

PERSONAL INITIATIVE: AN ACTIVE PERFORMANCE CONCEPT FOR WORK IN THE
21ST CENTURY

Michael Frese and Doris Fay

University of Giessen and University of Amsterdam

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Requests for Reprints should be sent to Prof. Dr. Michael Frese, Dept. of Psychology,
Otto-Behagel-Str. 10F, 35394 Giessen, Germany

e-mail: Michael.Frese@psychol.uni-giessen.de

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Abstract

This article reports on the development of a concept of personal initiative (PI). Personal initiative is a work behavior defined as self-starting and proactive that overcomes barriers to achieve a goal. It is argued that future workplaces will require people to show more PI than before, and that current concepts of performance and organizational behavior are more reactive than desirable. The facets of PI are developed along the lines of goals, information collection, plans, and feedback. Personal initiative enables people to deal with job difficulties more actively, for example, with stressors, unemployment, career changes, or becoming an entrepreneur. High PI changes the work situation of employees and relates to success as an entrepreneur. Personal initiative is seen to sharpen and partly modify the concepts of reciprocal determinism, organizational citizenship behavior, innovation, entrepreneurship, work performance, intrinsic motivation, and self-regulation.

George Bernhard Shaw (*Mrs. Warren's Profession* 1893): "People are always blaming their circumstances for what they are. I don't believe in circumstances. The people who get on in this world are the people who get up and look for the circumstances they want, and, if they can't find them, make them."

"There are three types of people in the world: those who make things happen, those who watch things happen, and those who wonder what happened." (Mary Kay Ash, 1995, p. 151).

Personal initiative (PI) is work behavior characterized by its self-starting nature, its proactive approach, and by being persistent in overcoming difficulties that arise in the pursuit of a goal (see Frese, Kring, Soose, & Zempel, 1996; Frese, Fay, Hilburger, Leng, & Tag, 1997). One consequence of such an active approach is that the environment is changed (if ever so slightly). This distinguishes it from a passive approach characterized by the following features: doing what one is told to do, giving up in the face of difficulties, not developing plans to deal with future difficulties, and reacting to environmental demands. We shall discuss the concept in more detail below.

In presenting our concept of active performance, we argue that work and organizational psychology has often emphasized a reactive concept of performance. Traditionally, the employee has often been viewed as somebody to be socialized into the job and into the company culture ("broken in," Van Maanen, 1976). The task has to be analyzed so that the person can be matched to it (as in selection and training). The task is taken as the starting point that is adopted by the employee, and good performance means that the employee does the task as prescribed. Work characteristics (e.g., those suggested by Hackman & Oldham (1975): autonomy, feedback, task significance, task identity, skill variety) tend to be conceptualized as organizational givens to which the person adjusts. Feedback is provided by the organization and the tasks and is not developed by the individual. Goals are set by the organization or the supervisor and not by the employee. From this perspective, training has to ensure that the employees know what they have to do. Surprisingly, even a concept that goes beyond role requirements, such as Organizational Citizenship Behavior (OCB), is in many ways reactive—as we shall show below.

In contrast, more and more research and theories are arguing in favor of an active employee. Concepts such as PI (Frese et al., 1996; Frese et al., 1997), voice (Van Dyne & LePine, 1998), taking charge (Morrison & Phelps, 1999), role breadth self-efficacy (Parker, 1998; Parker, 2000), active feedback seeking (Ashford & Tsui, 1991; Ashford & Black, 1996; Morrison, 1993b), redefinition of work (Hacker, 1998; Hackman, 1970), and reciprocal causation (Kohn & Schooler,

1978) are all examples of active performance concepts. We argue that these concepts represent a new and different approach to organizational behavior and performance.

As is often the case in applied psychology, we developed the concept of PI at first in response to a particular societal problem; in our case, we wanted to understand a phenomenon observed in eastern Germany after unification with the west. The first western managers who started to operate in the east complained about a lack of initiative. In the socialist East German Democratic Republic, people were given a job directly after school, and, usually, they were expected to stay with the same company and often even the same job for life. Before unification, people were in no way responsible for finding a job, keeping it, or introducing changes to it. After unification, all this changed - in addition to the introduction of new technologies, management styles, and so forth. One of our first research goals was to find out whether the managers were right about the lack of initiative in the East and, if so, why. Indeed, we found that PI was lower in eastern compared with western Germany, and one contributing factor was the higher degree of control and complexity of western jobs (Frese et al., 1996).

However, when we went on to perform a large-scale longitudinal study in eastern Germany, we began to realize that the issue of PI was not just an eastern German phenomenon but a rather general problem: All societies that foster change and require employees to be active must be interested in this concept. Moreover, many managers argue nowadays that they need active participants at work rather than passive implementers of orders from above (and we shall give additional reasons to support this viewpoint). Thus, it turned out that eastern Germany was something like an extreme case for the changes required and implemented, which reinforced the importance of PI in dealing with changes at work in general and in all societies (Fay & Frese, 2000b).

This chapter starts with a brief sketch of the traditional performance concept. We shall argue that the contemporary changes to the work place call for an active performance concept. We shall attempt to provide a general concept and model of PI and active performance from an action theory perspective. After this, we shall discuss concepts that are similar to active performance, such as organizational citizenship behavior and intrinsic motivation. We conclude by discussing some limitations of our PI concept.

The Traditional Nonactive Performance Concept

No scientist would argue explicitly in favor of a nonactive performance concept. As a matter of fact, most assume that performance requires some sort of active orientation. Nonetheless, we think that some implicit assumptions have made performance concepts less active than they should be. Most traditional performance concepts emphasize the reactive and nonchanging aspects of performance more than the active and initiating aspects. Two assumptions are often found: first,

that the pathway from an outside task to the acceptance of the task is direct and not problematic. As we shall point out below, we believe that a “redefinition” process takes place that may modify what the employee perceives to be his or her task. This modified task may well differ from the task assigned. A full performance concept needs to take this “redefinition” into account. The second assumption is that the influence of the employee on the work situation is minimal, and that the work situation is not modified appreciably by the employee’s actions.

Most traditional performance concepts assume that an outside task or goal is given, and that this goal or task is simply taken over (see, for a similar argument, Staw & Boettger, 1990). Performance is then measured in terms of how far the employee actually has achieved the goal or the task. For example, most performance factors discussed by Campbell, McCloy, Oppler, and Sager (1993) take the task as a given. The goal is also assumed to be a given in goal setting research (Locke & Latham, 1990).¹ Such research, often conceives the person as a “mirror” of the task or goal description. Usually, the experimental procedure ensures that the person interprets the external task in exactly the same way as the experimenter or supervisor assigning the goal. However, this is not the case in most work situations (except very restrictive ones). In contrast, an active performance concept takes the perspective that people at work can go beyond these assigned tasks, can develop their own goals, and can self-start those goals. An active performance concept further assumes that people are able to take a long-term perspective on their work that results, for example, in attempts to solve problems that have not appeared yet.

Interestingly, passive concepts are also used for describing employees' reactions to workplace changes. Currently, organizations are going through a multitude of changes because of rapid technological development, a dynamic environment, different organizational ideas, and a changing job concept (see more on this below). Pulakos, Arad, Donovan and Plamondon (2000) talk about the “adaptability” needed in modern corporate environments: “Workers need to be increasingly adaptable, versatile, and tolerant of uncertainty to operate effectively in these changing and varied environments” (p. 612). The concept of adaptability implies that there is a structure (e.g., a job description) that one can adapt to. However, the epochal changes in the job concept imply that there is often little or no structure that one can adapt to. Therefore, uncertain situations require an active approach to work that helps to identify the present tasks and long-term needs of the organization.

Other passive concepts can be found in the field of organizational socialization. Traditional socialization approaches assume that an organization is able to change a passive individual but that the individual is not able to influence the workplace. This has led to the use of terms like “breaking in” (Van Maanen, 1976) or “impacting on” (Frese, 1982). It is only recently that research has begun to focus on the active participation of new employees in their own socialization process. New

employees have to make sense of organizational information (and produce their own schemes of organizational reality, see Weick, 1969), they actively go out to get information (Morrison, 1993a), and, sometimes, they may even attempt to gain feedback that might be hurtful to their ego (Ashford & Tsui, 1991; Ashford & Black, 1996).

The assumptions of classical job socialization research are also shared by the job design literature that typically assumes that work design produces changes in the job incumbent. Although many job redesign efforts try to involve the job incumbents in the decisions on redesigning the job, the assumption is that job design produces changes that lead to changes in the individual worker's feelings or attitudes. In contrast, an active job performance model implies that people can change their job conditions to a certain extent (see, also, Graen, 1976). One of the most important findings of our research on PI is that high-initiative employees actually change the complexity of and control over their workplaces even when they do not change jobs (Frese, Garst, & Fay, 2000). The tasks of a job are not fixed. Every job contains emergent elements (Hacker, 1986; Ilgen & Hollenbeck, 1991; Murphy & Jackson, 1999 talk about "role expansion" and Farr & Ford, 1990 speak of "role innovation"). For example, if a person develops an initiative to improve productivity, his or her job is changed and control and complexity are increased. Work then becomes more interesting and more controllable, and one is further encouraged to change it by developing better work procedures (i.e., by exhibiting PI). Superiors may be involved in this process. A secretary might have been hired originally as a typist; if she or he takes over more and more tasks within the organization or the group, the superior will rely on him or her, and in this way, the secretary's control and complexity increase.

In stress research as well, it is often assumed that stress at work impacts on health and that the employee does not participate actively in this process. Nearly all discussions on stress at work follow this approach, for example, the influential Karasek model (Karasek, 1979), the Michigan model (Kahn & Byosiére, 1992), or the model of Cooper and Marshall (1976). Little stress-at-work research has attempted to check whether there was also an influence of ill-health on stressors at work (Zapf, Dormann, & Frese, 1996). Researchers have shown hardly any interest in how people influence their work situation to make it more or less stressful, and they usually treat such influences as error variance. On the other hand, much psychological stress research is based on the coping concept that describes an active coping strategy (Lazarus & Folkman, 1984). Moreover, Gal and Lazarus (1975) have pointed out the positive function of activities for dealing with stressful encounters; this applies not only to threat-related activities but also to non-threat-related ones. Unfortunately, in work psychology, Lazarus' theory tends to be used more to emphasize the importance of cognitions (e.g., Perrewe, 1999) for the stress process rather than as a means of looking at the objective changes that people make in their work.

The Importance of Personal Initiative and an Active Performance Concept in Tomorrow's Jobs

We argue that tomorrow's jobs will require a higher degree of PI than today's because of global competition, the faster rate of innovation, new production concepts, and changes in the job concept (see, also, Ilgen & Pulakos, 1999). Global competition will reign not only on the company level but also more and more on the individual level as well. With better communication devices, software developers in India now compete for work with software developers in Holland or Switzerland. Employees and self-employed individuals, particularly in the highly paid western world, continuously have to take the initiative to develop their knowledge and skills in order to remain competitive on the world market. A faster rate of innovation implies that creative ideas have to be implemented quickly: Implementation requires PI both in those who have creative ideas as well as in the employees who convert creative ideas into concrete products. Additionally, companies that tap into the creative potential of their employees will benefit in the competition for opportunity shares (Hamel & Prahalad, 1994). New production concepts have increased responsibility for production, service, and quality issues (Murphy & Jackson, 1999; Wall & Jackson, 1995). This implies that employees have to make decisions on their own, and they have to follow through on these decisions. In short, they have to show initiative. The just-in-time approach is one example: Rather than products being pushed onto the market to find their customers, products are pulled in by orders from the customer; buffers that prevent breakdowns in case of problems are removed. This implies that poor coordination may lead to a full breakdown in production. As a result, coordination has to take place on the lowest organizational level. Therefore, employees have to be aware of what is happening before and after their own areas of production (or service), and the success of this system depends on people taking initiative when they sense that things are not working out well. Finally, there has been changes in the job concept (Bridges, 1995). Temporary work is on the increase, whereas job security is in decline. People are assigned to projects and not to jobs. For example, Microsoft has no regular working hours, people are accountable to their project team, which is, in turn, accountable to the larger project. When a project ends, employees move on to another project (Bridges, 1995). When employees are working outside a rigid structure, they have to motivate themselves and they have to rely on their own decisions, which, once again, emphasizes the role of PI.

All of the above-mentioned trends increase the importance of PI. In many respects, individual responsibilities are increased. To be able to keep pace with changing requirements in knowledge and skills, people have to develop them actively. The change in the job concept makes it necessary for people to actively engage in continuous participation on the labor (or better, project) market. Jobs will be created only when a large number of members in a given society show PI.

The Concept of Personal Initiative and Active Performance

Three Aspects of Personal Initiative: Self-Starting, Pro-Active, and Persisting

Showing PI means to be self-starting, proactive, and persistent. Note that we think of PI as behavior. People exhibit a class of behaviors that we call personal initiative. We shall address the issue of personality below. At present, it is sufficient to conceive our use of PI as active behavior.

Self-starting implies that a person does something without being told, without getting an explicit instruction, or without an explicit role requirement. Thus, PI is the pursuit of self-set goals in contrast to assigned goals. An example is a blue-collar worker who attempts to fix a broken machine even though this is not part of his or her job description. Frequently, initiative deals with subproblems of an assigned task or with issues that are not obviously related to the task. It may be useful to discuss briefly the conceptual issues for high- and low-level jobs.

Initiative in high-level jobs is difficult to define, because high-level managers are often required to show initiative as an external task; in this case, PI seems to be part of the job description. Can we still speak of self-starting, if the chief executive officer who initiates both process and product innovation is really “doing his or her job”? “To take the initiative” is a highly abstract task requirement, because it does not really structure the activities by the manager. Initiative can be shown in dealing with subtasks and in doing subtasks that are not obvious to the job. Therefore, the chief executive may, indeed, show PI if he or she self-starts to change the strategy of his or her firm. Of course, this can only be viewed as PI, if the chief executive does not just follow the example of many other chief executives.

In low-level jobs, PI is usually not prescribed as an external task. For example, PI on the assembly line is often unwelcome because an assembly line is based on standardization and PI always implies some degree of nonstandardization of actions. Furthermore, there is little worker autonomy and control and, therefore, little room for PI. Again, one resolution is to look at the subtasks. There is room for blue-collar workers on the assembly line to think of and suggest quality improvement measures (although they are not allowed to implement them immediately themselves). Similarly, they may perform additional checks on the quality of prior work, and this may well have positive effects. For example, in one study, we observed that the task of drilling a hole in an automobile could damage cables located below the drilling surface. In such a case, the worker may think of the danger of drilling too far and tell others about it. This is part of PI.

Taking initiative requires self-setting a goal. This goal can be based on a personally developed idea, but we also consider that someone is showing PI when they take charge of an idea or a project that is known but has not been put into action in this context before. Thus, PI often requires that somebody takes charge of an idea that has been around for a while. It can be shown with regard to big and small issues alike. For example, a secretary who buys mineral water for a guest speaker shows initiative, even if this is a small matter. Personal initiative is also shown by the

blue-collar worker who presents a suggestion that helps a company reduce its production costs by half a million dollars.

Proactivity means to have a long-term focus and not to wait until one must respond to a demand. The long-term focus on work enables the individual to consider things to come (new demands, new or reoccurring problems, emerging opportunities) and to do something proactively about them. Thus, problems and opportunities are anticipated, and the person prepares to deal with them immediately.

Imagine, for example, a secretary in a university department who books travel tickets for her boss. Her formal task is to phone the travel agency with which the university has negotiated discounts. Perhaps she is not satisfied with the service and finds the discount unattractive. She decides to find out whether she can get a better deal somewhere else. She phones different agencies, checks options on the Internet, negotiates, and finally comes up with a better agency. This secretary has taken initiative: She self-started an activity, because she went beyond the job's formal requirements. She acted in a proactive manner, because she anticipated having to take care of travel arrangements in the future and that service and prices will not improve by themselves. This example also illustrates that PI leads to changes in the environment.

When taking initiative, persistence is usually necessary to reach one's goal. Generally, PI implies that something is changed: A process, a procedure, or a task is added or modified. Changes usually do not work out perfectly from the very beginning; they often involve setbacks and failure. People affected by the changes may not like having to adapt to something new and being forced to abandon their routines. This requires persistence from the person taking initiative in order to get past technical barriers and to overcome other people's resistance and inertia. Sometimes, persistence also has to be shown toward supervisors who do not like their subordinates going beyond the boundaries of their jobs.

The three aspects of PI—self-starting, proactive, and overcoming barriers—reinforce each other. A proactive stance leads to the development of self-started goals, because a proactive orientation toward the future makes it more likely to develop goals that go beyond what one is expected to do. Self-started goals lead to the need to overcome barriers because of the changes inherent in their implementation. Overcoming barriers also leads to self-starting goals, because unusual solutions often require a self-start. Finally, self-starting implies that one looks at potential future issues, and, therefore, there is a higher degree of proactivity. Thus, there is a tendency for these three aspects of PI to co-occur (Frese et al., 1997).

PI in employees is not always welcomed by supervisors or colleagues. Often high-PI people are perceived by their environment as being tiring and strenuous. Every initiative “rocks the boat” and makes changes. Since people tend not to like changes, they often greet initiatives with

skepticism, as the literature on organizational change has shown (e.g., Begley, 1998). Supervisors may even think of high-PI employees as being rebellious. They do not accept suggestions or orders by their supervisor without asking why; they are also less likely to do things one way just because that is the way they have always been done in the past. In short, many supervisors may actually think of high-PI people as a “pain in the butt.” In the short run, initiatives are not always appreciated, although in the long run, they are crucial for organizational health and survival.

Self-Starting Behavior in the Context of Organizational Goals and Tasks

At work, people are usually confronted with tasks embedded in an organizational structure. How do they generate self-starting goals? We propose that PI is the result of a deeper analysis of these tasks. Imagine a European white-collar worker who learns that the company he works for is about to be taken over by an American organization. He anticipates that it will be useful to have a solid knowledge of English in the future. He convinces his colleagues that learning English will be a worthwhile investment and organizes professional English teaching for all of them. Additionally he persuades the supervisor that part of this English course could be done during company time. This is an example of initiative taking: The person does not respond to an immediate demand but to a future one. Therefore, the PI is based on a self-set goal. Thus, a deeper and long-term task analysis makes it possible to see implications for one’s future tasks, and the employee can proactively develop knowledge and skills to deal with future task demands.

One could argue that this example does not display self-starting behavior in the true sense of the word. After all, the example implies a response to future task demands. A similar problem for the concept of self-starting emerges, for example, in higher managers and entrepreneurs who have the task of anticipating future challenges, opportunities, and threats and acting accordingly (pro-actively).

These conceptual problems have led us to sharpen the meaning of self-starting: Something is self-starting if there is a large psychological distance between the path taken as part of PI and the “normal” or obvious path. If something is obviously going to happen in the future, it does not take any mental work to recognize it; therefore, the psychological distance from immediately taking the appropriate steps is small. However, if something is not obvious, a high degree of mental anticipation is necessary, and, therefore, the psychological distance is large. If a high-ranking manager takes up an innovation that is “in the air,” that other managers also talk about, and that has been discussed in professional magazines for some time, it is not personal initiative. In this case, the psychological distance is small. Personal initiative is being shown when the high-ranking manager takes an approach that is unusual, at least, for the industry concerned (see Fay & Frese, 2000c). This makes our concept of self-starting context-specific: Two behaviors in different contexts may be conceptualized differently. For example, the African entrepreneur who develops a total quality

management program may be self-starting (given what is normal in his or her context), whereas the same idea implemented by an American entrepreneur will not usually be counted as self-starting.

It is sometimes easier to describe the other pole of PI: non-self-starting behavior. If a task is prescribed in detail, and the person follows the prescription, there is no self-starting behavior. Often consultants have the role of prescribing the tasks for managers in detail. Following a consultant's advice is the opposite of PI, particularly if the consultant coaches the manager through the process of implementing an idea. The more a job incumbent deviates from prescriptions or the less clear the prescriptions are, the more he or she is able to show PI.

Facets of Personal Initiative

Table 1 provides a general concept of active performance from an action theory perspective (Frese & Zapf, 1994; Hacker, 1998; Kozulin, 1986). Our discussion is based on two aspects of action theory (which cannot be explained in detail because of lack of space): the notion that humans are active by their very nature (see Frese & Zapf, 1994) and the concept of action sequence (Dörner & Schaub, 1994; Frese & Zapf, 1994; Miller, Galanter, & Pribram, 1960) that we use to develop the facets of PI (as presented in Table 1). An action sequence consists of goal development, collecting information and prognosis,² plan development and execution, monitoring of the execution of a plan, and feedback. Once a goal is established, a person looks for information and, when dealing with dynamic systems, makes some kind of prognosis of future states. The information is used to develop plans that are then executed. During plan execution, an action is monitored. The person gathers feedback that is used to adjust his or her actions. This sounds like a logical sequence in which an action unfolds. However, we do not assume that this sequence is immutable; for example, people may jump from a goal directly to planning and then go back to get more information. Moreover, there are circular processes in the flow of actions. This means, for example, that a person may re-decide on a goal after having started the action, or a certain plan may change one's goals, and so forth.

The sequence is described on the left-hand side of Table 1. For each part of this action sequence, the three aspects of PI are displayed in three columns: self-starting, proactive, and overcoming barriers. The first column—self-starting—implies that goals, information collection, planning, and feedback processes are active. The second column—proactive—implies that each step of the action sequence relates to dealing with future problems and opportunities. The third column—overcoming barriers—implies that goals, information collection, plans, and feedback are protected against interference.

We shall use the following example to explain each facet: The employees of a small company have discussed the company's web-site several times. Every time they discuss this issue, they notice that there are problems with their homepage, but whenever they modify it subsequently,

this seems to fix the problems only superficially. After the fifth discussion, one person decides that further discussion is futile, that she will take it upon herself to propose a better web solution, and to take responsibility for its implementation.

The Self-Starting Facets

The first column—self-starting—implies that goals, information collection, planning, and feedback processes are active.

Goals. Actions are goal-oriented and guided by goals. At work, goals are determined by the tasks required. There is a translation process from the organizational task descriptions into goals—the redefinition process (Hacker, 1998; Hackman, 1970). In our example, the employee decided that, as a company member, she needed to do something to improve the web image of her company. Thus, she developed a task for herself that was not part of her job description but that was useful because it advances the market chances of the company.

The redefinition process makes it possible to define extra-role goals; that is, goals requiring a self-starting approach and thus PI. The redefinition process is the starting point for PI. We assume that in every job, it is possible to add on or to revise goals in the process of redefinition (see Staw & Boettger, 1990). This is true even for assembly line work. Quality issues, thinking about new ideas on how to do the work, discussing problems with materials or parts used as input into the assembly line and their quality with colleagues—all these factors are part of the redefinition of tasks even on an assembly line.

An active redefinition implies that there is a psychological distance between “normal” (expected, prescribed, assigned, conventional) goals and the goals taken by this person. For example, a professor may be expected to stay active in the field and to write a research proposal now and then. Active redefinitions of such goals would imply, for example, that a professor wants to improve and develop his or her field and make substantial research contributions. Often such redefinitions mean that an employee adds substantial quality standards to required goals and tasks.

The redefinition concept overlaps to a certain extent with Ilgen and Hollenbeck's (1991) differentiation between jobs and roles. In their terminology, jobs are developed by the organization; they are static, bureaucratic, and objective. In contrast, roles are expectations of a set of behaviors. “. . . roles exist in the minds of people. In all work with roles, at least one of those persons of concern regarding a role is the person who holds the role and acts out behaviors as a holder of that role” (Ilgen & Hollenbeck, 1991, p. 169). Roles pertain to “emergent elements,” and the job relates to “established elements” of work. The differentiation between roles and jobs is similar to our approach, except that we emphasize the individual job incumbent’s redefinition (which is only one of the factors leading to emergent elements in Ilgen and Hollenbeck’s, 1991, approach).

A goal may be a specific goal (“I want to write a letter”) or it may be a meta-goal (“I always want to be on good terms with my colleagues”). A meta-goal is a goal that regulates the setting of one’s goals (we define a meta-goal similarly to a meta-cognition, see Frese, Stewart, & Hannover, 1987; Weinert & Kluwe, 1987). The most important meta-goals for PI are active meta-goals. We assume that people differ on the dimension of active versus passive meta-goals. An active meta-goal implies being active even when one does not gain rewards from this activity; for example, a temporary worker might start to develop ideas on improvements even though he or she is on the job for only a few days. People with a meta-cognitive tendency toward active goals will show more PI.

Information collection and prognosis. The next phase of the action sequence in Table 1 is the information collection and prognosis phase (Dörner & Schaub, 1994). The employee who took it upon herself to improve the homepage of her company examined various other sites, collected information on what can be done, and actively scanned the best sites from other companies. Information collection and prognosis implies that one gets to know the environment so that one can act within it. Information collection and prognosis may be active or reactive. An active information search scans the environment for potentially important cues. Since action opportunities are often hidden and unobtrusive—as any entrepreneur knows—self-started exploration makes it more likely to find these opportunities. Some type of prognosis is necessary when the environment is dynamic and changes without input from the actor (Dörner, 1996). An active search is particularly important when the environment is not transparent (e.g., a complex technical system, the economy of a country, or the actions of other humans, Dörner, 1996).

One area in which an active search to get to know an environment has been studied is human-computer interaction (e.g., Carroll, Mack, Lewis, Grischkowsky, & Robertson, 1985). Different people have different approaches when confronted with a software environment: Some stick carefully to procedures they know well; others explore freely and, thereby actively collect additional information. Some computer users engage in active exploration even when the experimenter specifically instructs against it. At the same time, active exploration increases performance. In a software training study on learning how to use the statistics package SPSS-PC (Dormann & Frese, 1994), some college students were instructed to use an approach that gave them little chance to make an error because the experimenter provided a procedure for solving all problems correctly. These participants were told not to deviate from this procedure, so that they would only learn the “correct” one. Nonetheless, some of them still explored the system in spite of these instructions. Results showed that those who had explored performed significantly better than those who had not. Reither and Stäudel (1985) have shown that participants working on a very complex and dynamic computer simulation of a town (including the running of the local firm) did

better when they used a more active approach to get to know the system and asked more questions, particularly more "why" questions.

Although active exploration of the environment has positive consequences, people should not stay too long in the information collection and prognosis phase. A frequent mistake is to stick with this phase and not advance to the planning phase of an action because one is afraid of making mistakes. Kuhl's (1992) concept of state orientation describes the problems of people who tend to defer actions in order to accumulate even more information. Pfeffer and Sutton (2000) have described the same phenomenon for organizations. The information collection and prognosis phase should not be too long and it should exhibit a certain amount of experimentation vis-à-vis unknown situations coupled with an active approach if errors occur (van der Linden, Sonnentag, & Frese, in press).

Plans. The third phase in Table 1 relates to planning. The company employee in our example made a plan on how to develop a good homepage given the resource constraints of her small company. Plans are bridges between thought and action, and they specify the steps to achieve a goal (Miller, Galanter, & Pribram, 1960). They do not need to be well-developed (Miller et al., 1960). They may consist of a few rudimentary ideas on how to achieve goals or they may be elaborated blueprints of action. Self-starting implies that one has an active plan in contrast to using standard procedures. An active plan goes beyond the normal and "obvious" plan of action (again, the psychological difference to the "normal" plan is important here). For example, the employee in our example may develop her homepage in various languages and with a more personal approach than was deemed necessary originally (obviously, the plan must also be adapted to the environment in order to succeed).

There are, in principle, two types of active self-started plans: opportunistic and well-developed plans. Opportunistic plans are based on active scanning of the environment for opportunities; they do not involve long-term planning (Hayes-Roth & Hayes-Roth, 1979). In contrast, active plans may also be well-developed. As a matter of fact, we believe that a high degree of plan development usually implies an active approach. A well developed plan usually requires one to consider long term future issues, it takes into consideration potential problems and difficulties, and details are considered.

Analyses of research and development work have shown that the most frequent choice is some combination of planning and opportunistic approaches. This essentially means that bouts of planning are interspersed with opportunistic procedures (Hacker, 1999; Sonnentag, 1998). High performers are more prone to use this combination approach (Hacker, 1999; Sonnentag, 1998). In our research, we categorized small-scale business owners' action strategies into complete planning, critical point planning, opportunistic, and reactive. A complete plan is highly developed before it is

put into action. Critical point means that an important issue is planned out, whereas other issues are not developed (Zempel, 1994). Complete planning and critical point planning turned out to be the most successful strategies, whereas a reactive action strategy related negatively to entrepreneurial success (Frese, 2000; Frese, Krauss, & Friedrich, 2001; Frese, van Gelderen, & Ombach, 2000; van Gelderen, Frese, & Thurik, 2000). A reactive strategy implies that the entrepreneur only reacts to external demands. It is impressive to see how a psychological action characteristic relates so strongly to the economic success of a business (with negative betas of around .30 - .40 between reactive strategy and business success). An opportunistic strategy—a strategy that is actively scanning the environment, but implies little planning—may be useful under certain circumstances, for example, in informal and small companies that have fewer resources for planning and less clout with which to influence their environment.

Monitoring and feedback. The final phase of the action sequence is monitoring of execution and feedback (Table 1). In this phase, self-starting implies that a person develops his or her own checks and feedback. For example, when developing new software, it is useful to develop checks and feedback so that one can tell whether one is on the right track during the course of programming. Active feedback seeking by new employees has also been shown to relate to higher performance (Ashford & Black, 1996; Morrison, 1993). The employee in our example would use an active feedback approach by asking a lot of her acquaintances what they thought about the features of her new homepage. She might also add the feature of asking potential viewers of the homepage to e-mail their comments to her.

The Proactive Facets

The second column—proactive—implies that each step of the action sequence is related to dealing with future problems and to taking advantage of opportunities. Proactive goals imply that people take a long-term approach to work. This is exemplified in the employee who wants to develop a homepage that should remain useful for many years. If this person had only thought about her work within the constraints of a few weeks (short-term approach), she would have had no interest in taking on the task of designing a new homepage.³ Thinking about the future and thus knowing that the company's long-term future is contingent on having a good homepage, was one reason for her action. A long-term orientation also produces better ideas on what to base PI than a short-term orientation. Indeed, so-called superworkers—very good workers in comparison to average workers—tend to have long-range goals and show more active behaviors at work, for example, in the blue-collar sector (Frese & Zapf, 1994; Hacker, 1992). Superworkers can anticipate future problems and opportunities, which are aspects of proactivity. The literature on economic strategies argues forcefully that detecting future opportunities is the key to business success (Hamel

& Prahalad, 1994); and, indeed, those companies with managers who scan the environment more actively are more successful (Daft, Sormunen, & Parks, 1988).

A long-range perspective also helps to look for information in order to understand potential problem areas and opportunities. The proactive aspect of information collection and prognosis is seen when a person deliberately searches for problem areas and barriers and looks for alternative routes and strategies before the problems appear. Similarly, information is collected in order to know future opportunities. The employee working on her homepage is thinking about future developments in the web and considering ways in which the homepage can attract new clients. Superworkers prepare better for eventualities and are, thus, better prepared when problems (or errors) occur. This better preparation results in knowing how likely it is that errors will appear and how long it takes to deal with them (Frese & Zapf, 1994; Hacker, 1992).

Proactivity with regard to plans implies that a person develops back-up plans (Plan B), in case something goes wrong. This also applies to plans for dealing with opportunities. The employee in our example developed a variety of back-up plans should her first proposal fail to gain acceptance by the group or prove to be too expensive to develop. Again, it is helpful to have a long-term orientation when developing proactive plans and to think about the long-term implications of such a plan.

Finally, proactive monitoring and feedback means that people develop pre-signals. These are signals that tell the actor in time that problems (or opportunities) will occur in the future. A proactive stance implies that pre-signals for potential problems (and opportunities) are developed. The employee developing a homepage programs a daily count of hits on this homepage to find out whether the homepage retains its attraction or becomes less popular. Another example is a blue-collar worker who “hears the sound” that signals a future machine problem that has not yet fully developed. This allows the worker to be prepared for trouble or even to change the respective part before it wears out. When barriers are anticipated from such pre-signals, they can be detected and dealt with more quickly or even prevented.

The Overcoming-Barriers Facets

The third column—overcoming barriers—implies that goals, information collection, plans, and feedback are protected against disturbances. Self-regulatory emotional processes (Karoly, 1993) are involved when people are confronted with barriers (see Table 1). People have to protect their goals. They have to convince themselves that it is worth continuing with a certain self-started action even when it is not immediately successful (e.g., the employee developing the homepage finds out that her first ideas and plans were too expensive). One prerequisite for continuing with a path of action in spite of problems is a feeling of responsibility for the process and the outcome. If

people negate their responsibility by attributing it to others (“it was his fault that we could not meet the deadline”), there is little impetus to overcome barriers.

Information collection and prognosis can also be interrupted by negative emotions as well as the complexity of the environment one is dealing with. Protecting oneself from giving up one’s search activities in spite of complexity and negative emotions is an important element for overcoming barriers in this step of the action sequence. As a matter of fact, one frequent mistake is to halt one’s search activity prematurely and stick to the first solution that comes to mind (Dörner & Schaub, 1994) when familiarizing oneself thoroughly with a complex situation seems to be too laborious.

Once plans are developed and put into effect, barriers on the path to success must be overcome. Typically, these are barriers that block a plan of action. Back-up plans help here because they are essentially contingency plans in case a barrier should appear. Plans also need to be protected against disturbances. Fascinating new data on expertise in the work setting show that one of the best predictors of competence in software developers is the speed with which they return to their plan of action after having been disturbed (Sonnentag, 1998). On the other hand, it is useless to stick to a plan that is obviously not working. Volpert (1974) argued that effective action is stable in goals and flexible in plans. This implies that protecting plans is less important than protecting goals during the flow of action.

Overcoming barriers in the monitoring and feedback phase of the action sequence is related to protecting the feedback search from difficulties that may arise. A situation may be so complex that it is difficult to construct feedback signals. Also, it may be hard to search for feedback because the situation lacks transparency or questions are prohibited (e.g., in an authoritarian organization, in which one must not appear to be too nosy).

Summary. So far we have argued that PI can be supported in every step of the action sequence. At each step, one can be self-starting, which implies that one does things that are difficult to do and go beyond what is typically done. The psychological distance between what a person’s job is and what he or she is doing in a self-started manner is the metric by which we determine how far a certain action has been self-started. The issue of proactivity is dependent upon a long-term focus and implies that future problems, difficulties, and opportunities are anticipated and taken into account. The issue of overcoming barriers is to protect the goals, information collection, plans, and feedback search from being abandoned; in this case, protecting the goal is most important.

Table 1 can also be used to explain the opposite of PI—reactive behavior. Instead of self-starting, reactive behavior implies that a person does what he or she is told and takes the conventional, routine, or typical approach. This means that the person’s goals are determined by outside forces, that only easily accessible information is collected, that the person follows the

conventional or routine approach, and that he or she waits until given feedback. Instead of being proactive, reactive behavior does not anticipate future problems and opportunities but waits for them to happen and then reacts to them. Reactive behavior also does not search for problems and opportunities, does not have back-up plans, and does not develop pre-signals. Finally, reactive behavior tends to give up when conventional or routine approaches to overcome barriers are not readily available.

This overview shows that various facets of PI have been studied, although, typically, only in isolation. The various facets represent different avenues to personal initiative. Thus, the overall strength of PI is higher when more PI facets are reflected in a person's actions (self-starting, proactive, and overcoming barriers in each of the phases of the action sequence).

Measurement of Personal Initiative

Although this is a theoretical paper, a brief description of the measurement of PI should make it easier to understand the evidence accumulated on the construct (see, for more detail, Fay & Frese, 2001). Because PI is conceptualized as concrete behavior, we have attempted to use behavioral measures. Furthermore, we wanted to be able to apply it to all sectors of the working population. We decided to measure PI within the framework of a situational interview (Latham & Saari, 1984). The interview made it possible to sample work behaviors in response to scenarios. In addition, we used a high degree of probing to gain more precise and less socially desirable answers than those from a questionnaire. We did not use supervisors' ratings, because these may be subject to negative bias as PI can be somewhat rebellious (as described above).

We have not yet developed measures for all the facets discussed above, but the major aspects have been measured in the following ways (Frese et al., 1997): First, the self-starting nature of initiative at work was measured with questions on past initiative at work, for example, whether in the last 2 years the respondent had looked into some work problem and suggested solutions. If the answer was affirmative, the interviewer probed further to ascertain whether the reported action was self-starting (i.e., not part of the respondent's job role or an assignment). Second, to overcome the problems due to the retrospective nature of this measure, we also measured current initiative in an area that is important to nearly every job: education initiative. Again, we checked whether it was self-started or demanded by the company, and whether the respondent showed persistence in spite of setbacks and a long-term focus. Third, to measure overcoming barriers, the interviewer presented some problems and the respondent was asked to overcome them. For example, what would the respondent do if a colleague continuously produced shoddy work that placed an additional workload on the respondent. Whatever the respondent answered, the interviewer insisted that this particular answer would not solve the problem (thereby posing an additional barrier), and asked for additional ways of overcoming it. The number of barriers overcome was counted. Note that this

measure is a performance measure even though it is used within an interview setting. It is most probably related to creativity; and creative ways of dealing with barriers are necessary for PI. However, it is also based on successfully regulating the emotions that arise when barriers appear repeatedly. Helpless people (the opposite of PI) give up quickly when barriers emerge. Fourth, to measure how active people were when they overcame the barriers, the interviewers rated whether they kept the initiative in their own hands or delegated responsibility to somebody else (e.g., their supervisor). Fifth, a robust and easy-to-use measure asked the interviewer to give an overall judgment on the respondent's PI.

The measures have been found to possess adequate inter-rater and scale reliabilities and construct validity (see Fay & Frese, 2001; Frese et al., 1997). Because the various scales all form part of a general PI factor, they can be aggregated to form one single scale. This aggregated measure correlated significantly with both a peer measure (from respondents' spouses) and a self-report measure of PI (Frese et al., 1997).

Antecedents and Consequences of Personal Initiative

The general model of antecedents and consequences of PI is shown in Figure 1. The following points are important to understand this figure: First, PI is usually conceptualized as behavior (and not as a personality variable) both in our studies and in studies examining "voice" or "taking charge" (the latter used a peer rating of taking charge behavior). Second, the model differentiates between proximal and distal causes (Kanfer, 1992). Personality along with knowledge, skills, and abilities (KSA) are distal causes; orientations are proximal causes (environmental supports are a mixture of distal and proximal causes). Orientations are of medium specificity; they are more specific, more action-oriented, and closer to the area of PI than the distal causes. In line with Rotter, Chance, and Phares (1972) as well as Fishbein and Ajzen (1974), the proximal variables—orientations—should be more predictive of PI than the distal, more general causes. Third, environmental support, KSA, and personality variables influence orientations, which, in turn, influence PI. Initiative exerts an influence on individual and organizational level performance. In the following, we shall go through the figure step by step, starting with orientations because they take a central place in the model.

Orientations

In line with Fishbein and Ajzen (1974), Rotter (1972), and Bandura (1997), we think that all person concepts can be differentiated along the dimension of generality, and that the generality of the concept should fit the research question. The term orientation signifies a concept of medium specificity. An orientation is neither a highly specific attitude (e.g., toward one task) nor a general personality trait. An intermediate level of specificity is required, because all orientations in the model are supposed to predict PI directly and proximally across a number of domains within the

work setting. We use the term orientation, because the concept of orientation (like an attitude) includes affective, conative, and cognitive components (Eagly & Chaiken, 1993).

The orientations motivate PI, because they make the person believe that showing PI is possible (why approach PI?) and that he or she can deal with potential negative consequences (why not avoid PI?). Therefore, the orientations in the model depicted in Figure 1 center around the concepts of control/mastery (motivators) and of dealing with potential negative effects of personal initiative, mainly change, stress, and errors (being able to deal with demotivators). In the following, we shall discuss the two aspects of approaching PI and not avoiding PI separately.

Approaching PI requires the expectation of being in control of the situation and of one's actions and that one is motivated by control. This is captured by the three orientations of control appraisals, self-efficacy, and control and responsibility aspirations. Control beliefs can appear in two areas, namely, the areas of control over outcomes and control over one's actions. Control appraisal is related to believing that one is able to influence decisions at work and, thereby, to have an impact on outcomes at work (Folkman, 1984). For example, if a person is able to influence the decisions of the supervisor, it is possible to change things at work. Control over a person's actions refers to the concept of self-efficacy, that is, the expectancy that a person is able to perform a certain action effectively (Bandura, 1997). Control and responsibility aspirations or lack of aspirations have been studied within the framework of the helplessness model (Frese, Erbe-Heibokel, Grefe, Rybowskiak, Weike, 1994; Seligman, 1975). Helplessness leads to negative motivational consequences because the organism stops trying to control the environment when it does not expect any positive outcomes (Heckhausen & Schulz, 1995; Seligman, 1975; White, 1959). There is also a downside to control—it is usually related to responsibilities; a person who is responsible for an outcome may experience negative sanctions if he or she has done something in the wrong way. One advantage of helplessness is that there are no responsibilities. Thus, a person has to accept responsibilities if he or she wants to have control.

We argue that the three control orientations—control appraisal, self-efficacy, and control aspiration—affect PI. Potential processes by which control orientations produce this effect on PI are as follows: People with high control orientation should have a stronger sense of responsibility (Hackman & Oldham, 1975; Morrison & Phelps, 1999); they should not give up easily when problems arise (Bandura, 1997; Folkman, 1984); they should search more for opportunities to act (Bandura, 1997; Folkman, 1984); they should have higher hopes for success and, therefore, take a long-term perspective in goal setting and planning (Heckhausen & Schulz, 1995); and they should actively search for information (Ashford & Tsui, 1991), which leads to better knowledge of where to show initiative. Self-efficacy is related to performance (Stajkovic & Luthans, 1998) and to PI (Morrison & Phelps, 1999, used the term “taking charge”—a concept very similar to PI). The

Eastern German longitudinal study with four measurement waves revealed that the three control orientations influenced PI consistently (Frese, Garst, et al., 2000).

The second set of orientations to influence PI relates to potentially negative consequences of personal initiative. Motivation is affected when negative outcomes are expected. The themes of change, stress, and errors can be anticipated as a consequence of PI and, therefore, need to be dealt with before one is motivated to show PI. People who perceive changes as negative, who are fearful of errors, and who are not sure whether they can deal with stressors actively are less likely to exhibit PI behavior. When taking the initiative, one leaves behind routine work and changes the situation. This increases the likelihood of making errors, because changes and nonroutine actions increase work complexity. Stressors often appear as a result of new activities and new procedures at work, at least in the short run. Good strategies are needed to cope with them. The same holds for an active orientation toward changes: It makes people more capable of dealing with those changes that appear as a consequence of PI.

Empirically, there is evidence that the three orientations of active coping with changes, errors, and stressors reduce the barriers to demonstrate PI. Change orientation increases the likelihood of exhibiting PI (Frese & Plüddemann, 1993). Errors arise when individuals try out new actions—a necessary aspect of PI. Those who have difficulties in dealing with errors are less motivated to demonstrate PI. This has been shown in the longitudinal study in which mastery with regard to errors predicted the use of PI and in an intervention study in which training employees to deal with errors better led to an increase of PI as judged by their supervisors (Frese, Bryant, & Stoel, in prep.). Finally, active coping with stress is an orientation that helps to deal with the strain that may accompany the use of PI. This assumption is supported by an empirical relationship between active problem-focused coping (in the sense of Lazarus & Folkman, 1984) and PI (Frese et al., 1997).

Personality Factors

Personality factors are much more general than orientations. We also assume that they are less changeable, that they are distal causes, and that they influence PI only via orientations. We shall discuss need for achievement, action control, need for cognition, proactive personality, and psychological conservatism, because they are predictors of PI and they also need to be distinguished from PI. Need for achievement implies a high level of aspiration, a strong orientation to succeed in dealing with a task, a focus on personal improvement, and an interest in performance feedback (McClelland, 1987). Need for achievement and PI are conceptually distinguishable. Although need for achievement is oriented toward hard work and overcoming barriers, it does not imply that an activity is self-started. Accordingly, we found a significant, though not very high,

correlation between need for achievement (measured with a questionnaire) and PI (Frese et al., 1997).⁴

Action control (in the sense of Kuhl, 1992; he also used the terms state vs. action orientation) means that a person may either tend not to make a decision, to procrastinate, and to be distracted (state orientation), or, in contrast, to put the intention quickly into action (action orientation). Putting an intention into action is a prerequisite for exhibiting self-starting PI. In line with this, we found correlations between the personality variable action control and PI behavior. Nonetheless, these correlations were relatively low (Frese et al., 1997), probably because Kuhl's concept does not imply self-starting intentions. Moreover, Kuhl (1992) talks about only one sort of barrier—namely, internal barriers—whereas the PI concept assumes that persons overcome all sorts of barriers on their path toward a goal.

Furthermore, need for cognition related positively to PI (Fay et al., 1998). This personality variable measures "the tendency for an individual to engage in and enjoy thinking" (Cacioppo & Petty, 1982, p. 116). As pointed out above, PI often brings about situations that are new, unstructured, and difficult. In such situations, deliberate engagement in cognitive activities is important; people with a high need for cognition probably have a higher propensity to handle change, nonroutine activities, and errors.

A highly proactive personality is "one who is relatively unconstrained by situational forces and who effects environmental change. Proactive personalities identify opportunities and act on them; they show initiative, take action, and persevere until they bring about meaningful change" (Crant, 1995, p. 532). Proactive personality and PI are conceptually related. In contrast to Crant (1995), we define PI as behavior (and, therefore, measure it within an interview procedure that includes behavioral samples). Nonetheless, we agree with Crant (2000) that a personality trait of proactive personality should be one of the predictors of PI behavior. Therefore, we have also developed a PI personality measure assessed with a questionnaire. As predicted, this questionnaire measure revealed low- to medium-sized correlations with our behavioral measures of PI (.11 to .29; Frese et al., 1997). This underlines our argument that it is necessary to differentiate between proactive personality and PI behavior. Moreover, we think that the behavioral manifestations of PI correlate more strongly with organizational performance and other meaningful variables (Frese et al., 1997) than a personality variable. This should be so, because proactive personality is a distal predictor, whereas PI behavior is closer to performance and specific behaviors.

In a further study, we compared Bateman and Crant's (1993) proactive personality scale with our PI personality questionnaire measure and found a disattenuated correlation of .96 (Fay & Frese, 2001). Hence, both personality measures are essentially identical. The questionnaire personality measure predicts certain behaviors less well than our PI-behavior interview measure; for

example, in a longitudinal study, only the interview based PI behavior prior to unemployment predicted being able to get a job again, whereas the personality measure did not (Frese et al., 1997). We did not become aware of the concept of proactive personality originally proposed by Bateman and Crant (1993) until some time after we started our research on PI in 1990. It speaks for the importance of the general concept of PI that another research group has been concerned with a similar concept (Crant, 2000).

The last personality variable described in Figure 1 is psychological conservatism—a construct similar to authoritarianism and dogmatism. Conservatism implies a set of social attitudes related to a right-wing political orientation, ethnocentrism, and strict insistence on rules and punishment (Wilson, 1973). Based on a generalized intolerance of uncertainty (Wilson, 1973), conservatism presumably relates to difficulties in dealing with or adjusting to change. Since high PI changes the conditions of one's work, conservatives tend not to show PI and do not like others to show initiative. Empirically, we found that psychologically conservative persons had a lower tendency to show PI than those who were less conservative (Fay & Frese, 2000a).

The personality factors in Figure 1 should impact on orientations. As pointed out above, personality is more general and more distal with regard to PI behavior than orientations. For example, achievement motive as a distal variable should affect control aspirations (if one wants to achieve things, one needs to be in control). Similarly, psychological conservatism is related to skepticism toward changes (low degree of change orientation) and little tolerance for errors (and therefore, low degree of active error handling). Of course, not every personality variable influences every single orientation.

Knowledge, Skills, Ability (KSA)

PI can develop better if a person is good at his or her work and is able to learn quickly. Therefore, high knowledge, skills, and ability (KSA) are antecedents of PI. Indeed, the eastern German longitudinal study (Fay & Frese, 2001) provided evidence that cognitive ability affected PI. Similarly, qualifications (as a summary measure of job knowledge and skills) were also related to PI (Frese & Hilligloh, 1994). We assume that orientations function as (partial) mediators of this process as well. Knowledge, skills, and ability are resources, because they allow the individual to handle the job well. They provide the experience of mastery, and mastery experiences, in turn, allow the individual to develop higher self-efficacy (Bandura, 1997) and higher control appraisal in the job (Rotter et al., 1972). If a person knows that he or she has the knowledge and capacity to deal with a situation, he or she also knows that the outcome is controllable. Mastery experiences inoculate against learned helplessness (Seligman, 1975) and, therefore, lead to higher aspirations of control. When few resources are available (control is low), people give up their aspirations of control. When KSA is high, dealing with anticipated changes, errors, and stressors is easier.

Note that our assumption on the function of KSA differs slightly from the traditional view espoused by, for example, Hunter (1986). In Hunter's view, cognitive ability impacts on job knowledge that, in turn, impacts on job performance. Although there was empirical support for this hypothesis, we have added an additional motivational path: In our theory, cognitive ability and job knowledge are resources that produce mastery experiences. Therefore, they lead to higher orientations that, in turn, lead to higher PI; higher PI then positively influences job performance. Of course, we do not deny that there is also a direct link between KSA and individual performance in the sense of Hunter's theory. This is entered as a broken line in Figure 1.

Environmental Supports

Environmental supports are job and organizational conditions that make it easier to show PI. Supports should have both direct and indirect effects on PI (the indirect effects should work via the orientations). We shall first concentrate on control and complexity at work and their relationship to control aspirations, control appraisal, and self-efficacy. Our model (Figure 1) specifies that control and complexity work via the mediators of orientation. This is in contrast to models that posit a direct effect of control and complexity on performance (Greenberger, Strasser, Cummings, & Dunham, 1989; Karasek & Theorell, 1990; Kohn & Schooler, 1982; Spector, 1986; Wall & Jackson, 1995). Similar to Hackman and Oldham's (1975) critical psychological states, we also have a mediator model, although Hackman and Oldham did not study the same specific psychological states as mediators.

Whenever control at work is thwarted, helplessness appears (which implies a decrease of control and responsibility aspirations; see Heckhausen & Schulz, 1995; Seligman, 1975; White, 1959). Opposite ideas also exist, and were advanced by reactance theory (Wicklund, 1974) and by Greenberger and Strasser (1991): Lack of control leads to higher control aspirations in these theories, because people are motivated to regain control when they believe they are in a noncontrol situation. We agree with Wortman and Brehm (1975) who combined reactance and helplessness theories. In the short term, lack of control can actually increase aspirations for control, as reactance theory suggests (Wicklund, 1974). However, if the attempts to increase control are thwarted for a longer period of time, learned helplessness develops (Wortman & Brehm, 1975). The latter is the case when there is little control at work and the situation is not changeable. Thus, lack of control leads to a reduction of control aspirations in the long run.

Both job control and complexity should influence the second orientation, control appraisal, that is, the belief that there is control at work. If people have control and complexity in the work situation, it is likely that they also expect future job situations to be controllable (this also follows from attributional theory, see Abramson et al., 1978). Thus, having control at work increases one's control aspirations. Furthermore, control and complexity should also impact on self-efficacy,

because they make it possible to have mastery experiences. Bandura (1997) showed that mastery experiences lead to higher self-efficacy.

We tested the assumption that control and complexity at work influence PI via the three mediators (control aspirations, control appraisals, and self-efficacy) in a four-wave longitudinal study (eastern Germany longitudinal study: Frese, Garst, et al., 2000). Control and complexity at work affected the orientations of control aspirations, control appraisal, and work-specific self-efficacy, which, in turn, led to higher PI. Personal initiative, in turn, led to higher control and complexity of work. We shall discuss the implications of this reciprocal relationship between environmental supports and PI in more detail below.

Parker (1998) used a construct slightly different from PI. She defined those with "role breadth self-efficacy" as people feeling "confident that they are able to carry out a broader and more proactive role, beyond traditional prescribed technical requirements" (p. 835). Her longitudinal study showed similar results to ours on the role of control and complexity: Job enlargement (which implies that there was a higher degree of control and complexity at work) and good communications in the job were predictive of positive changes in role breadth self-efficacy (see, also, Parker, Wall, & Jackson, 1997). On a group level, groups with a high degree of self-management showed more voice, with voice being defined as "speaking out and challenging the status quo with the intent of improving the situation" (LePine & Van Dyne, 1998, p. 853).

Figure 1 argues that stressors should have a positive relationship to PI. At first sight, this may seem counterintuitive. However, the argument is that stressors are signs that something is wrong. Therefore, stressors activate employees to deal with the negative situation in order to improve it. This may lead to higher change orientation and control aspirations, and, in turn, to higher PI (see, also, Karasek, 1979). Indeed, Fay and Sonnentag (1998) found that stress at work contributed to a higher degree of PI. This may be one of the few positive functions of stressors.

Figure 1 also displays the hypothesis that support for PI is related to PI. Interestingly, perceived supervisor support for PI does not seem to be a crucial variable. In both our longitudinal study (unpublished data) and in a study on suggestion making in blue-collar workers (Frese, Teng, & Wijnen, 1999), direct supervisor support was not related to higher PI. We think that the general climate or culture of a company may be much more significant for showing PI. Morrison and Phelps (1999) showed that top management openness was important for the development of PI (in their study, they used the concept of "taking charge," which is very similar to PI). Top-management openness to initiative probably measures employees' impressions regarding the organizational culture. In another study, we have developed a measure of organizational climate for PI. This measure on the company level related to the profitability of medium-sized companies (Baer & Frese, 2001).

Further evidence for the relevance of environmental support comes from the literature on “issues selling.” Issues selling is defined as “a voluntary, discretionary set of behaviors by which organizational members attempt to influence the organizational agenda by getting those above them to pay attention to issues . . .” (Ashford, Rothbard, Piderit, & Dutton, 1998, p. 24). Ashford et al. (1998) showed that perceived organizational support, top-management openness, norms favoring issues selling, and relationship quality between respondent and the group were related to issues selling.

The Effects of Personal Initiative on the Environment

In defining PI we argued that active behaviors impact on the environment. With his concept of reciprocal determinism, Bandura (1997, p. 6) suggested that “internal personal factors in the form of cognitive, affective, and biological events; behavior; and the environmental events all operate as interacting determinants that influence one another bidirectionally.” In the area of occupational socialization, it has been posited that there are reciprocal relationships between being influenced by the work situation and changing one’s work situation (Kohn & Schooler, 1978; Semmer & Schallberger, 1996). The latter requires active participants in the socialization process (“. . . socialization is a process affected not only by organizational initiatives, but also by newcomer initiatives.” Morrison, 1993, p. 173). Newcomers in a job change their roles and the job content (Ashford & Black, 1996; Ilgen & Hollenbeck, 1991), and they are, therefore, able to change the job as well. In this sense, we hypothesize reciprocal relationships between work characteristics (environmental supports) and PI.

In the previous section, we described the process by which two aspects of environmental support—job control and complexity—affect PI. We also propose that PI as an active approach to work should eventually exert an influence on work characteristics. Two mechanisms may play a role here: First, people with high PI may generate some added complexity and control in given jobs. We pointed out that the tasks of a job are not fixed, and that there are emergent elements (Hacker, 1986; Ilgen & Hollenbeck, 1991). The person who takes the initiative to develop and implement a good, long-term solution for the company's homepage adds complexity to her job. Simultaneously she increases her job control, because she needs to make decisions and she takes responsibility for something that is not part of her normal role. Increased control and complexity can be transitory (until she has finished the design of the homepage), or permanent (when she decides to take care of the homepage in the long term in order to keep it up to date). Work then becomes more interesting and more controllable; and she might be further encouraged to improve work procedures by showing PI. Superiors can play a role in this process: If the supervisor observes that a certain team member takes care of neglected issues and works self-reliantly, the supervisor may feel that this is a reliable team member who can be assigned tasks that involve more responsibility and control.

A second mechanism involves job change. People with higher PI may use job changes to obtain more challenging work. People with higher PI may also be more successful in finding challenging jobs because it has been shown that they give others the impression that they will do a job well (Frese et al., 1997). Challenging jobs include tasks with a higher degree of control and complexity.

Each of the above mechanisms requires a certain amount of time to unfold. Frequently, it will take some time before a superior realizes that the person taking care of the homepage can handle tasks that involve added complexity and responsibility. Organizational changes such as reorganizations, new supervisors, and so forth may help to speed up this process. Similarly, resigning a job (or losing it) and searching for another one is normally not a frequent event and, thus, takes time to unfold. Kohn and Schooler (1978) found a lagged selection effect of intellectual flexibility on the complexity of the job with a time lag of 10 years in the United States. In a different area, Wilk, Desmarais, and Sackett (1995) found that people in the United States gravitated to jobs commensurate with their ability within a 5-year period. In a transitional economy, such as eastern Germany, we found these lags to be only 1 year long (Frese, Garst, et al., 2000).

Another area in which one can study the effects of PI on the environment is entrepreneurship. Entrepreneurs are often the “prime movers” (Locke, 1997) who change the business environment. Personal initiative is higher in people who want to set up a business and in those who are business owners (Frese et al., 1997). Being a prime mover is true not only for the highly successful and well-known business leaders (such as Bill Gates) but also for many small-scale entrepreneurs. Koop, De Reu, and Frese (2000) described a case study of a high-initiative African entrepreneur who explored various business opportunities until he found a viable market niche that had not been serviced before (in this case, producing rubber stamps and business cards, which nobody else was producing in Kampala at that time). There are many ways to influence the environment through an active approach.

Personal Initiative and Individual and Organizational Performance

The more people deviate from a prescribed or conventional path, the more they show personal initiative. However, we can only talk about PI if the task is still performed effectively even when the person did not follow the normal and prescribed approach. Otherwise deviations from the prescribed path may be due simply to inefficiency or mistakes.

Actions that lack a pro-company orientation do not signify PI. People can take initiatives that have functional value only for them, but not for the organization. The person taking care of the homepage could try to offer customers who have been newly attracted to the organization a private service outside company time, charging them a discount price. She would certainly be pursuing a self-starting goal; and it would also be proactive if she intended to open her own business.

However, as she harms her employer's business, this has no functional value for the organization. For this reason, we would not call it PI.

We need to have more empirical data on which antecedents are effective for predicting organizationally functional versus dysfunctional initiatives. Our hunch is that we can apply a similar differentiation to that in charismatic leadership. Howell and House (1995) differentiated between personalized (narcissistic) and socialized charisma. Similarly, PI can be purely self-serving or can have an extended perspective that embraces the group and/or the organization. For the time being, we take the perspective of the organization: If it is to be called PI, a self-starting goal must have at least potentially a functional value for the organization and must not be intended to harm it.

Our studies have supported the notion that PI has positive outcomes for the person exhibiting it, and that PI contributes to the overall effectiveness of an organization. Unemployed persons with a high degree of PI were able to find a job faster than those with low PI (Frese et al., 1997). Personal initiative related to developing clear career plans and to executing them (Frese et al., 1997). It also related to employability as rated by interviewers in eastern and western Germany (Frese et al., 1997). Personal initiative related positively to individual performance: For example, in a sample of university students, those with higher PI had better high school grades (Fay et al., 1998). Van Dyne and LePine (1998) showed that voice was significantly related to estimates of individual performance by peers, the self, and by supervisors. People with high PI are more self-reliant and independent when they have to acquire new knowledge. In an experiment, college students had to learn a computer program by exploring the system. Those with a higher degree of PI sought less help and reassurance from the trainer and tried to overcome problems by themselves (see Fay & Frese, 2001).

Small-scale business owners' PI was related to their firms' success in eastern Germany (Zempel, 1999) and Uganda (Koop, De Reu, & Frese, 2000). In an additional set of studies on small-scale business owners, we found evidence for a relationship between owners' active action strategies and the success of their business (Frese, 2000; Frese, van Gelderen, & Ombach, 2000). In these studies we looked at how small business owners pursued their goals. The clearest results emerged for the so-called reactive strategy: A reactive strategy implies that the owners attempt to follow market leaders, competitors, or people who might give them recommendations. However, this means that they are following the crowd and they often copy other owners' approaches to business. The implication is that there is lack of PI in these reactive owners because they do not attempt to set self-starting goals, they are not proactive, and they do not overcome barriers (nonetheless, it is possible to copy and still exhibit high PI as well; e.g., some Asian companies combine a copycat strategy with a low price strategy—in this case, the companies self-started this unique combination of strategies that capitalized on their strengths).

Empirically, the reactive strategy is related to failure. A longitudinal study showed a circular effect (Van Gelderen, Frese, & Thurik, 2000). A reactive strategy (i.e., a strategy that is opposite to high PI) led to nonsuccess, and nonsuccess led to a higher use of reactive strategies in business. Apparently, the crisis that ensues because of impending failure leads business owners to adjust to environmental demands instead of developing a proactive and independent strategy. As a result, we found a beneficial (or vicious) cycle in two longitudinal studies with PI leading to more positive conditions that, in turn, contributed to higher PI (Frese, Garst et al., 2000; van Gelderen et al., 2000).

PI also benefits organizations when it is widespread within a company. In a sample of medium-sized German companies, pro-initiative climate related substantially to a company's profitability (Baer & Frese, 2001). This means that a widespread use of PI in an organization improves its ability to deal with challenges. One particular challenge is the introduction of process innovations (e.g., process re-engineering or just-in-time production) and here climate for initiative proved to have a moderator effect: Process innovation efforts resulted in higher profitability only for those companies that showed a strong climate for initiative (Baer & Frese, 2001). Reasons are that innovations produce disruptions, and employees have to prevent problems and deal with errors that lead to serious disruptions in production (pro-activity). Moreover, actions and ideas that help production need to be self-started because the supervisor cannot be present all the time to give orders (self-starting). Finally, difficulties and problems are met with a persistent approach to overcome them (overcoming barriers). All of these factors should help to increase smooth production and, thereby, increase company performance. Therefore, a climate for initiative should increase general organizational level performance.

Thus, we propose that exhibiting initiative leads to positive outcomes for both the individual and the organization, because PI means dealing actively with organizational and individual problems and applying active goals, plans, and feedback. This furthers individual self-development and contributes to organizational success. At least in those environments in which it is necessary to deal with a changing world, PI is important.

This concludes our discussion of the theoretical model shown in Figure 1. We have attempted to show that environmental supports, KSA, and personality influence orientations, which, in turn, influence PI. We have also argued and presented empirical data that support the relationship between PI and high performance, both individually and organizationally.

Personal Initiative and Other Concepts

We think that the PI concept can be used to sharpen and possibly modify the following concepts that overlap with it: reciprocal determinism, organizational citizenship behavior, innovation, entrepreneurship, job performance, self-regulation, and intrinsic motivation.

Reciprocal Determinism

Bandura's (1989) agency theory hypothesized that self-efficacy as a belief directly affects changes in the environment. The concept of PI may be an important "missing link" in this process: It is only when self-efficacy is translated into initiative that there is also a change of the environment in the sense of reciprocal determinism. Empirically, PI turned out to be a mediator between self-efficacy (as part of the control beliefs and aspirations) and the change of the work situation (Frese, Garst, et al., 2000). This may suggest some of the boundary conditions of the self-efficacy concept: When there is a high degree of conservatism and little change orientation, high self-efficacy should not result in an attempt to change the environment.

Organizational Citizenship Behavior (OCB)

Both organizational citizenship behavior (OCB) and PI go beyond direct role requirements, and both are seen to contribute indirectly to organizational effectiveness (see Organ, 1988 for OCB). However, there are also differences: Empirically, OCB is composed mainly of two factors: altruism and compliance. Compliance has a more passive connotation, for example, conscientiousness in attendance ("does not take extra breaks"), adherence to rules, and so forth. In contrast, the concept of PI often implies ignoring or even being somewhat rebellious toward existing rules and regulations. OCB takes the framework of the supervisor as the starting point: How helpful is the worker from the supervisor's perspective? However, supervisors often fail to support PI and even punish active approaches. We think that the time perspective is different: A worker with high PI contributes to long-range positive outcomes for the organization, but in the short term, he or she may well be a nuisance factor to the department because he or she is frequently suggesting and pushing new ideas (some graphic descriptions on this issue can be found in Peters & Waterman, 1982). In contrast, OCB is oriented more toward a short-term positive social orientation at the work place. Van Dyne and LePine (1998) argue similarly that OCB preserves relationships and helps to increase interpersonal harmony, whereas their concept of voice (which is similar to PI) includes constructive challenges and "innovative suggestions for change and recommending modifications to standard procedures even when others disagree" (p. 109).

An important predictor of OCB is job satisfaction (Organ, 1988). Personal initiative, in contrast, should not be related to this (or the correlation should only be small). Satisfaction does not itself contribute to energizing behaviors, because there is less need to show PI when conditions are positive. Only the pro-company function of PI may be related to job satisfaction. Empirically, it has been shown that PI correlates only slightly with job satisfaction (below .20, see Frese et al., 1997; Parker, 2000).

Probably the most important contribution of the PI concept to the OCB literature is that it sharpens the concept of altruism at work (Fay et al., 1998). Altruism (the most important component of OCB) can be either self-started or not. For example, if a worker asks another for help and the second person complies, this is an act of altruism. But it is not PI. However, if the second worker sees that the first one is hopelessly behind schedule and offers help, this is altruism and PI. Moreover, it is a qualitatively higher form of PI if the second worker shows the first one how to deal with the work in such a way that this negative situation will not reappear. Active helping is said to lubricate the social fabric of the organization (Organ, 1988). There is also evidence that a high degree of helping in work groups (something that is probably related to PI, see below) leads to high organizational performance (Podsakoff, Ahearne, & MacKenzie, 1997). We assume that it is the active form of help that relates most strongly to organizational effectiveness.

Innovation

Innovation leads to new processes, products, or procedures (West & Anderson, 1996). The usual emphasis of the innovation literature is on developing something “new,” and it is, therefore, tied to creativity research (Amabile, Conti, Coon, Lazenby, & Herron, 1996). We think that there has been too little emphasis on the issue of implementation in innovation research. Although some authors, for example, West and Anderson (1996), integrate it into their definition, innovation theory and research in general has not elaborated the implementation process. An innovation process usually starts out with getting ideas on how to improve something. After an idea has been developed, it needs to be tested and implemented. Conditions are frequently not conducive to testing and implementation, and, therefore, a self-starting approach is required to implement an innovation. We think that the implementation process could be aided by our concept of PI because PI emphasizes overcoming barriers and initiating self-starting processes. Hence, we propose an integration of innovation and PI theorizing and research. Innovation relates to the “newness” of the approach; PI, to implementation and to its self-starting nature.

Entrepreneurship and Entrepreneurial Orientation

PI could provide entrepreneurship research with its proper psychological base. Entrepreneurs score higher on self-starting activities and overcoming barriers than the rest of the population (Frese et al., 1997). It is in the very nature of being an entrepreneur not to be told what to do and to be faced with a continuous need to change and stay ahead of the market (which means having to overcome many barriers). Empirically, PI has been found to correlate with entrepreneurial success (e.g., with Ugandan microbusiness owners; Koop et al., 2000). In these studies, PI also related to entrepreneurial orientation—a concept used in entrepreneurship research that includes high autonomy orientation, competitive aggressiveness, risk taking, pro-activity, and

innovativeness, and that has been shown to be related to entrepreneurial success in a number of studies (Lumpkin & Dess, 1996).

Performance Research

Performance research in work and organizational psychology has been concerned mainly with a relatively narrow view of task performance. A task is given (by the supervisor or by the organization), and if it is completed effectively and efficiently, this constitutes high performance. The concept of contextual performance has overcome this narrow relationship of the performance concept to the organizationally prescribed task (Borman & Motowidlo, 1993) and broadened the concept to include changing the task itself as a potentially important aspect of performance. Personal initiative is, therefore, one part of this general movement away from a relatively passive performance concept. However, PI goes one step beyond contextual performance: Its central issue is that individuals take action to form and create their own tasks.

Similar arguments can be made with regard to goal setting theory (Locke & Latham, 1990) that is rightfully one of the most influential performance theories in work and organizational psychology. Goal setting theory assumes that a goal (a task) is given, but it looks less at the process of developing goals and tasks in a self-starting way (as mentioned above, we conceptualize self-started goal setting as one of the processes contributing to PI, see Table 1).

Intrinsic Motivation

Behavior is intrinsically motivated when it is engaged in freely because of the inherent interest in, satisfaction with, and enjoyment of doing the activity. In contrast, behavior is extrinsically motivated when its purpose is to gain material or social reward; that is, when the goal of the activity is the pursuit of a valued outcome and not the activity itself (Deci & Ryan, 1985). The overjustification effect is central to research on intrinsic motivation. It argues that extrinsic rewards may have detrimental effects and corrupt intrinsic motivation. Results of recent meta-analyses confirm this negative effect (Eisenberger & Cameron, 1996; Rummel & Feinberg, 1988; Tang & Hall, 1995). However, there are conceptual problems and paradoxes that make it difficult to apply intrinsic motivation concepts at work. We think that there are three major problems (see Fay & Frese, 2000c):

First, at work, one usually performs tasks that are externally given and not completely self-developed. Therefore, one cannot speak of work being "done freely" as required in definitions of intrinsic motivation.

Second, as in most applied settings, job behavior is affected by a multitude of factors. Some are external rewards (e.g., money); others are internal (e.g., interest in a certain type of task). An important motivator at work is pay: Employees expect a "monetary reward," that is, a salary. If one stops paying people, they usually stop working—even those who enjoy their job very much. There

are also other extrinsic rewards involved in work, for example, receiving approval from supervisors or colleagues or being promoted. According to intrinsic motivation theory, the more one gains extrinsic rewards, the smaller the intrinsic motivation. Therefore, the ubiquitous presence of extrinsic motivators in the domain of work excludes the possibility of being truly intrinsically motivated. On the other hand, people report being intrinsically motivated in spite of receiving monetary rewards.

Third, the hallmark of intrinsic motivation is the experience of positive feelings such as enjoyment, satisfaction, and pleasure. Using intrinsic motivation as a framework to understand self-starting behavior at work requires self-starting behaviors to be accompanied by positive emotions and positive affect. This is untenable. There may well be positive relationships between positive emotions at work (i.e., job satisfaction) and work behavior (i.e., performance; see Iffaldano & Muchinsky, 1985); however, it is often a negative emotion, for example, dissatisfaction with a particular process, that leads to self-starting behavior. Sometimes dissatisfaction triggers active behavior because someone wants to change something for the better.

Thus, the concept of intrinsic motivation leads to certain difficulties when applied to the domain of work. We think that our theory of PI may be more useful for understanding self-starting behaviors at work. We have conceptualized self-starting to mean that there is a high psychological distance between some path taken as part of PI and the “normal” path. This implies that one can show self-starting actions in spite of positive and negative external reinforcement contingencies. Therefore, we do not need the construct of intrinsic motivation to understand that self-starting actions are possible at work. Moreover, the PI concept can explain how self-starting behavior can be maintained in spite of monetary rewards.

Self-Regulation

We view our research and theorizing on PI as one aspect of a general theory of self-regulation. Personal initiative has a clear overlap with various views on self-regulation (e.g., Bandura, 1991; Castaneda, Kolenko, & Aldag, 1999; Karoly, 1993). Since self-regulation guides goal-directed activities in spite of challenges and failures (Karoly, 1993), there is no PI without self-regulation. As a matter of fact, the defining issues of PI, namely, self-setting goals, pro-active approaches, and persistence in spite of barriers, have also been discussed in the self-regulation literature (Bandura, 1991; Karoly, 1993). The major difference between our attempt to conceptualize and measure PI and the self-regulation literature is that we are more concerned with actions in the naturalistic setting of organizations. The emphasis on actions has led us to focus more on high performance as a function of PI, both on the individual as well as the organizational level. The fact that we are interested in actions within organizations has led us to develop a measure of PI that can be used in the field. This helps us to transcend the limits of an experimental approach in

which it is difficult to study self-starting goals, because experiments, by their very nature, restrict behaviors to non-self-started actions.

Limits of the Personal Initiative Concept

There are limits to the usefulness of PI, because there are situations in which it does not have positive consequences. First, if knowledge and skills are inadequate in an area, high PI can often have rather negative consequences. Think of a person who aspires to be an acclaimed scientist in psychology, shows a high degree of PI, does experiments, and tries to publish them, but has not mastered the discipline's methodology, theory, and practice. The result will probably be not only disappointing but also downright embarrassing. However, even in such a case, learning processes may be stimulated by a high degree of PI.

Second, individuals can take the initiative in an area of work in which it is not required. For example, someone might take the initiative to improve the technical side of a service, whereas the organization would benefit much more from an initiative to enhance customer orientation, because it is already highly competitive in technical terms. Thus, it can be argued that initiative may be beneficial only if it is based on the right ideas and goals. Nonetheless, we think that such a viewpoint may be true only in the short term. If one takes a dynamic viewpoint, PI includes an active approach to information collection and to getting (negative) feedback. Therefore, high-PI individuals have steeper learning curves and will develop better models of the world. As they have a stronger tendency to act, they will also obtain more feedback (since feedback is dependent upon doing something in the first place). Finally, since high PI leads to more changes in the environment, high-PI people will do better experiments to find out what the crucial issues are and will, therefore, develop better ideas on what needs to be done. Obviously, this does not mean that high-PI individuals are always right in what they are doing. However, it means that they have a tendency to get to know the environment better and thereby develop more adequate goals and approaches in the long run.

Third, even though PI implies that one does not give up readily, there are situations in which giving up is strain reducing (Schoenpflug, 1985). An example from the social area is when people are unable to accept the fact that their spouses or lovers have left them; a high degree of PI with the goal of keeping the relationship intact may lead to negative effects for all concerned (this is, of course, not the case if the goal of PI is to get out of the situation and to find another partner). Wisdom implies that it is sometimes better to “let go” (Baltes & Staudinger, 1993). Another area in which it is necessary to give up is a situation of escalating commitment in which a company continues to use a strategy in spite of evidence that it is dysfunctional (Staw & Ross, 1987).

Fourth, there are situations in which PI may have positive effects in the long term, but negative effects in the short and middle term. Martyrs often show a high degree of PI to accomplish

a long-term goal, but suffer very negative short-term effects! In organizations, innovators, who persist on a path that their supervisors do not appreciate, may even be sacked, although in the long run, they may develop new business opportunities (Peters & Waterman, 1982).

Fifth, PI assumes a certain degree of autonomy in the individual, though, of course, with limits. Some management consultants have argued for an extreme position of self-motivation that does not allow any influence of the environment and assumes that decisions can be reconsidered one more time under any circumstances (e.g., in Germany, Sprenger, 1998). This, of course, is not always the case. Autonomy can exist only to a limited extent (Bandura, 1989). Thus, self-starting should not be taken as an absolute, but rather as a relative term in a comparison with other people in a similar situation. From this perspective, one can show PI even in highly restrictive situations.

Finally, PI extends beyond the given job descriptions. Therefore, PI always carries the risk of not just going beyond the job requirements but also beyond what management wants their employees to do. This can become a problem when it is difficult to evaluate whether the benefits of an initiative will outweigh the costs. Donald Campbell (2000) gives the nice example of an airline employee who goes beyond the call of duty in helping a customer to actually reach a destination in spite of all odds, but with considerable costs to the company (the employee's manager was not amused in this case). Donald Campbell goes on to argue that there is an initiative paradox: A firm cannot "tap into the positive aspects of employees' enterprising qualities without the likelihood of some unpredicted and unexpected [and unwanted] outcomes" (p. 59). Campbell also argues that some companies (such as defenders) will be less likely to want high-PI employees, whereas other firms (such as prospectors) value those employees. Campbell rightly calls attention to the fact that people need to possess good judgment on where to use PI and where not to use it. Moreover, supervisors and employees may differ on whether it was right to use PI or not. How such situations are solved probably depends on the company climate (climate for initiative, Baer & Frese, 2001). If supervisors "tighten the screws" or severely reprimand the high-PI employee, PI will eventually decrease in such organizations (and possibly organizational performance as well).

Discussion and Conclusion

Originally, we were interested in understanding the phenomenon of personal initiative. In other words, we wanted to comprehend the differences between, for example, a blue-collar worker who thinks of how his or her machine works and how to service it better and his or her colleagues who just follow orders exactly; between a manager who just uses a self-developed approach and managers who want to "play it safe" and, therefore, benchmark everything; between the entrepreneur who develops a product in spite of great difficulties and the business owners who follow painstakingly what consultants tell them to do; and between the scientist who influences the

field and those who just hop on the bandwagon of research once a research tradition has been established.

Our theorizing was greatly influenced by German action theory (Hacker, 1985) and its dictum that having an active orientation toward the environment is a natural state for humans and that work is an expression of precisely this active orientation (no doubt Leontjev's theory is important here as well, see Kozulin, 1986). Two other theories and findings that influenced us were learned helplessness theory (Seligman, 1975; we think of PI as the opposite of learned helplessness) and the active socialization concepts developed by Ashford and Tsui (1991) and Ashford and Black (1996). After we had already started our research, the concept of contextual performance (Borman & Motowidlo, 1993; Motowidlo, Borman, & Schmit, 1997) helped us to frame our ideas as a performance concept.

After a while, we recognized a paradox that accompanies a large part of performance research. On the one hand, there is no nonactive performance—in every case, performance means to do and act and accomplish a goal. On the other hand, there are clearly differences in performance: Some people just do what they are told, often with a lot of effort and energy but leave it at that, whereas others take what is often a much more complicated route of probing, experimenting, thinking along, changing, challenging, and starting something by themselves. Since most people commonly define work as active behavior (goal-oriented behavior), they have difficulties in thinking of “active” work. But this is precisely what PI means. We originally thought that PI is best described as contextual performance (and said so in Speier & Frese, 1997). However, we now think that PI as self-starting, proactive, and overcoming barriers is orthogonal to the dichotomy of task and contextual performance. One can be active and “reactive” in both areas, as shown in the examples above.

Such thinking changes common conceptualizations of performance. A large part of work and organizational psychology tends to think that performance means to deal with tasks as “given,” and that one has to “adjust” to the conditions and situation to be able to perform well (see Staw & Boettger, 1990). The PI concept suggests that, in principle, there is an enormous array of self-starting goals in between a given task and doing something (the redefinition problem), and that we can (and often do) change the conditions under which we work. Obviously, we have not been the first ones to grapple with such issues. As a matter of fact, many concepts from motivational theory, such as intrinsic motivation (Hackman & Oldham, 1976), theory y (McGregor, 1960), self-actualization (Maslow, 1943), self-regulation, to name just a few, have advanced our knowledge on these issues. Our purpose has been to increase the conceptual clarity in this field by attempting an integrative approach (see Table 1) and presenting a model with antecedents and consequences.

Table 1 presents the core of our conceptualization of PI. Self-starting may refer to goals, to active search, to active plans, and to self-developed feedback. Being proactive—that is, taking a long-term perspective with regard to problems and opportunities—can affect goals, information collection, planning, as well as monitoring and feedback processing. Finally, overcoming barriers means that goals, information collection, planning, as well as monitoring and feedback processing are protected against frustration and difficulties. This approach is integrative and makes it possible to see a common approach to research in such diverse areas as redefinition of tasks, training, human factors, job design, problem solving, entrepreneurship, organizational socialization, and self-regulation of emotions.

A high degree of PI allows a person to make full use of the challenges and opportunities and even to create them. People can be active participants in a rapidly changing world of work. From the perspective of PI, we supplement approaches that suggest people should adapt to the new requirements of working in the future (see Pulakos et al., 2000). From the point of view of PI, it is not enough to adapt; one has to take care of oneself in the sense of being the entrepreneur of one's own career (Bridges, 1995).

Antecedents and Consequences and Theoretical Implications

Figure 1 describes a model of how PI develops. The general approach of differentiating between personality and KSA (knowledge, skills, and abilities), environmental supports, and orientations as (distal and proximal) antecedents of PI should be useful for future research.

We suggest that PI is a valuable construct that helps us to understand whether, when, and why organizational policy changes translate into organizational performance improvements. For example, PI could be a mediator or moderator for the effects of human resource management, for change management, for the self-organization of groups, and for organizational learning. In such a way, it would be possible to increase the precision in predicting which effect these organizational measures have on performance.

PI may be one of the factors that mediate between human resource management systems and organizational performance.⁵ Whereas there is evidence on a relationship between installing a human resource system and organizational performance improvements, there are many questions regarding which processes are relevant for this finding (Becker & Gerhart, 1996). Personal initiative should be an intervening variable, because most human resource approaches have an activating effect. For example, different training procedures may have similar effects on PI because they all enhance the idea that one can actually do something about improving work and improving effectiveness. Work teams, quality groups, and job redesign all have the effect of making people more active vis-à-vis their work situation. This explains why quite different human resource procedures may have similar effects. Although these remarks are certainly speculative at the present

time, we have shown empirically that enhanced qualifications, increased control and complexity at work, increased control aspirations and expectancies, change orientation, and so forth all exert an influence on personal initiative. All these factors should be influenced by human resource practices. Moreover, climate for initiative has been shown to relate to organizational performance (Baer & Frese, 2001). Thus, PI may be an intervening variable for the relationship between human resource practices and company performance.

The effects of change management on performance should be moderated by the degree of PI as a climate factor in an organization and by the individual degree of PI. Organizational changes need to be welcomed by the individuals, and, because changes always imply that new solutions need to be found on all levels of the organization, PI is needed on all of these levels. Accordingly, we found an interaction effect of climate for PI and process innovations on organizational performance (Baer & Frese, 2001). We also think that PI may be a mediator in the sense that change management processes that increase PI lead to better performance measures than change management processes that increase a more reactive approach.

Our arguments suggest that the concept of PI may be one factor that determines whether self-organizing teams are effective. There is a large and differentiated literature that argues for the self-organization of organizations and teams (e.g., Clegg, 2000; Emery & Trist, 1969; Katz & Kahn, 1978; Trist & Bamforth, 1951), but self-organized teams are not always successful (Beekun, 1989; Pasmore, Francis, Haldeman, & Shani, 1982). We suggest that management practices, job conditions, selection, and prior experiences that favor PI (as described in Figure 1) should help self-organization to succeed (Parker, 1998). Personal initiative should be the mediator that contributes to organizational and team effectiveness, because self-organization does not work without the stance of self-starting, being proactive, and overcoming barriers. Whereas management is able to compensate for lack of employees' PI in traditionally managed groups, this is not possible in self-managed teams.

We also think that organizational learning could profit from the PI perspective. First, self-starting exploration is one aspect of PI (see Table 1). Second, our studies show that PI is related to people attempting to find things out themselves rather than relying on others in the learning process (Fay & Frese, 2001). Third, double-loop learning—learning by questioning old norms or procedures—requires an active approach. As a matter of fact, active exploration has proved to be superior in training (Dormann & Frese, 1994). Finally, a high PI organizational climate may relate to a learning culture, because learning is based on acting, exploring, and dealing with errors (Van Dyck, Frese, & Sonnentag, 2001).

Research Implications

We are still at the beginning of the development of the PI concept. Therefore, research is needed to tie loose ends and to answer relevant questions. A few such questions will be discussed shortly in the following.

We still have little knowledge of the microprocesses that elicit the development of PI. Since PI is motivated by multiple goals, there is no specific pattern of motivators leading to it. Motivators may be related to anticipation of short- and long-term positive outcomes (e.g., ease of work, improvement of work process, a reduction of a stressor, a reward, increase in competencies) that may also involve one's emotions (e.g., pride, feeling valued by others). Research should also study the interplay between motivators on the one hand and qualification and cognitive ability on the other hand in the production of PI.

Microprocesses should also be involved in the impact of stressors at work and dissatisfaction on PI. When people are stressed and dissatisfied, they are more likely to take PI right then and there. However, in the long-term, they may be quite satisfied with the work place and have little stress because they are able to change their job conditions by displaying high PI.

Barriers may sometimes lead to giving up PI and sometimes may actually increase the motivation to pursue a self-set goal; this needs to be understood on the micro level. One theory that might help to cast light on these processes is the Rubicon theory presented by Heckhausen, Gollwitzer, and coworkers (Gollwitzer, 1993; Gollwitzer, Heckhausen, & Ratajczak, 1990; Gollwitzer, Heckhausen, & Steller, 1990; Heckhausen & Kuhl, 1985). This theory differentiates between goal intention and implementation intention. The goal intention implies that one is motivated to pursue a certain goal. However, this does not imply full commitment to an action; full commitment is a consequence of an implementation intention, which, in turn, results from having a plan of action. After an implementation intention is formed, people are in the actional phase in which there is a high degree of commitment to the goal (much higher than in the phase before an implementation intention has been formed), and all actions are geared toward the goal in spite of difficulties, barriers, and scarce resources ("implementation intentions commit the person to executing an intended goal-directed behavior once the specified situational context is encountered," Gollwitzer, 1993, p. 152). The Rubicon theory suggests that rational choice approaches are useful before an implementation intention is formed. Thus, a rational choice concept such as Vroom's (1964) value x expectancy model explains that a high degree of barriers (or of low expectancy) leads to giving up a goal. However, after forming an implementation intention (after an action plan is formed), barriers should actually increase efforts to overcome the goal. Thus, overcoming barriers in the pursuit of an action that has already begun leads to a higher persistence than a situation in which the action plan has not yet been formed. According to this theory, high-PI people

may be faster in forming an implementation intention or they may be better in developing action plans than low-PI people.

We have argued that supervisor support for PI should influence PI positively, but there is still little evidence in support of this hypothesis. We need to know more about the conditions under which help and support either erode or enhance PI. This is also important, for example, for the discussion on whether societal support (in the sense of welfare) helps or hinders the development of PI and under which conditions such effects appear.

Clearly, more research is needed on the relation between PI and performance. Whereas the evidence so far is interesting and suggestive, this relation needs to be made more watertight. It can also be supposed that there are additional moderators; for example, PI should have an effect on individual performance only when control at work is high enough.

PI may also function as a moderator of traditionally researched relationships. For example, Hunter (1986) argued that cognitive ability leads via knowledge and skills to higher performance. We would argue that PI should moderate the path from knowledge and skills to long-term performance. It is not enough to have high knowledge and skills; employees also have to implement knowledge and skills fully, and this often requires them to initiate and work on changes to achieve long-term high performance.

It is also interesting to look at the effects of PI on learning. Our argument was that high-PI individuals are superior in the long-term since PI enhances the rate of learning; high-PI individuals act more and receive better feedback; even when the individuals were wrong with their original approach, high PI helps them to get better feedback, producing a steeper learning curve. This needs to be verified empirically.

A further issue is the relationship between leadership and PI, particularly whether the performance effects of charismatic leadership could be due to an increase of PI (Bass, 1990). Since charismatic or transformational leadership has an influence on the general motivation and self-efficacy of the “followers,” and since visions give a general sense of direction, PI may be the important variable to be affected.

Practical Implications

There is a need for a better understanding of what happens when people show personal initiative. New job creation, use of innovation potential, protection of the environment, service provided by voluntary organizations—all these may be results of PI. In the affluent West, this may not be a matter of survival. However, in the underdeveloped world, PI impacts directly on the survival and the positive development of societies and cultures alike. If people were not to take the initiative to develop their own small companies and thus produce jobs in the informal sector, much of Africa would not survive, much less show growth. Microbusinesses are the most important

contributors to new job creation in these countries (McPherson, 1998). Thus, PI may be one of the factors that contribute not only to the development of societies and cultures but also to one's working life in such a way as to make it interesting and worthwhile.

We would like to argue that PI research may also help to understand the concept of employability, which is as yet little understood and not well defined. Employability implies that people are able to find another job and that they are able to handle the uncertainty of the modern job markets. In our studies, the impression of employability was higher in people showing high PI. Moreover, PI helped to find a new job after having been unemployed.

An important policy implication of our theory is that people in need should not just receive non-contingent help (which, given alone, may reinforce a "victim" image), but should be shown how to increase PI so that they can help themselves (e.g., in the case of unemployment). However, PI is more effortful than non-PI. Therefore, although people are glad to receive help when they know that this help does not have to be paid back, non-contingent help reduces the feeling of responsibility, which is one prerequisite for developing PI. We are now developing a training program to enhance PI by making people feel responsible for their own situation, for example, when they are unemployed (Frese et al., in press).

The most important practical implication for management is to increase PI by rearranging the organizational situation. This means that PI-enhancing conditions must be put in place, and that those orientations that increase the chance to show PI must be supported. In principle, we favor a contingency model: Highly volatile, unstable, hostile, and unpredictable environments as well as highly educated employees should make systematic organizational support for PI more functional than environments that are stable, munificent, and predictable (Parker et al., 1997; Wall & Jackson, 1995).

A final issue may be related to consulting: Consultants differ in the degree to which they present blueprints to their clients and to the extent to which they activate them (Rassam, 1999). We would suggest that those consultants who present detailed blueprints and present their clients with solutions for every step on the way reduce organizational initiative and might, therefore, have a negative effect on organizational performance. Such consultants present a copycat solution that is "normal" and routine in an industry and among competitors. As a result, the companies apply a reactive and passive strategy and do not self-start a solution to their problems, are not proactive with regard to future threats and opportunities, and do not overcome barriers by themselves. Personal initiative is eroded under such circumstances. Indeed, our findings show that reactive small-scale business owners do less well because they use more conventional, normal, and routine approaches to their business problems.

We think that there are various practical and research implications of PI which we have not yet discussed. As a new concept, PI should enhance the study of active approaches to work behavior (e.g., along the lines of Table 1) and we hope that this concept will contribute to understand the active nature of human work and organizations.

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Table 1

Facets of Personal Initiative:			
<u>Action sequence</u>	Self-starting	Proactive	Overcome barriers
<u>Goals / redefinition of tasks</u>	- Active goal, redefinition	- Anticipate future problems and opportunities and convert into a goal	- Protect goals when frustrated or taxed by complexity
<u>Information collection and prognosis</u>	- Active search, i.e., exploration, active scanning	- Consider potential problem areas and opportunities before they occur - Develop knowledge on alternatives routes of action	- Maintain search in spite of complexity and negative emotions
<u>Plan and execution</u>	- Active plan	- Back-up plans - Have action plans for opportunities ready	- Overcome barriers - Return to plan quickly when disturbed
<u>Monitoring and feedback</u>	- Self-developed feedback and active search for feedback	- Develop pre-signals for potential problems and opportunities	- Protect feedback search

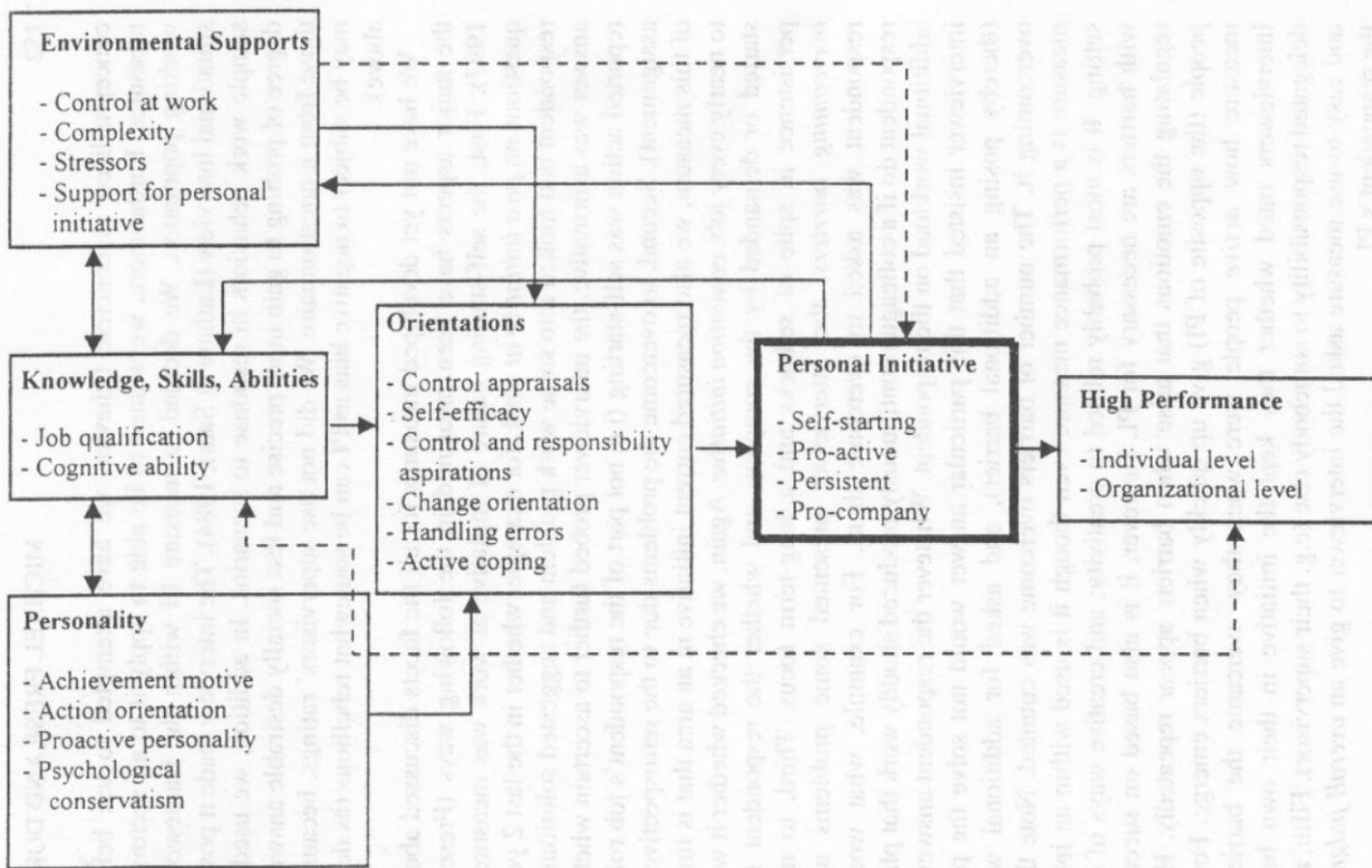


Fig. 1. Antecedents and Consequence of Personal Initiative.

Footnotes

¹ Goal setting theory also discusses “self-set” goals, but this does not mean self-starting in our sense. Self-set goals refer to setting goal difficulty but not to what kind of goals are approached.

² Frese and Zapf (1994) have used the term “orientation” to signify “collecting information and prognosis.” We have refrained from using orientation in this chapter, because we shall use it in a different sense further below.

³ There are, of course, some people who tend to show high PI even in short-term situations (such as in part-time or contract work). One reason may be that they have strong professional values and, therefore, suggest improvements even in temporary situations.

⁴ McClelland (1987) argues that a questionnaire measure of achievement motive is less valid and, therefore, recommends his specially developed projective technique. In one study (Fay et al., 1998), we used this projective technique to measure the achievement motive; however, there was no significant correlation with PI (unpublished data; see Fay & Frese, 2001).

⁵ We are grateful to David Guest for suggesting this idea.