

EXPERTS IN ORGANIZATIONS: THE POWER OF EXPERTISE

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ABSTRACT

This paper focuses on the power of expertise in modern societies and examines the nature of expert knowledge in organizations. It approaches expertise as a decisive resource in organizational value creation and treats experts as influential actors in organizational decision-making. The paper is organized as follows. It begins by addressing the power of expertise in today's societies and characterizes expert knowledge as one of the main means with which modern economies create wealth. It proceeds with a synopsis of contemporary research on the theory of expertise and presents different approaches to expert knowledge. The paper further focuses on experts as organizational actors and analyzes their role in organizational action. Finally, it concentrates on expert knowledge in

modern organizations and discusses the managing of experts and their expertise within the organizational context.

INTRODUCTION

In an economy where product variety and innovation are vital, knowledge and expertise are the means with which business today creates value. While knowledge is the basis for every activity a company performs and can be found everywhere in and around an organization, the members of that organization are continually selecting and converting information to knowledge and expertise and then using that expertise to make decisions and shape events within the corporation. Since the organizational performance is strongly influenced by its actors' available expert knowledge within the organizational context, this paper approaches expertise as a decisive resource in organizational value creation and treats experts as influential actors in organizational decision-making. The paper argues that the organizational capacity for effective action is limited mainly by the availability and application of such expert knowledge and that the competence of an organization depends strongly on the effective management of its expert resources.

To develop and consider these arguments, the article is organized as follows. It begins by addressing the power of expertise in today's societies and characterizes expert knowledge as one of the main means with which modern economies create wealth. It proceeds with a synopsis of contemporary research on the theory of expertise and presents different approaches to expert knowledge. The paper further focuses on experts as organizational actors and analyzes their role in organizational action. Finally, it concentrates on expert knowledge in modern organizations and discusses the managing of experts and their expertise within the organizational context.

THE POWER OF EXPERTISE WITHIN MODERN ECONOMIES

In modern economies, the increasingly massive importance of knowledge is widely recognized to be fundamentally changing the nature of economic work (Alvesson, 1995; Davenport & Prusak, 1998; Drucker, 1993; Huseman & Goodman, 1999; North, 1998; Sparrow, 1998; Stehr, 1994; Sveiby, 1998). While the traditional production and exchange factors of an economic system, capital and physical work, are losing their significance, knowledge is instead becoming more of the foundation of and orientation for human activity than ever before; it guides all interactions, relationships, and dependencies among individuals and institutions in today's economies. Knorr Cetina indicates that knowledge is playing a more significant role and is increasingly influencing economic work with the following statement:

We can no longer assume today what differentiation theory has proposed for so long: that knowledge production is centered in a particular function system, science. Knowledge production is everywhere; for example, every major bank employs scores of "analysts", "specialists", and "economists" who produce credit analyses, analyses of stock and bond markets, of regional economies, whole countries, infrastructures and the like, and who generally map the world in which the bank moves (Knorr Cetina, 1997: 386).

These new qualities of knowledge production, symbolization, and distribution cause a change in the knowledge bases of most human activity. They are promoting a transformation from capital-oriented institutions to modern organizations highly dependent on knowledge. They further strengthen the significance of organizations for both economic and social life. Organizations become thus the dominant mode of coordinating human activities in a stable way across space and time.

As a particular economy develops, the relationship among society, experts, and the distribution of knowledge evolves according to a certain pattern (Berger & Luckmann, 1969). In a society with a *simple* social distribution of knowledge, there exists almost no specialization of knowledge and expertise; thus, every adult is in full property of the available general knowledge and is able to solve nearly all of the problems in his or her daily life. Only a few social actors are experts (for example, the priest, the smith, the doctor) and every adult knows when, where, and how to turn to these few experts. In a society with a more *complex* social distribution of knowledge, general knowledge is not distributed equally, but highly unequivalently; thus, not everyone has necessary knowledge and those who have it have it in vastly differing amounts. The members of the society typically develop different social competences and relatively divergent structures of relevance. An individual actor therefore does not have a good overview of the totality of general knowledge. Given the ever-continuing division of labor, the balance between general knowledge and specific knowledge is moving in favor of the latter. To be merely competent in most situations in daily life requires an increasing degree of specialized knowledge.

In a *modern* economy characterized by a complex social distribution of knowledge, there are always social actors who have specific knowledge or expertise at their disposal that other actors do not, but that those other actors need and refer to as soon as they are confronted with problems and questions beyond their own competencies. Knowledge production and distribution is specialized and fragmented and experts play a significant role as generators,

holders, and distributors of expert knowledge. The nesting of knowledge structures in social structures necessarily produces new conditions in terms of social life and requires new references for human action and its diagnosis, analysis, and evaluation. The interaction between knowledge and economic work means that the manipulation of *things* is slightly losing its significance and that the manipulation of *sense* and *meaning* is instead gaining importance in economic work (Stehr, 1998).

The traditional order for the orientation and navigation of social life is no longer supported; the collective impact of knowledge on the actions of individuals and organizations instead implies the emergence and growth of totally new principles of societal production and reproduction. According Wilke (1998), there are two main principles that define such a knowledge society. Firstly, information processing, symbolic analysis, and expert systems for the production and reproduction of society are of prime importance compared to other defining variables, because the structures and processes of both the material and the symbolic constitution of society are highly imbued with knowledge-dependent operations. Secondly, innovation becomes an essential everyday component of knowledge work because it subjects knowledge and expertise to a continual process of transformation and revision; today's bodies of professional knowledge thus differ from older knowledge stores in their dynamic revision and adaption of the available expertise. As a result, modern economies are conscious of the necessity of deep, specialized knowledge for societal value creation, and the reorganization of social processes in a knowledge society is determined primarily by the availability and application of expert knowledge, whereby experts have a large impact as social actors in shaping the constitution of society.

Because the relevance of expertise for both collective and individual decision-making is widely recognized, today's knowledge-intensive economies are assisted by an enormous, ever-increasing number of knowledge professions, which are commonly known as consultants, advisors, counsellors or, more precisely, as experts (Bromme & Rambow, 1998; Dewe, 1998; Drucker, 1993; Macdonald, 1995; Sharma, 1997). These knowledge professionals are not only increasingly enlisted by governments, political institutions, global corporations, or big non-profit organizations (Smith, 1991), but also by small corporations and non-economic institutions, and even by an increasing number of individuals (Stehr, 1998). The number of experts in modern economies, and thus their influence, is even highly underestimated, as Stehr (1998) states, because of the fact that most professionals drawing on deep stores of specialized knowledge do not necessarily hold the labels mentioned above,

such as like expert, advisor, or consultant, and are instead active in traditional professions and work, for example, as teachers, professors, economists, bankers, lawyers, nurses, social workers, or clergy. Driven by the developments in technology, engineering, and the life sciences, the modern knowledge society – or, as Beck (1986) calls it, the "risk society" – is aided by and relies on the activity of experts. They support task-oriented problem solving by generating and distributing expertise as a specialized form of abstract knowledge. Thus, expertise constitutes a decisive means for creating value in contemporary societies because expert knowledge is necessary for the explanation, evaluation, and control of production processes and their consequences for human life.

A THEORY OF EXPERTISE

Because one rarely finds explicit definitions of an expert or expertise in the literature on expert human knowledge, the definitions are mostly gleaned implicitly and depend on the people (experts) who are the focus of the various studies. As the term "expert" is rooted in the Latin adjective "expertus", meaning experienced in and with something, the contemporary notion of expertise more conveys the idea of training and theoretical insight than of practically acquired knowledge (Smith, 1991). While expertise commonly describes the report of an expert on a subject-specific problem, it also means the expert knowledge of the particular expert (Kleimann, 1996). Generally, the meaning of expert and expertise are only vaguely defined and determined through an implicit agreement among the authors doing research on this subject. Experts are understood in this context as people who have deep, specialized knowledge of a subject, who are tested and trained, especially by experience. The criteria granting a social actor the status of expert changes from study to study; sometimes, those people are described as experts who have much professional work experience, sometimes, they are people who enjoy an international reputation in their subject (Gruber & Ziegler, 1996). Because of this lack of precise definition of forms of expert knowledge within the scientific community, the field of research focusing on expertise and experts is not guided by generally accepted principles (Gruber & Ziegler, 1996; Schulz, 1998). It is characterized by a heterogeneity of scientific disciplines, methodological processes, and resulting arguments or opinions concerning the roots of expertise and the definition of experts. However, there are two main contradictory lines of argumentation identified in this paper that dominate the current discussion on forms of expert knowledge: a psychological focus versus a sociological focus.

Since its beginning as a discipline, *psychology* has concentrated on the study of outstanding performance of human activity, and therefore also studies excellent performance by people distinguished in different areas, commonly mathematics, chess, languages, or arts. Especially the subfield of cognitive psychology focuses on the cognitive and motivational characteristics of individual actors that produce excellent, distinguished human performance. A psychological perspective of expertise typically concentrates on the intellectual or cognitive characteristics of a particular individual that promote the development of expert knowledge. Krems (1994, 1996), as one of the dominant researchers in cognitive psychology, confers the grade of expert to a person who fulfills three requirements. The first criterion is *efficiency*. An expert differentiates himself or herself from other people by performing an above-average number of tasks based on a below-average expenditure, in terms of time, cost, or error rate. Secondly, an expert position is conferred to a person with *subject-specific knowledge*. Experts possess both extensive and differentiated forms of knowledge concerning facts, rules, and thinking procedures within a certain subject; further, they also know the methods, procedures, and techniques for dealing with novel tasks and for solving new problems that arise within their field of knowledge. The third condition for producing and maintaining expert knowledge is *experience*. Only long-term, mostly labor-intensive study of a particular subject enables people to acquire the deep, specialized forms of knowledge that qualify them for the expert status.

Clearly, the fundamental basis of expert knowledge is the quality and extent of the individual knowledge stored and accumulated in human memory, as well as its use in analysing field-specific tasks and solving context-oriented problems. Krems consequently distinguishes the thinking processes of experts through such characteristics as the formation of bigger knowledge units (called as "chunks"), which are more abstract and complex than those formed by non-experts, the orientation toward the deep structures of a problem instead surface patterns, and therefore a stronger hierarchical order, more associative linking, and goal- or future-oriented processing instead backwards- or past-oriented movements. Within this view, the term expert is given primarily to a person who fulfills the criterion of maintaining excellent performance in a particular domain over a long period of time, thus excluding the accidental or singular high performance (Gruber & Ziegler, 1996). Beside this explicitly acceptance of the performance criterion, psychology also deems the quality of advanced experience essential for an expert in its definition. It differentiates the expert from the novice, who is understood as somebody being new to a subject and not yet

having had the appropriate experiences, someone who is consequently a beginner compared to the advanced and professional expert.

The other discipline that investigates expertise is *sociology*. A sociological framework focuses less on the individual actor and more on the societal part of human action. This study of the societal part is understood as the description of the forms, contents, and meanings that characterize all social action, and, if possible, also the explanation of them. Because the relationship between individuals and society and between action and structure are the objects of sociological investigation, sociologists focus on the subject of expert knowledge by analyzing the formation, maintenance, and also loss of expert positions in modern societies (Hesse, 1998; Hitzler, Honer & Maeder, 1994; Nennen & Garbe, 1996; Rammert, Schlese, Wagner, Wehner & Weingarten, 1998). They attempt to clarify the role of experts in the production, acquisition, and distribution not only of knowledge, but also of work, income, power, and prestige within today's economies (Hesse, 1998). While expert knowledge is understood as a social pattern of acquisition and allocation of special forms of knowledge in the decision-making and problem solving of individuals and institutions, the basic unit of research is the social interaction process between expert and layperson or expert and client, and the main research questions are the why, where, and how of the formation of so-called expert positions in society.

Hitzler (1994, 1998), as one of the dominant proponents of a sociological theory of expertise, investigates the acknowledgment of social actors as experts within the community, and their competences at maintaining this status over time, comparing them to other actors who do not reach such a distinguished position or lose it quickly again. In studying expertise as a social pattern, the author finds a range of determinants that cause people to be accepted as experts in any given subject: having great experience, knowing a lot about a field, understanding interrelationships, knowing the world, having taken risks, having gotten through something special, being able to translate something, thus having special, non-imitable competences in any field of life (Hitzler, 1994). Hitzler further questions why a person is sure that an expert has this particular knowledge or distinguished competence at disposal, in other words which characteristics attest to somebody's expert position, and comes up to the following phenomena: talking in a specific way, using certain emblems and symbols, presenting a specific appearance, carrying out specific rituals or antirituals, and so on (Hitzler, 1994). Most of these are qualities and activities of displaying, acting, and promoting oneself within a social context.

Consequently, a person considers another person an expert when he or she is of the opinion that the expert has more and different knowledge at his or her disposal, as well as the ability to locate and order it competently, compared to oneself. Experts are defined as social actors who own and maintain a monopoly or oligopoly position regarding the production and interpretation of expertise, and who believe in and state the existence of criteria known only to themselves for discerning and evaluating expertise (Hitzler, 1998). Competence, concerning any subject, is understood as a social attribution based on noted and noticeable qualities of behavior and supposed characteristics; an expert is seen as a prototype of a legitimately accepted actor who is competent on any subject (Amann, 1994; Honer, 1994; Keller, 1994; Meier, 1994; Walter-Busch, 1994). Further, as competence and legitimation typically correlate with each other, an expert has to uphold the attributions of competence and legitimation as the relevant requirements of positioning and maintaining the role of an expert social actor.

When one compares the two theories of expertise, one notes that the psychological discipline concentrates on the individual characteristics of experts. It analyzes the qualities typical to the personalities of experts, to their professions or activities, and to their goals, procedures, and the results of their actions. The qualities considered in this research on expert action are deep, subject-specific knowledge that is applied systematically to task-oriented problems, that has been gained through intensive experience in that subject, and that permanently enables an outstanding level of activity and with it excellent performance by the person in its possession. The sociological discipline adopts an interpersonal analysis of expertise in distinguishing experts through their specific forms of social action. It focuses on relational qualities of experts as social actors by analyzing expertise as the attribution of the position and role of expert in the social context. It investigates what exactly a person has to do within the social context to be accepted as an expert and to have his or her competence and legitimation to produce and distribute expertise attested to by others, and thus be recognized by others for the particular distinguished competences of an expert position. Expertise is seen as a relational phenomenon since experts are defined only in relation to layperson as well as to client. Looking at both lines of argument and scientific discussion on expert knowledge highlights a remarkable lack of clarity on the precise definitions and meanings, as well as exact applications, of the terms expertise, expert knowledge, expert, and layperson, although the term expert is quite familiar and is commonly used in daily language.

EXPERTS AS ORGANIZATIONAL ACTORS

In the face of the massive importance of knowledge in society and the attendant change in the conditions for and restrictions on value creation, the nature of economic work is fundamentally changing. Advanced economies are characterized by an increasing complexity of goods and services, a fact that is mirrored, for example, in the high stakes linked with research and development, the issues raised by the accelerated speed of product and market renewal, and the significance of creating preconditions for strategic action within a globalized environment. Because the degree of complexity not only in products and services but also in technology and processes has increased to such an extent, it is no longer possible for organizational actors at the same time to be technicians, marketers, and leaders. As a consequence, executives, as the key decision-makers in organizations, are forced to make organizational decisions on matters that are actually outside their competence, as Hansen points out in the following statement:

The more complex a product is, the more entrepreneurial decisions have to be made on the basis of second-hand information that business people themselves are unable to check (Hansen, 1996: 43).

This new economic situation is characterized, according Hatchuel and Weil (1995), as "variety economy", meaning a multiplication of types, species, and kinds within modern societies, caused by the constant creation of new varieties of products and services. Possible strategic responses to such complexity are the current emphasis in organizational action on education and training as well as the emergence and growth of expert systems enabling the institutionalizing of expertise in organizational decision-making.

Because modern organizations are forced to produce wealth primarily on the basis of such cognitive competences as creativity and expertise, the relevance of both collective and individual forms of high-quality knowledge is considerably elevated (Alvesson, 1995; Huseman & Goodman, 1999; Sparrow, 1998; Sveiby, 1998). This reliance on cognitive competences implies that both knowledge and the people who hold the knowledge become precious commodities for organizational action (Hatchuel & Weil, 1995; Pfiffner & Stadelmann, 1994; Rammert, Schlese, Wagner, Wehner & Weingarten, 1998; Schäffer, 1996; Wilke, 1998): expert knowledge in terms of its organized, specialized, and elusive form of availability and experts as the sole source of expertise in organizational decision-making. As a consequence, a new definition of the nature and dynamics of knowledge is necessary, one that addresses the individual practices and routines of social actors that are then transformed

into valuable products and services. This new definition leads to a new organizational framework, one that considers organizations to be actor-oriented, competence-based institutions distinguished by the scope and quality of the elusive bodies of expertise and the strength of those bodies in generating, storing, and applying knowledge in organizational decision-making. Such a knowledge-intensive organization is characterized, according to Alvesson, by the following qualities:

- significant incidents of problem solving and non-standardized production;
- creativity on the part of the practitioner and the organizational environment;
- heavy reliance on individuals (and less dependence on capital) and a high degree of independence on the part of practitioners;
- high educational levels and a high degree of professionalization on the part of most employees;
- traditional concrete (materials) assets are not a central factor. The critical elements are in the minds of employees and in networks, customer relationships, manuals and systems for supplying services;
- heavy dependence on the loyalty of key personnel and – this is the other side of the picture – considerable vulnerability when personnel leave the company (Alvesson, 1995: 8).

In Alvesson's approach, the relationship between knowledge and the individuals is emphasized instead of the relationship between knowledge and the whole organization. He points out the individual actors as the primary source of expert knowledge within organizations. As organizational expertise is mainly related to the individuals, it is therefore less intrinsic to machines or material technologies and less associated with organized work processes or organizational routines (Alvesson, 1995). Consequently, organizational decision-making is highly dependent on individual actors who are distinguished by their advanced education and experience. These organizational experts perform the essential task of producing, using, and distributing high-quality forms of knowledge for use in addressing subject-specific issues. Therefore, they constitute a unique source of organizational expertise.

In asking about the process of legitimation, or why a social actor gains and holds an expert position with regard to a particular issue, two perspectives are differentiated on the establishment of expertise (Hesse, 1998): an *external* focus in terms of distinction from the layperson and an *internal* focus in terms of concretization of the content of the expertise. An external distinction between an expert and an amateur position is always context-dependent

and perspective-determined, especially because both terms, expert and layperson, encompass not only descriptive qualities of the two social functions, but also the evaluative or normative characteristics of each social position. An internal distinction between experts and non-experts focuses on the determination and differentiation of what exactly constitutes expert knowledge. Since the disagreement about the range and quality of expert knowledge has not been resolved in contemporary literature on expertise, there are three typical positions on the scope of experts found (Kleimann, 1996). The first characterizes the expert as a specialist, or a professional, within one narrowly restricted field of rare, sought-after knowledge, who is therefore distinguished by the possession of that highly specialized knowledge (*special knowledge*). The second describes the expert as a professional within a broader, extensive field of rare knowledge and characterizes an expert as having a broad, synoptic view of the highly specialized knowledge of this field (*overview knowledge*). The third depicts the expert as a generalist, or a professional, regarding questions at the limits of the field of special knowledge and asserts that an expert through broad general knowledge (*general knowledge*). As the term expert or other descriptions such as scientist, professional, specialist, or generalist, are mostly understood as synonyms in the scientific discussion, they are used interchangeably to describe an expert as the opposite of a layperson or client. There is just as little agreement on a definition of the term expert as there is a common understanding about what expertise consists of. The description of the expertise's content is ambiguous, variable, even contradictory. A clear classification of expert positions is therefore still lacking in the research focusing on expert knowledge.

Because the performance of modern organizations is strongly influenced by the available expertise of organizational actors, most key decisions in organizations must be made relying primarily on second-hand information and knowledge (Beach, 1997; Ortmann, 1995; Ortmann, Windeler, Becker & Schulz, 1990). Organizational decision-makers are forced to fall back on the excellent competences and specialized knowledge of experts in justifying their decisions. Regarding the impact of experts on the executives or clients, there are two views differentiated (Kleimann, 1996). On the one hand, the expert restricts himself or herself to making the proper usable, subject-specific knowledge available to the client's problem. On the other hand, a further function of the expert is to provide a bridge between the subject-specific privileged knowledge that distinguishes the expert position and the knowledge of the client, who is a layperson and who does not specialize in the particular task-specific problem. Both positions analyze the authorized influence of experts on issues not directly

connected with their own field of expertise, but the two lines of argument differ in the scope allowed for the expansion of professional competence and influence, as well as in the necessity of the integration of different arguments and opinions by the expert. Generally, by deferring to experts and their expertise, executives are able to legitimize their decisions because expert knowledge usually confers an objective correctness, or at least a relative optimality of the desired outcome (Hitzler, 1998).

Given these special characteristics of the relationship between experts and non-experts, Hitzler (1994) conceptualizes an expert position in any subject-specific task as a relational phenomenon. On the one hand, an expert exists in relation to the *layperson*, who defines the scope of the expert knowledge with her or his missing or unstructured knowledge base on the subject in question. Laypersons are therefore social actors who give the expert the right to provide plausible and internally consistent expertise and who generally believe in the objectivity of expertise. On the other hand, an expert exists in relation to the *client* or *decision-maker* who defines the scope of action and influence of the expert position. As the expert has per se the position of the third party, the particular constellation between expert and client determines the political potential of the expert knowledge – political in terms of the constellation of interactions that have to be defined politically. Consequently, there is no layperson without an expert and no expert without a decision-maker. Further, in the same way as a layperson stops being a layperson if he or she becomes an expert himself or herself, an expert stops being an expert if he or she becomes a decision-maker. Obviously, the role of experts in organizational decision-making consists primarily of informing and consulting the key decision-makers in organizational action. Although experts possess a privileged role as knowledge interpretators, they legitimate their expert function within a decision-making process only by submitting an objective testimony about a neutral, subject-specific task. Despite their powerful position as monopolists of necessary knowledge, experts confine their particular competence solely to dealing with tasks and problems that they have not themselves caused or contributed to and without taking any responsibility for the decisions made based on their input.

MANAGING EXPERTISE WITHIN ORGANIZATIONS

Although the question of organizational expertise itself is not new and organizations are constantly looking to boost excellent competences through recruitment or training, the significance and influence of specialized knowledge has increased in today's institutions. As

a result of the ever-increasing labor division and deeper knowledge specialization in society, the balance between general knowledge and specialized knowledge is changing in favor of the latter (Beck, Giddens & Lash, 1996; Berger & Luckmann, 1969) – a change which causes the following implications for modern economic institutions (Hitzler, 1998): a more complex knowledge structure, a less centralized knowledge base, and a more significant role for experts. The distinction between the professional expert and the knowledgeable amateur hardens, the dependence of the layperson on the expert is increasing. In spite of the powerful new position of the expert in society, every single actor is generally a layperson in most fields of specialized knowledge and simultaneously an expert in only one or a few subjects, a fact that limits the scope of influence of particular experts.

Since modern organizations rely to an increasing degree on the preparation and application of expertise in solving of their problems, the strategic use and management of expert knowledge has never been more urgent and critical for organizational success than at the end of the millenium, as Alvarez emphatically states:

The extreme complexity of managerial tasks – highly interdependent, contextual and systemic, relatively understandardized, changeable and developing, combining both the maintenance of structures and their change, rarely generating visible and separable inputs (Whitley, 1989) – demands the use of several types of knowledge by practitioners: from technical knowledge to decision-making habits, to organizational savvy, to assumptions about the social features of human nature (Alvarez, 1996: 81).

Clearly, traditional rules and methods of organizational success are no longer valid, making a new frame of reference necessary for the management of knowledge-intensive business. As managerial tasks include the practices and procedures of production, reproduction, and transformation of organizations (Clegg & Palmer, 1996), managers are confronted with the handling of different forms of elusive knowledge. Thus, the management of modern organizations is challenged by the heterogeneity of expert competences and specialized knowledge, and by how integrating knowledge into organizational expertise. Expertise, as it is referred to here, has not, as Hatchuel and Weil argue, "necessarily been developed systematically or subjected to academic control procedures; it can be constituted in a variety of ways and base its legitimacy on complex mechanisms" (Hatchuel & Weil, 1995: 4). Further, as expertise in organizations does not mean an information system or a database representing a set of theories and questions on which decision-makers in organizations can

base their activities, the authors specify the meaning of organizational expertise in the following statement:

In corporate life, new expertise is constantly being created through the entire range of possible activities, from material processes to commercial or legal exchange, interpersonal relations or modes of organization. In short, the question of expertise in firms is clearly not limited to the fields generally referred to as technological (Hatchuel & Weil, 1995: 4).

Consequently, while experts in organizations are identified as those professionals with knowledge, who gained their specific knowledge through professional education and study, expertise within organizations refers to different fields of specialized knowledge that is held by organizational actors and that is based on deep professional knowledge on any issue important to organizational action (Brosziewski, 1994; Eberle, 1994; Pfiffner & Stadelmann, 1994). According to Rothe and Schindler (1996), this professional knowledge is distinct from the general knowledge an individual acquires during his or her childhood and youth through his or her own experience and education. It is distinguished by three qualities, according to Hacker (1992, 1993) – characteristics that are valid and relevant for every profession: (1) knowledge on the meaning of situational characteristics, on causes for changed facts, on qualities and regularities of technological processes, materials, tools etc.; (2) knowledge on work processes and techniques, on the goals in whose service they were created, and on the consequences of work actions; (3) knowledge on the organizing and planning of work actions in the sense of meta procedures. Obviously, in addition to relying on broader, profession-specific knowledge, experts in organizations depend on the particular representation of that knowledge in their memories with respect to a specific context, as it has already been described in the above section on the psychological focus on expertise (Krems, 1994, 1996).

Although expertise has been described and explained mostly with experts' cognitive systems of information processing, expertise is restricted not only to cognitive variables, as Gruber and Mandl (1996) point out in a study based on earlier work by Klemp and McClelland (1986) on the analysis of managerial expertise. They studied the characteristics of various successful managers and found eight qualities through which more successful managers can be differentiated from less successful ones: (1) planning and causal thinking; (2) the search for diagnostic information; (3) conceptualizing and synthetic thinking; (4) the desire for influence and the urge for power; (5) directive power; (6) collaborative power

(influence within groups); (7) symbolic influence; and (8) self-confidence. Consequently, success in developing and maintaining expertise is determined by the cognitive characteristics, motivational qualities, and self-concept of the particular expert.

While today's organizations are typically characterized by an ongoing specialization of knowledge, expert knowledge changes its content and structure within the organizational context dynamically. As the availability of general knowledge strongly decreases with the narrowing scope of specialization, the fields of subject-specific knowledge develop their own internal qualities and constraints. Since expertise is more and more related only to particular issues within a subject of special knowledge, the connection between the other issues of the same field is lost not only from the layperson's view, but also from the expert's vantage point. Experts are forced to concentrate only on narrow defined tasks and no longer have an overview of even their own subject of specialized knowledge. This lack of an overview has implications for the managing of organizational expertise because the objectivity and neutrality of expertise in organizational action can no longer be taken for granted, all of which casts doubt on the role of the expert as a unique source of neutral facts and objective statements for organizational decision-making (Brosziewski, 1994; Mohr, 1996; Rammert, Schlese, Wagner, Wehner & Weingarten, 1998).

While laypersons and clients generally believe in the clear and definite nature of expertise, i.e. that it represents unambiguous, objective facts, and do not fully understand the content of that expertise, the interpretation of expertise falls mostly to other experts. However, the nature of expertise is ambiguous and its meaning is highly dependent on how it is interpreted, accepted, and assimilated by decision-makers. Expertise is received and used in relatively flexible way, at different times, under different conditions, and depending on different interests at stake, making it obvious that expert knowledge has only the one function of legitimizing the decision that was made of the decision-maker (Hitzler, 1998). Given the loss of unambiguous, definite forms of any knowledge and the increasing political influence of experts, a great deal of expert knowledge leads to contradictory findings on the same subject-specific issue. This occurrence is called an expert dilemma and has initiated a broad discussion on a crisis of experts and expertise in contemporary economies (Nennen & Garbe, 1996). As modern organizations rely to an increasing degree on the preparation and application of expertise for the solution of their problems, the controversial findings of experts make the decision-making and opinion-forming processes more difficult and inject

considerable tension into the relationship between experts and laypeople or expert and client.

CONCLUSIONS

In view of the significance of knowledge and expertise for modern economies, this paper has focused on the power of experts and their expert knowledge in contemporary organizations. Expert knowledge is defined here as organized form of specialized knowledge on any subject-specific task. It is produced, administrated, and distributed by highly educated and intensively trained social actors who are considered experts. Because specialized knowledge is increasingly necessary for both organizations and individuals in modern societies, the performance of an organization is strongly influenced by the availability and application of expert knowledge. As knowledge is the basis of every human activity and can be found everywhere in and around a business, only certain distinguished actors are relied on to select and convert information to knowledge and expertise for use in making decisions and shaping events in organizational action. Expert knowledge therefore represents a prime source of economic value, or an essential resource through which today's business creates value, and experts constitute a significant action pattern in organizational decision-making.

In the synopsis of contemporary research on the theory of expertise, a remarkable heterogeneity and disagreement on the meaning of expert knowledge has been demonstrated. Although the determination of the scope and range of expertise is a topic of much debate in scientific discussion, this work has identified two main schools of research investigating the definition of experts and their expert knowledge. The psychological approach, on the one hand, embraces a cognitive-oriented, individualistic understanding of expert knowledge. It defines expertise as a task-specific competence in problem solving that permanently enables a person to perform an outstanding cognitive activity, whose success is determined by particularly distinguished thinking processes resulting from that individual's brain capacity. The sociological approach, on the other hand, does not qualify a person as expert with any particular competences or specialized knowledge, but through the ability to make it clear to another person that one is in possession of such distinguished abilities. Expert knowledge is constituted primarily by knowledge of how to act or play the expert as well as by being authorized to provide instruction in a certain domain and knowing how to reject the claims of directives from others within the field of knowledge successfully. Given the heterogenous and contradictionary lines of theoretical approaches to expert knowledge,

an integrated approach is obviously necessary in order to fully understand the phenomenon of expert knowledge, one which conceives of experts and their expertise by incorporating both psychological and sociological theories.

Characterizing contemporary societies by a remarkable, ongoing differentiation and specialization of knowledge, modern economic work is distinguished by a high degree of labor division and a growing intensity of specialized knowledge. Because most key decisions in organizations must rely on excellent competences and specialized knowledge from second-hand sources, today's organizations are forced to cope with experts as influential actors in their decision-making. While the traditional opinion defined an expert as someone who, based on his or her exceptional competence, was a genius, or at least a highly talented actor, today's view in principle gives every person the chance to become an expert within some domain, the only requirement being a long-term, labor-intensive occupation with the subject (Gruber & Ziegler, 1996). This less elite perspective of exceptional performance is linked to the democratization and popularization of expert knowledge as being within everyone's scope. While the competence of modern organizations is therefore strongly influenced by the available expertise of organizational actors, organizational performance is determined by the effective management of its expert resources. Executives in organizations are confronted with the challenge of handling different forms of elusive, but fragmented, knowledge and with integrating that knowledge in organizational action.

In view of the political power experts may possess when making decisions, the managing of expertise in organizations has to take the political reality of knowledge into account. Since knowledge creates power and power creates knowledge (Foucault, 1980; Townley, 1993, 1995), power plays and political dynamics are facts of life in modern organizations (Alvesson, 1996; Bolman & Deal, 1991; Clegg, 1989; Elvik, 1998; Hatch, 1997; Morgan, 1997; Neuberger, 1995b) and can have both negative and positive effects on decision-making effectiveness (De Dreu & Van de Vliert, 1997). Given scarce resources, ambiguous goals, increasingly complex technologies, and more sophisticated and unstable external environments, advanced economies are dominated by knowledge-intensive organizations as highly political entities, in which most of the goal-related efforts produced by organizational members are directly attributable to political phenomena. Fostering political processes in organizations and increasing the proportion of decision-making behavior that can be classified as political versus rational, the dominant impact of expert knowledge for organizational life contributes to the politization of modern organizations (Huber, 1998),

meaning a growing influence of political phenomena upon processes and results of organizational action.

Caused by this political potential of expert and their expert knowledge, the management of expertise in organizations must deal with a fragmented and diverse structure of expert knowledge, whose nature is highly context-dependent, whose content comprises not clear and absolute facts but ambiguous and relative interpretations, and whose significance is determined by the mutual relationship between expert, layperson, and client. Such a perspective depicts leadership based on expert knowledge as political in nature and focused on balancing and coordinating the interests of organizational members. Managing experts and their expertise must take a political theory of organizational action, its resources, actors, processes, and results into account. It requires rules and practices and a system of organization in which leadership focuses on opposing tensions between dualities such as individual vs collective, consensus vs conflict, power with vs power over, and cooperation vs autonomy. Consequently, the managing of organizational expertise, its diagnosis, analysis, and evaluation, requires an integrated framework that promotes not only an economic and social frame of reference, but, importantly, a political perspective of organizational reality.

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