forms of codified (standardized) knowledge. Standards, so to speak, have to be rooted, or based on other social constructions; they can at least not exist outside of a specific context of taken-for-grantedness. As discussed under Hypothesis 4, these standards can either have a social or a material base. In a status market, in contrast, there is no codified knowledge to begin with, though one can of course identify standards or conventions in all areas of life.

H4 Standards can be social.

This hypothesis is obviously restricted to standard markets. It is easy to think of standards as based on technology, but technologies are just one way of standardizing markets. Custom and social conventions can also be seen as “standards.” Max Weber (1922:16–20) distinguishes between “*Konvention*,” which is similar to what we call a norm, though he defines it in terms of “*Sitte*” (or tradition), and “*Recht*” (“law”). Weber argues that the principle of *Recht* can be like a standard (for example, “*ethischer Maßstab*”). Moreover, it has been shown in a study on the electricity industry (Yakubovich et al. 2005) that technical standards can form the basis of pricing in markets. These examples suggest that we should not theorize standards as merely technological. If we disregard the sometimes more entrenched standards of social norms, we also leave out the social process of establishing technological standards, including their legitimacy (Werle and Iversen 2006). We must not reduce standards to institutions, especially as status markets, too, would be institutions. We cannot, in other words, explain anything by means of a concept that includes “everything.”

I have formulated these hypotheses as statements in relation to the two forms of markets that I have discussed, status and standard (see Fig. 3). The proposed hypotheses already have some support, but more research is needed to adjudicate on their predictive and explanatory value.

Knowledge aspects	Market	
	<i>Status</i>	<i>Standard</i>
The role of gossip	High	Moderate
Orientation to other market actors	High	Low
Social base	High	Low
Codified knowledge (documented in text and technologies)	Difficult	Easy

Fig. 3 A summary of the four hypotheses on knowledge, given the market type

It is possible to make the analysis more detailed and to look at how the two sides of the markets, buyers and sellers, are affected by the market structure. I have discussed the role of identity in markets, and it follows that the more an actor is identified with a market, the more important the market is for him or her. This may appear a trivial statement, but it has consequences for how much an actor should invest in knowledge. In a market, the side, buyers or sellers, that gains its identity from this interaction will also invest, relatively speaking, most to get to know the market. In the majority of real markets—for example, producer markets (White 2002)—the sellers will be those who are mostly identified with the market. Buyers in such a market, in contrast, also operate in many other markets as buyers, and invest less time and effort to know this market. This is a general idea about knowledge that applies to both status and standard markets.

Conclusion

The starting point of this article is that knowledge is a neglected issue in economic sociology. The argument is in line with those who talk of the importance of knowledge in society and in the economic sphere, but this literature is abstract, and it is not very fruitful to use vague notions, such as “knowledge society.” I have, in contrast, focused on knowledge in relation to smaller social units, namely the partial orders of markets. It has been argued that one has to consider the market structure to understand what knowledge means in the contexts in which a specific kind of knowledge is applicable.

The central contribution of this article is the notion that knowledge in the economy must be understood in relation to market structure. This statement is a result of an attempt to combine the literature on markets with that on knowledge. The rationale behind this idea is that the complexity of society cannot be handled at the level of different spheres, which Weber (1946), for example, discusses. Smaller units are needed to combine a phenomenologically correct description with scientific explanations based on understanding, and I have stressed the role of markets as smaller and more tangible units of analysis. I also hope that this article can help to bridge two literatures, the literature dealing with standards (e.g., Brunsson and Jacobsson 2000), and the economic market sociological literature.

The distinction made between status and standard markets is profound. Although real markets are always blends of the two ideal types, there is a tipping point, so that either the social structure or what is traded is the most entrenched social construction. Depending on the kind of market, there are different knowledge conditions. The article presents four predictions that connect knowledge and the economy that are to be tested in real markets. These predictions are conditioned by the market structure, and can be used to explore further the black box labeled “market mechanism” by economists.

The two concepts of market and knowledge connect to perhaps the most acute question of economic actors, namely how to overcome uncertainty. Markets are ways of coordinating economic transactions, and this coordination generates at least partial order. But there is also great uncertainty within markets, which, I have argued, cannot be understood unless one also brings in the notion of knowledge. To have a better understanding of the role of knowledge is crucial for the discussion of

how standards are playing an increasing role in the work of organizing and managing uncertainty by creating calculable risks (Power 2007) in markets.

Acknowledgments Two anonymous reviewers and an Editor of Theory of Society have contributed substantially to this article. I am also grateful for the comments on earlier versions of this article by Sebastian Kohl and by Jan-Christopher Strobel and the other participants in the Sub-theme on “Markets for Technologies, Technologies for Markets” at the EGOS conference in Bergen 2006.

Open Access This article is distributed under the terms of the Creative Commons Attribution Noncommercial License which permits any noncommercial use, distribution, and reproduction in any medium, provided the original author(s) and source are credited.

References

- Abernathy, F. e. a. (1999). *A stitch in time: Lean retailing and the transformation of manufacturing-lessons from the apparel and textile industries*. New York: Oxford University Press.
- Akerlof, G. (1970). The market for ‘lemons’: quality uncertainty and the market mechanism. *Quarterly Journal of Economics*, 84(3), 488–500.
- Amsden, A. (2001). *The rise of the rest: Challenges to the west from late-industrializing economies*. Oxford: Oxford University Press.
- Aspers, P. (2005). *Markets in fashion, a phenomenological approach*. London: Routledge.
- Aspers, P. (2006a). Contextual knowledge. *Current Sociology*, 54(5), 745–763.
- Aspers, P. (2006b). Markets, sociology of. In J. Beckert, & M. Zafirovski (Eds.), *International encyclopedia of economic sociology* (pp. 427–432). London: Routledge.
- Aspers, P. (2008). Order in garment markets. *Acta Sociologica*, 51(3), 187–202.
- Balkin, N. (1956). Prices in the clothing industry. *Journal of Industrial Economics*, 5(1), 1–15.
- Banks, Q. (1963). Grade standards and product identification labels influence the demand for eggs and other farm products. *Journal of Farm Economics*, 45(5), 1365–1369.
- Barry, A., & Slater, D. (Eds.). (2005). *The technological economy*. London: Routledge.
- Barth, F. (1995). Other knowledge and other ways of knowing. *Journal of Anthropological Research*, 51, 65–68.
- Barzel, Y. (2004). Standards and the form of agreement. *Economic Enquiry*, 42(1), 1–13.
- Bathelt, H., Malmberg, A., & Maskell, P. (2004). Clusters and knowledge: local buzz, global pipelines and the process of knowledge creation. *Progress in Human Geography*, 28, 32–56.
- Becker, H. (1982). *Art Worlds*. Berkeley: University of California Press.
- Beckert, J. (2007). Die soziale ordnung von märkte. Cologne: Max-Planck Institut für Gesellschaftsforschung, Discussion Paper 07/6.
- Beckert, J., & Rössel, J. (2004). Reputation als mechanismus der reduktion von ungewissheit am kunstmarkt. *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 56(1), 32–50.
- Bell, D. (1973). *The coming of post-industrial society: A venture in social forecasting*. New York: Basic Books Inc.
- Berger, P., & Luckmann, T. (1991). *The social construction of reality, a treatise in the sociology of knowledge*. London: Penguin Books.
- Boltanski, L., & Thévenot, L. (2006). *On justification, economies of worth*. Princeton: Princeton University Press.
- Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge: Cambridge University Press.
- Bourdieu, P. (1990). *The logic of practice*. Cambridge: Polity.
- Bourdieu, P. (1993). *The fields of cultural production, essays on art and literature*. Oxford: Polity.
- Bovone, L. (2006). Urban style cultural production in milan: postmodern identity and the transformation of fashion. *Poetics*, 34, 370–382.
- Brannon, E. (2005). *Fashion forecasting*. New York: Fairchild.
- Brown, C. A. (1933). Future trading in butter and eggs. *Journal of Farm Economics*, 15(4), 670–675.
- Brunsson, N., & Jacobsson, B. (2000). *A world of standards*. Oxford: Oxford University Press.
- Callon, M. (2007). What does it mean to say that economics is performative. In D. MacKenzie, F. Muniesa, & L. Siu (Eds.), *Do economists make markets? On the performativity of economics*. Princeton: Princeton University Press.

- Callon, M. (Ed.). (1998). *The laws of the market*. Oxford: Blackwell.
- Callon, M., Méadel, C., & Rabeharisoa, V. (2002). The economy of qualities. *Economy and Society*, 31(2), 194–217.
- Chamberlin, E. (1948). *The theory of monopolistic competition, a re-orientation of the theory of value*. Cambridge: Harvard University Press.
- Crane, D., & Bovone, L. (2006). Approaches to material culture: the sociology of fashion and clothing. *Poetics*, 34, 319–333.
- Crick, M. (1982). Anthropology of knowledge. *Annual Review of Anthropology*, 11, 287–313.
- Davis, F. (1992). *Fashion, culture and identity*. Chicago: The University of Chicago Press.
- Entwistle, J. (2002). The aesthetic economy: the production of value in the field of fashion modeling. *Journal of Consumer Culture*, 2(3), 317–340.
- Farris, P. (1960). Uniform grades and standards, product differentiation and product development. *Journal of Farm Economics*, 42(4), 845–863.
- Faulkner, R. (1983). *Music on demand. Composers and careers in the hollywood film industry*. New Brunswick: Transaction Books.
- Favereau, O., Biencourt, O., & Eymard-Duvernay, F. (2002). Where do markets come from? From (quality) conventions!. In O. Favereau, & E. Lazega (Eds.), *Conventions and structures in economic organization: Markets, networks and hierarchies* (pp. 213–252). Cheltenham: Edward Elgar.
- Fligstein, N., & Dauter, L. (2007). The sociology of markets. *The Sociology of Markets, Annual Review of Sociology*, 33, 105–128.
- Fligstein, N., & Mara-Drita, I. (1996). How to make a market: reflections on the attempt to create a single market in the European union. *The American Journal of Sociology*, 102(1), 1–33.
- Frank, R. (1985). The demand for unobservable and other nonpositional goods. *The American Economic Review*, 75(1), 101–116.
- Frank, D., & Meyer, J. (2007). University expansion and the knowledge society. *Theory and Society*, 36, 287–311.
- Gaumnitz, E. W. (1933). An indication of seasonal variation in quality of eggs on terminal markets. *Journal of Farm Economics*, 15(3), 573–574.
- Geanakoplos, J. (1992). Common knowledge. *Journal of Economic Perspectives*, 6(4), 53–82.
- Geertz, C. (1992). The bazaar economy: Information and search in peasant marketing. In M. Granovetter, & R. Swedberg (Eds.), *The sociology of economic life* (pp. 225–232). Boulder: Westview.
- Giddens, A. (1984). *The constitution of society, outline of the theory of structuration*. Berkeley: University of California Press.
- Goffman, E. ([1963] 1968). *Stigma, Notes on the Management of Spoiled Identity*. Ringwood: Penguin Books.
- Granovetter, M. (1978). Threshold models of collective behavior. *American Journal of Sociology*, 83, 1420–1443.
- Gregory, P. (1948). Fashion and monopolistic competition. *The Journal of Political Economy*, 56(1), 69–75.
- Hayek, F. v. (1945). The use of knowledge in society. *The American Economic Review*, 35(4), 519–530.
- Heidegger, M. (2001). *Sein und Zeit*. Tübingen: Max Niemeyer Verlag.
- Husserl, E. (1992). *Die Krisis der europäischen Wissenschaften und die transzendente Phänomenologie*. Hamburg: Felix Meiner Verlag.
- Jacob, J., Miles, R., & Mather, B. (2002). Egg quality. In Florida (Ed.): University of Florida.
- Kennedy, M. (2005). Behind the one-way mirror: refraction in the construction of product market categories. *Poetics*, 33, 201–226.
- Kirzner, I. (1973). *Competition and entrepreneurship*. Chicago: Chicago University Press.
- Knight, F. (1921). *Risk, uncertainty and profit*. Boston: Houghton Mifflin Company.
- Knorr Cetina, K. (1999). *Epistemic knowledge, how the sciences make knowledge*. Cambridge: Harvard University Press.
- Knorr Cetina, K. a. B. (2002). Global microstructures: the virtual societies of financial markets. *American Journal of Sociology*, 107(4), 905–950.
- Knorringa, P. (1995). *Economics of collaboration in producer-trader relations, transaction regimes between markets and hierarchy in the agra footwear cluster*. Den Haag: CIP-DATA, Koninklijke Bibliotheek.
- Lie, J. (1997). Sociology of markets. *Annual Review of Sociology*, 23, 241–260.
- Manuel, H. (1915). The use of objective scale for grading handwriting. *The Elementary School Journal*, 15(5), 269–278.
- Marshall, A. (1920). *Industry and trade, a study of industrial technique and business organization; of their influences on the conditions of various classes and nations*. London: Macmillan.

- McCracken, G. (1988). *Culture and consumption: New approaches to the symbolic character of consumer goods and activities*. Bloomington and Indianapolis: Indiana University Press.
- Noles, R. K., & Roush, J. R. (1962). Consumers' egg preferences and their relationship to united states quality standards. *Illinois Agricultural Economics*, 2(1), 21–26.
- Podolny, J. (2005). *Status signals, a sociological study of market competition*. Princeton: Princeton University Press.
- Powell, W., & Snellman, K. (2004). The knowledge economy. *Annual Review of Sociology*, 30, 199–220.
- Power, M. (2007). *Organized uncertainty, designing a world of risk management*. Oxford: Oxford University Press.
- Pratt, A. (2002). Hot jobs in cool places: the material cultures of new media product spaces, the case of the south of the market, San Francisco. *Information, Communication and Society*, 5(1), 27–50.
- Reeves, C., & Bednar, D. (1994). Defining quality: alternatives and implications. *The Academy of Management Review*, 19(3), 419–455.
- Rosa, J., Porac, J., Runser-Spanjol, J., & Saxon, M. (1999). Sociocognitive dynamics in a product market. *Journal of Marketing*, 63, 64–77.
- Schmidt, S., & Werle, R. (1998). *Coordinating technology, studies in the international standardization of telecommunications*. Cambridge: MIT.
- Schütz, A. (1964). *Collected articles II, studies in social theory*. The Hague: Nijhoff.
- Scott, A. (2005). *On hollywood, the place, the industry*. Princeton: Princeton University Press.
- Simmel, G. (1923). *Soziologie, untersuchungen über die formen der vergesellschaftung*. München und Leipzig: Duncker und Humbold.
- Simmel, G. (1971). Fashion. In D. Levine (Ed.), *Georg simmel on individuality and social form* (pp. 294–323). Chicago: Chicago University Press.
- Skov, L. (2006). The role of trade fairs in the global fashion business. *Current Sociology*, 54(5), 764–783.
- Smelser, N., & Swedberg, R. (Eds.). (2005). *The handbook of economic sociology* (2nd edition). Princeton: Princeton University Press.
- Smith, W. (1895). IV. Knowledge. *Mind*, 4(16), 489–505.
- Smith, A. (1981). *An inquiry into the nature and causes of the wealth of nations*. Indianapolis: Liberty Press.
- Smith, C. (1989). *Auctions, the social construction of value*. Berkeley: University of California.
- Smith, C. (2007). Markets as definitional practices. *Canadian Journal of Sociology*, 32(1), 1–39.
- Spence, M. (2002). Signaling in retrospect and the informational structure of markets. *The American Economic Review*, 92(3), 434–459.
- Steiner, P. (2005). Economic knowledge. In J. Beckert, & M. Zafirovski (Eds.), *International encyclopedia of economic sociology*. London: Routledge.
- Storper, M. (1997). *The regional world, territorial development in a global economy*. New York: The Guilford.
- Swedberg, R. (1994). Markets as social structures. In N. Smelser, & R. Swedberg (Eds.), *Handbook of economic sociology* (pp. 255–282). Princeton: Princeton University Press.
- Swedberg, R. (2003). *Principles of economic sociology*. Princeton: Princeton University Press.
- Swedberg, R. (2005). Markets in society. In N. Smelser, & R. Swedberg (Eds.), *Handbook of economic sociology* (pp. 233–253). Princeton: Princeton University Press.
- Velthuis, O. (2005). *Talking prices, symbolic meanings of prices on the market for contemporary art*. Princeton: Princeton University Press.
- Warde, A. (2002). Production, consumption and 'cultural economy'. In P. Du Gay, & M. Pryke (Eds.), *Cultural economy, cultural analysis and commercial life* (pp. 185–200). London: Sage.
- Weber, M. (1922). *Wirtschaft und Gesellschaft. In Grundriss der Sozialökonomik, III Abteilung*. Tübingen: Verlag von J.C.B. Mohr.
- Weber, M. (1946). From Max Weber: Essays in sociology. In H. Gerth & C. Wright Mills (eds). London: Routledge.
- Weber, M. (1968). *The protestant ethic and the spirit of capitalism*. London: Unwin University Books.
- Werle, R., & Iversen, E. (2006). Promoting legitimacy in technical standardization. *Science, Technology & Innovation Studies*, 2, 1939.
- White, H. (1981). Where do markets come from? *The American Journal of Sociology*, 87(3), 517–547.
- White, H. (1992). *Identity and control, a structural theory of social action*. Princeton: Princeton University Press.
- White, H. (1993). Markets in Production Networks. In R. Swedberg (Ed.), *Explorations in economic sociology* (pp. 161–175). New York: Russell Sage Foundation.

- White, H. (1995). Social networks can resolve actor paradoxes in economics and in psychology. *Journal of Institutional and Theoretical Economics*, 151(1), 58–74.
- White, H. (2002). *Markets from networks, socioeconomic models of production*. Princeton: Princeton University Press.
- Wilson, T. (2000). *Battles for the standard: Bimetallism and the spread of the gold standard in the nineteenth century*. Aldershot: Ashgate.
- Woolsey Biggart, N., & Beamish, T. (2003). The economic sociology of convention, habit, custom, practice, and routine in market order. *Annual Review of Sociology*, 29, 443–464.
- Yakubovich, V., Granovetter, M., & McGuire, P. (2005). Electric charges: the social construction of rate systems. *Theory and Society*, 34(5–6), 579–612.
- Zuckerman, E. W. (1999). The categorical imperative: securities analysts and the illegitimacy discount. *The American Journal of Sociology*, 104(5), 1398–1438.

Patrik Aspers is Research Fellow at the Max Planck Institute for the Study of Societies in Cologne, Germany, and Associate Professor of Sociology at the Department of Sociology, Stockholm University. His research is focused on economic sociology and sociological theory.