

# The Concept of Critical Reflection and Its Implications for Human Resource Development

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**The problem and the solution.** Adult learning theory and HRD are both concerned with the learning processes of adults. But where adult learning theory concentrates fully on individual outcomes of learning, HRD always deals with the dilemma between individual and organizational outcomes. The concept of critical reflection, as developed within adult learning theory, contributes to HRD by showing the importance of both problem solving and problem posing for individual and organizational performance. The concept of critically reflective work behavior seems to be a bridge between individual learning and organizational learning. Dimensions of critically reflective work behavior, like reflection on the self in relation to the job, critical opinion sharing, asking for feedback, and challenging groupthink, not only prompt individual learning processes but also enable workers to optimize work practices or to critically analyze and try to change organizational values, thereby initiating double-loop learning processes at the organizational level.

**Keywords:** *critical reflection; self-reflection; adult learning; developmental learning*

Although it now seems to be common knowledge that the HRD field includes both learning and performance (Gilley & Maycunich, 2000), theories on work-related learning are still dominated by an economic-rationalistic output approach, which takes an instrumental view of work-related learning, and neglects the tension between the individual and organizational interest in learning. This article focuses on what the concept of critical reflection, as developed by scholars in the field of adult education, might contribute to the field of HRD. First, some important notions on critical reflection are discussed from the perspective of leading scholars on this topic in the adult education field. Next, there is a discussion of those

authors who either explicitly or implicitly have introduced the concept of reflection, critical reflection, or critical self-reflection to the workplace. The differences in their perspectives make us aware of the various functions that critical reflection has to HRD. Next is a discussion of how critically reflective work behavior was made operational in a research project on critical reflection at work (Van Woerkom, 2003) and what are the causes and effects of critically reflective work behavior. In conclusion, this article discusses the implications that the concept of critical reflection has for HRD research and practice by introducing the paradigm of adaptive learning.

### **Critical Reflection in the Domain of Adult Learning**

The concept of critical reflection was developed within adult learning theory. Because there is no one consistent theory on critical reflection, there is, however, little consistency in the definitions of the concept of reflection (Brooks, 1999; Calderhead, 1989; Van Bolhuis-Poortvliet & Snoek, 1996). Some speak of reflection, whereas others speak of critical reflection or critical thinking. It is often not clear what the difference is, or even if there is a difference, between these terms. Even Dewey (1933, 1938), who is perceived as the founder of the concept of reflection, sometimes uses the terms “reflective thinking” and “critical thinking” interchangeably (King & Kitchener, 1994). Dewey warned educators that mere “doing” or activity was not enough to produce learning. Doing should become “trying”—an experiment with the world, to find out what it is like (Raelin, 2000). According to Dewey, reflection is aimed at dealing with a confusing or problematic situation. Reflective thought is an “active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends” (Dewey, 1933, p. 9). It involves not simply a sequence of ideas, but a consequence—a consecutive ordering, in such a way that each idea determines the next as its proper outcome, and each outcome, in turn, leans back on, or refers to, its predecessors (Dewey, 1933, p. 4).

A well-known theory from the field of adult learning about experiential learning and reflection was developed by Kolb (1984), who related experiential learning to two types of memory. Episodic memory refers to specific, personally experienced events, whereas semantic memory refers to generalized knowledge, which transcends particular episodes. In experiential learning, personally experienced events are stored in episodic memory and used to construct generalized knowledge structures in semantic memory. Kolb represents this process in a learning circle, which goes from concrete experience to observation and reflection, to forming abstract concepts and testing in new situations. This learning circle can begin at any of the four

phases and should be seen as a spiral moving to new and improved experiences. Although each phase of the cycle is equally important, Kolb's theory is that people differ in their learning style, meaning that they prefer one of the four phases. In reaction to this theory, Jarvis (1987) showed that people might respond to a potential learning situation as nonlearning, nonreflective learning or reflective learning. Nonlearning occurs if the person does not respond to a potential learning situation. Nonreflective learning occurs as a result of experiences that are not really thought about, for example, in acquiring skills for a manual occupation, physical training, or the acquisition of language. Reflective learning occurs if the person considers it and makes an intellectual decision about it, as in reflective practice or in experiential learning, in which pragmatic knowledge may be learned.

One particular stream of theorists within the field of adult education has been strongly influenced by the critical theory of the Frankfurt School (Carr & Kemmis, 1986; Freire, 1970; Mezirow, 1990). In their view, reflection takes place within the frame of reference of an individual, who in turn embodies an internalization of societal and cultural norms and values. This makes reflection a socially and historically embedded process, which is political and thus shaped by ideology (Kemmis, 1985, as cited in Garrick, 1998). Thus, just as implicit learning does not mean that this learning is "good" or "true," the same applies to reflection. *Critical* reflection explores the personal and social framework within which one works, rather than just working within it (Garrick, 1998). One important theorist within this stream is Mezirow (1990). He defines *reflection* in the Deweyan sense as instrumental learning; it is the assessment of assumptions implicit in beliefs about how to solve problems. It may be an integral part of taking action, as well as an ex post facto critique of the process. In this definition, reflection thus also includes an element of criticism but refers more to instrumental thinking, which is concerned with how to solve a problem. In contrast, Mezirow defines *critical reflection* as addressing the question of the justification for the very premises on which problems are posed or defined in the first place and examination of their sources and consequences. Critical reflection cannot become an integral element in the immediate action process but requires a hiatus in which to reassess one's meaning perspectives and, if necessary, to transform them. Meaning perspectives involve criteria for making value judgments and for belief systems and are mostly uncritically acquired in childhood through the process of socialization. *Critical self-reflection* refers to the most important learning experience. It means reassessing the way we have posed problems, our own meaning perspectives, as well as reassessing our own orientation to perceiving, knowing, believing, feeling, and acting. Another theorist who has been influenced by critical theory is Paolo Freire (1970), who was committed to empowering oppressed peasants in

Brazil by teaching them to read and write. Doing this, he did not merely teach the instrumental and decontextualized skills of reading and writing; instead, he emphasized participation in the political decisions through a knowledge of reading and writing. In learning literacy skills, people were being forced to think about themselves as actors and to see that the existing situation was created by people (culture) and was not an unchangeable fact like nature (Bolhuis, 1995).

### **Critical Reflection in the Domain of HRD**

There are not many theories about critical reflection in the domain of HRD. Schön (1983), Argyris and Schön (1996), Nonaka and Takeuchi (1995), Marsick (1988) and Marsick and Watkins (1990) are some of the few important authors who have placed the concept of reflection or critical reflection in the context of the workplace. One explanation for this might be that the workplace is not the easiest context for critical reflection (Marsick, 1988). Critical reflection is often considered soft and irrelevant to the results-oriented and bottom-line world of business, and one might also question how critical that critical reflection in the workplace can be, given that the primary purpose of organization is productivity (Marsick, 1988). Also, just as within the field of adult education, authors in the field of HRD vary in their approach to critical reflection. Some emphasize the instrumental function of reflection in relation to problem solving (Argyris & Schön, 1996; Deming, 1986; Nonaka & Takeuchi, 1995; Schön, 1983), whereas others emphasize the emancipation of the individual to make free choices (Marsick, 1988). Authors in the field of HRD also vary in the terminology they use to indicate critical reflection. Terms like knowledge creation (Nonaka & Takeuchi, 1995), continuous improvement (Deming, 1986), challenging groupthink (Brookfield, 1987), rebellion (Wenger, 1998), workplace democracy (Brookfield, 1987), and double-loop learning (Argyris & Schön, 1996) all indicate different dimensions of critical reflection in the workplace in terms of Mezirow's (1990) distinction between reflection, critical reflection, and critical self-reflection. Reflection is aimed at solving the problems one encounters in one's job or is aimed at making tacit knowledge explicit. Critical reflection focuses on analyzing and trying to change the values of the organization. Critical self-reflection is aimed at the emancipation of the individual in relation to the organization. These dimensions cannot be seen as separate dichotomies; they are interrelated, and all touch on each other. Instrumental reflection may lead to critical reflection, and critical reflection on organizational values may lead to critical reflection on the self. One dimension, thus, cannot be seen as more important than another.

### **Reflection at the Workplace**

The relevance of the instrumental function of reflection in relation to problem solving hardly needs explanation; reflection is important in examining one's experience to assess its effectiveness and to improve performance. A very influential theory developed by an adult educator on reflection in the workplace in the instrumental problem-solving domain is Schön's theory (1983) on reflection-in-action and reflection-on-action. Schön researched how professionals think and described how thinking by problem solving and reflection develops in practice. He distinguishes different moments when reflection takes place. Knowing in action refers to the knowledge, which is mostly tacit, that reveals itself from our actions. After learning something, people are generally able to carry out the required tasks without thinking; knowing in action is sufficient. Sometimes, however, something unexpected will happen. We can react to these unexpected events by neglecting them (not learning) or reflecting on them. This may happen afterwards, by thinking back on what we have done. We then experiment in our mind by formulating new hypotheses. Reflection can also take place in action (thinking about what you are doing while you are doing it) when there are still opportunities to experiment with alternative approaches. When someone reflects in action, he or she becomes a researcher in the practical context. He or she is not dependent on the categories of established theory and technique but constructs a new theory of the unique case. Reflection can make implicit knowledge explicit and criticized and make room for new insights (reframing).

Reflection as individual behavior is often less effective than reflection in a social interaction. In the concept of "externalization," Nonaka and Takeuchi (1995) place reflection in a process of social interaction between individuals devoted to the development of new explicit knowledge out of tacit knowledge. Externalization takes place when people attempt to conceptualize an image, expressing its essence in language. These expressions, however, are often inadequate, inconsistent, and insufficient. A process of collective reflection and interaction between individuals, driven by metaphors and analogies when an adequate expression for an image by analytical methods of deduction and induction cannot be found, results in a creative process leading to the new explicit knowledge. Another well-known example of collective reflection aimed at problem solving, by focusing on procedures and methods, is continuous improvement or quality management. The "plan-do-check-act circle" that Deming (1986) introduced in order to reach continuous improvement resembles a reflection cycle.

### Critical Reflection at the Workplace

Critical reflection on organizational values concerns conventional notions about work that are taken for granted, such as its relationship to progress and development, the usefulness of the goods being produced, the treatment of employees, and the use (and abuse) of the natural environment and resources (Garrick, 1998). This dimension is related to critical self-reflection because it underpins employees' ongoing adaptation to the community of practice (Wenger, 1998) and the tensions between "learning for work" and "work for learning" (Garrick, 1998). Although people often have a romantic view of communities of practice as learning communities and the loci of creative achievement, Wenger (1998) stressed that they can also reproduce counterproductive patterns, injustices, and prejudices and can be centers of inbred failures, resistance to oppression, and reproduction of its conditions. Communities of practice are also the seat of espoused theories, general norms about what works that everybody agrees on (Schön, 1983). Espoused theories stand in contrast to theories-in-use, which refer to personal ideas based on intuition that professionals have about effective work strategies in relation to specific contexts and a readiness to change a given strategy if the circumstances change. Reflecting on espoused theory demands deeper and more critical reflection on values. Many people will keep theories-in-use private because they contradict revered espoused theories. Even if espoused theories do not work, people will be afraid to criticize them, for fear of appearing incompetent or being expelled from their professional group (Schön, 1983). Because most people avoid the problems and uncertainty of conflicts that innovative learning processes entail (Swieringa & Wierdsma, 1990), learning processes tend to be conservative and confirm existing frames of reference (Weggeman, 1997). Thus, just as the process of critical reflection can be made possible through the assistance of others, because their feedback opens the learner up to other points of view (Marsick & Watkins, 1990), it also involves the ability to withstand social pressure. People who dare to criticize espoused theories are perceived as saying "the emperor is wearing no clothes" or as "troublemakers," as the participants in one telecommunications company expressed it (Brooks, 1999). Although criticizing was not regarded as bad, it was also often brushed aside, leaving the critically reflective worker isolated. Brookfield (1987) referred to this as challenging groupthink—a critical attitude toward the ideas that a group of people consider sacrosanct. Wenger (1998) referred to this as rebellion, which often reveals a greater commitment than passive conformity.

In contrast to these conflict models of critical reflection, a well-known theory about critical reflection on organizational values in a more harmonious model aimed at organizational learning is that developed by Argyris and Schön (1996). Argyris and Schön distinguish between the concepts of *single-* and *double-loop learning*, which are used to characterize both indi-

vidual learning and learning from organizations. Single-loop learning refers to instrumental learning that changes strategies of action or the assumptions underlying strategies in ways that leave the values of a theory of action unchanged. A single feedback loop connects the detected error to strategies of action and their underlying assumptions. Double-loop learning is closely related to critical reflection. Double-loop learning refers to learning that results in a change in the values of theories-in-use as well as in its strategies and actions. It enables workers to identify, question, and change the assumptions underlying workplace organization and patterns of interaction. Workers publicly challenge workplace assumptions and learn to change underlying values. By confronting the basic assumptions behind prevailing organizational norms, values, myths, hierarchies, and expectations, workers help prevent stagnation and dysfunctional habits. According to Argyris and Schön, organizational learning occurs when individuals within an organization experience a problematic situation and inquire into it on the organization's behalf. The pity, however, is that this harmonious model does not exist in practice, as appears from the statement that "we are unlikely to find the new learning system by looking at the world as it presently exists" (Argyris & Schön, 1996, p. 111). Double-loop learning is often prevented because when people feel threatened, they reason and behave in accordance with a theory of action called *Model I theories-in-use*, thus enhancing conditions for error. Important features of issues become undiscussable and their "undiscussability" itself becomes undiscussable. People who operate by Model I define the purpose of the situation in their own terms instead of developing a mutual definition of purposes with others. They want to maximize winning and minimize losing; once they have decided their goals, changing them would be a sign of weakness. They avoid eliciting negative feelings because this would show ineptness, incompetence, or a lack of diplomacy. Finally, they always try to appear rational; their interactions should be construed as objective discussions of the issues, whatever feelings may underlie them. Because double-loop learning depends on the exchange of valid information and public testing of attributions and assumptions, Model I behavior tends to discourage this. The actors do not invite confrontation with the inconsistencies within their theories or the incongruities between what they espouse and what they actually use. To do so would make it possible for someone to gain control or win and negative feelings to be aroused—all violations of the governing variables.

### **Critical Self-Reflection at the Workplace**

Whereas Argyris and Schön's (1996) theory is clearly devoted to promoting the organizational goal of organizational learning, in critical self-reflection, the interests of the individual are central. Critical self-reflection



in the context of the workplace means asking fundamental questions about one's own identity as a member of the community of practice and the need for self-change (Marsick, 1988), both queries being aimed at self-realization and development. This does not mean that the organization does not benefit from critical self-reflection. Both organizations and the individuals working in them benefit from employees who reflect on themselves and ask themselves if they really want to follow the changes in their job, or if they would not prefer to look for another job. Work organizations have changed; instead of the almost mindless repetition of proven formulae, today's workers at all levels are called on to think differently and more deeply about themselves, their work, and their relationship to the organization (Marsick, 1988).

Because learning transforms who we are and what we can do, it is an experience of identity. It is not just an accumulation of skills but also a process of becoming—becoming a certain person or, conversely, avoiding that one becomes a certain person (Wenger, 1998). In addition to encompassing a process of transforming knowledge, it thus also entails a context in which to define an identity of participation. Wenger (1998) stressed that communities of practice are not intrinsically benevolent for the individual; they are the cradle of the self but also the potential cage of the soul. The authority of the individual is mediated by the community of practice in which its meaning is to be negotiated in practice. Critical self-reflection refers to learning to participate critically in the communities and social practices of which a person is a member, and creating an identity in relation to this specific social practice (Ten Dam & Volman, 2002). The instrumental approach to learning by reflection cannot be separated from critical self-reflection because job-related knowledge and skills cannot be separated from the rest of the worker's life (Marsick, 1988). In learning to be effective, one must consider two deeper levels in which job skills are embedded: the social unit that shapes the individual's reactions at work—that is, the organization and the immediate workgroup—and the individual's perception of self with regard to the job and the organization. Through critical self-reflection, people can better see the manner in which task-related learning is often embedded in norms that also have an impact on their personal identity.

### **Making Critically Reflective Work Behavior Operational**

Because the concept of critical reflection has been developed within the context of theory or practice, rather than research, it has not been developed operationally, and few instruments exist to identify individuals capable of critical reflection at work (Brooks, 1999). Furthermore, existing definitions of critical reflection often seem to characterize a process, instead of visible



behavior, and many definitions are focused more on learning or thinking than on working in an organization. In addition, reflection is often approached in phase models, but these approaches are too linear and too rational in comparison to reality. Many of these models focus on individual reflection, although social interaction is an important source of reflection.

### **Defining and Measuring Critically Reflective Work Behavior**

A research project into critical reflection at work (Van Woerkom, 2003) was aimed at making critically reflective work behavior operational by analyzing interviews with managers and workers from seven service and industrial organizations for identifiable, concrete, and practical examples of the different dimensions of critical reflection as were discussed in the previous sections. The operationalization of critically reflective work behavior was not only aimed at the cognitive process of reflection but also at the accompanying “action” in work processes because there has to be a balance between action and reflection. Focusing too much on a state of mind may even hinder learning (Kuhl, 1983). Based on the results, critically reflective work behavior was defined as a set of connected activities carried out individually or in interaction with others, aimed at optimizing individual or collective practices, or critically analyzing and trying to change organizational or individual values; it was subsequently operationalized in the seven dimensions of reflection, experimentation, learning from mistakes, career awareness, critical opinion sharing, asking for feedback, and challenging groupthink. These dimensions were later also validated in a self-report instrument tested on 742 respondents working in various sectors (Van Woerkom, 2003).

### **Assessing Causes and Effects of Critically Reflective Work Behavior**

Subsequent phases in the research project into critical reflection at work (Van Woerkom, 2003) showed a quite stable interaction pattern between three core variables—namely, self-efficacy, participation, and critically reflective work behavior. The effect of self-efficacy can be explained by the fact that all of the dimensions of critically reflective work behavior imply a certain form of risk-taking behavior and competence. One has to have the courage to withstand social pressure and be critical, to adopt a vulnerable position, ask for feedback, take a close look at one’s performance and one’s future career, and to experiment, instead of following the beaten path. People who feel confident of their competencies will sooner be prepared to take such “risks.” Likewise, people who take the risk of displaying critically

reflective work behavior have steeper learning curves, and this will have a positive effect on their self-efficacy.

The effect of participation can be explained by pointing out that critically reflective work behavior requires involvement in the organization, knowledge of how the organization works at each level, and the scope to solve problems and learn from mistakes. Workers who did not feel (sincerely) invited to participate were found to withdraw from the organization and concentrate on their direct task execution. On the other hand, people were also found to create their work environment by their behavior; it was also found that people who displayed critically reflective work behavior were more often invited to participate.

Next, the effects of critically reflective work behavior were investigated in a textile-printing factory and a forensic psychiatric clinic based on interviews with managers and employees (Van Woerkom, 2003). In both organizations, critically reflective work behavior was perceived to have a positive effect on the development of the organization and of individuals. Reflecting, career awareness, experimenting, learning from mistakes, critical opinion sharing, inviting others for feedback, and challenging groupthink enabled workers not only to develop their own competences and to connect their working life to their personal development, but it also enabled them to optimize or to critically analyze and try to change work practices. In the textile factory, critically reflective work behavior was perceived as especially valuable for making the shift from Taylorism to a modern organization, with participating and self-managing workers. This required employees to reflect on their own current and future position in the organization and to reflect on their own behavior, instead of blaming others for mistakes. In the forensic psychiatric clinic, critically reflective work behavior was perceived as valuable for the development of those forms of treatment that would prevent criminal offenses in the future. This required employees to break out of the legalistic climate, dominated by rules and safety, and to contribute to innovations in the treatment. In both organizations, however, it was found that, for many dimensions of critically reflective work behavior, there needed to be a balance, for example, between experimentation and standardization in the factory and between reflection and action in the clinic. It is acknowledged that there is also a need for "followers" and "workers" who focus more on their daily work and less on development. There should also be a balance between critical opinion sharing, self-reflection, and asking for feedback. Sometimes balance within the individual is more important: for example, the balance between reflection and action for social therapists in the forensic psychiatric clinic. Sometimes balance within a team is more important, for example, the R&D project worker in the textile-printing factory who stated that he was not an experimenter in order to counterbalance his colleagues.

### Implications for HRD Research and Practice

What has the concept of critical reflection contributed to our understanding of HRD research? In the first place, this concept has made us aware that HRD research is often approached from the paradigm of adaptive learning. In HRD, the organizational perspective is predominant. Organizations aim at certain outcomes and, in their view, human beings are human resources (Sambrook, 2003). To achieve the outcomes as defined by the organization, work-related learning is, therefore, often perceived as adaptive learning, involving processes in which individuals acquire knowledge, solve problems, or learn to act in a situation in which tasks, goals, and other conditions are given (Ellström, 2002). This is certainly the case in an HRD performance paradigm (Holton, 2000) in which performance is evaluated with prescribed standards. Adaptive learning is necessary for developing routine, expertise, and efficiency and not to continuously trigger our understanding of the world completely anew. However, a one-sided emphasis on adaptive learning entails the risk of “corrosion of character” (Sennett, 1998) in the sense that people will no longer know what they are good at or what is important to them and will miss the necessary pride that they derive from the content of their job, which is necessary for effective performance. Ellström (2002) introduced two different logics of activity and learning: (a) the logic of production and (b) the logic of development. In the logic of production, learning is valued insofar as it is instrumental to supporting and promoting efficient action. In the logic of development, learning is valued for its contribution to flexibility, discovery, and innovation. Adaptive learning and critical reflection build on each other. Adaptive learning is necessary for critical reflection because it stimulates a realistically perceived self-efficacy, which in turn has a major effect on critically reflective work behavior (Van Woerkom, 2003). In that perspective, Holton (2000) is right when he states that to the extent that HRD helps people to be more successful in their jobs, performance-oriented HRD is just as valuable to the individual as the organization. However, when it comes to the development or innovation of existing work practices, this performance orientation and focus on adaptive learning, aimed at “how to” questions about efficiency and effectiveness, is not sufficient. For effective learning that goes beyond the reproduction of existing practices, whether in a formal or informal setting or at an organizational or individual level, learning must not only deal with “how to” questions but also with “why” questions about individual and organizational values. With regard to the debate in HRD theory on learning versus performance, one could conclude that critical reflection does not by definition contradict a performance paradigm (Holton, 2000). This is apparent from the definitions of “a good employee” that managers have given in that critical reflection may itself be seen as performance (Van Woerkom, 2003). They mentioned the importance of thinking critically about the whys and

wherefores, by asking questions like “Why are things organized like this? Can the work be done more efficiently?” and “Why do I work like this?” What is essential is how performance is defined and whether this definition also includes long-term performance. Because change in today’s fast-moving and chaotic work environment is not a linear process and the organizational future may not be predictable (Muller & Watts, 1993), the definition of performance should be broadened from just current performance to the capacity to deal with an unknown future (Kuchinke, 1998). A short-term focus on performance means focusing on adaptive learning, whereas a long-term focus on performance demands a combination of adaptive learning and critical reflective learning. Furthermore, a definition of organizational performance in purely economical terms is not effective in the long run, because socially acceptable entrepreneurship and a good reputation have become important conditions for continuity for many companies (Wijffels, 2000). What is also crucial in the definition of performance is whether individual motivations for and perspectives on performance are taken into account.

With regard to implications for HRD practice, one could conclude that HRD should not only play a role in the adaptive learning of competence in relation to given tasks, goals, and conditions but also in supporting people in critically reflective work behavior, by paying attention to their self-efficacy, inviting them to participate in the organization, and analyzing why they do or do not behave in a critically reflective manner. The answer to the question of why people exhibit critically reflective work behavior is more important than the question of whether people exhibit this behavior. There may be valid reasons for people to withdraw from the organization and not behave in a critically reflective fashion. However, withdrawal is an undesirable outcome from the perspective of organizational learning, as it prevents access to information that those employees possess. This leads to focused learning, which the result of a limited selection and interpretation of information is caused by, among other things, the power of referential groups and self-referential use of information (Huysman, 1996). To stimulate employees that have withdrawn to (again) feel part of the organization, it is important to find out what organizational variables may have caused them to withdraw, to make mutual expectations explicit, and to keep in close contact about this. What does the organization want from the employee and vice versa? Is personal development linked to organizational development and vice versa? The balance between adaptive learning and critically reflective learning should not only be considered within individuals but also between individuals. This also relates to the distinction between narrow learners and broad learners that was observed in the forensic psychiatric clinic (Van Woerkom, 2003). The “narrow learners” focus on challenges in the details of their everyday task performance and seem to fit into the logic of production. The

“broad learners” focus on the meaning of their work in a broader context and seem to fit into the logic of development. Both types of learners are valuable to the organization. HRD practice should stimulate the contact between both types of learners, enabling them to exchange their narrow and broad knowledge. In general, it can be concluded that critical reflection is important to HRD practice because job-related knowledge and skills cannot be separated from the rest of the worker’s life in which job skills are embedded (Marsick, 1988). As Kessels (2002) correctly put it, you cannot make people smart against their will. Therefore, HRD should build on employees’ insights and energies, providing support, assistance, and strategic direction (Kuchinke, 1998).

## References

- Argyris, C., & Schön, D. A. (1996). *Organizational learning II: Theory, method and practice*. Reading, MA: Addison-Wesley.
- Bolhuis, S. (1995). *Leren en veranderen bij volwassenen, een nieuwe benadering* [Learning and change in adults. A new approach]. Bussum, the Netherlands: Coutinho.
- Brookfield, S. D. (1987). *Developing critical thinkers*. San Francisco: Jossey-Bass.
- Brooks, A. K. (1999). Critical reflection as a response to organizational disruption. *Advances in Developing Human Resources*, 3, 67-97.
- Calderhead, J. (1989). Reflective teaching and teacher education. *Teaching and Teacher Education*, 5(1), 43-51.
- Carr, W., & Kemmis, S. (1986). *Becoming critical: Education, knowledge and action research*. London: Falmer.
- Deming, W. E. (1986). *Out of the crisis: Quality, productivity and competitive position*. Cambridge, UK: Cambridge University Press.
- Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. Boston: Heath & Co.
- Dewey, J. (1938). *Logic: The theory of inquiry*. Troy, MO: Holt, Rinehart & Winston.
- Ellström, P. E. (2002). Time and logics of learning. *Lifelong Learning in Europe*, 2, 86-93.
- Freire, P. (1970). *Pedagogy of the oppressed*. New York: Herter and Herter.
- Garrick, J. (1998). *Informal learning in the workplace. Unmasking human resource development*. London: Routledge.
- Gilley, J. W., & Maycunich, A. (2000). *Organizational learning, performance, and change: An introduction to strategic human resource development*. Cambridge, MA: Perseus.
- Holton, E. F. (2000). Clarifying and defining the performance paradigm of human resource development. In K. P. Kuchinke (Ed.), *AHRD Conference Proceedings* (pp. 2-3). Raleigh-Durham, NC: Academy of Human Resources Development.
- Huysman, M. H. (1996). *Dynamics of organizational learning*. Unpublished doctoral dissertation, Free University, Amsterdam.

- Jarvis, P. (1987). *Adult learning in the social context*. New York: Croom Helm.
- Kessels, J. W. M. (2002). You cannot be smart against your will. In B. Garvey & B. Williamson (Eds.), *Beyond knowledge management. Dialogue, creativity and the corporate curriculum* (pp. 47-52). Harlow, UK: Financial Times-Prentice Hall.
- King, P., & Kitchener, K. (1994). *Developing reflective judgment*. San Francisco: Jossey-Bass.
- Kolb, D. A. (1984). *Experiential learning*. Englewood Cliffs, NJ: Prentice Hall.
- Kuchinke, K. P. (1998). Moving beyond the dualism of performance versus learning: A response to Barrie and Pace. *Human Resource Development Quarterly*, 2, 377-384.
- Kuhl, J. (1983). *Motivation, Konflikt und Handlungskontrolle* [Motivation, conflict and action control]. Berlin, Germany: Springer.
- Marsick, V. J. (1988). Learning in the workplace: The case for reflectivity and critical reflectivity. *Adult Education Quarterly*, 38(4), 187-198.
- Marsick, V. J., & Watkins, K. E. (1990). *Informal and incidental learning in the workplace*. London: Routledge.
- Mezirow, J., Brookfield, S., Candy, P. C., Deshler, D., Dominicé, P. F., Gould, R. L., et al. (1990). *Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning*. San Francisco: Jossey-Bass.
- Muller, J., & Watts, D. (1993). Modeling and muddling: The long route to new organizations. *European Management Journal*, 11(3), 361-366.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge creating company. How Japanese companies create the dynamics of innovation*. New York: Oxford University Press.
- Raelin, J. A. (2000). *Work-based learning. The new frontier of management development*. Upper Saddle River, NJ: Prentice Hall.
- Sambrook, S. (2003). A "critical" time for HRD? *Proceedings of the Fourth Conference on HRD Research and Practice Across Europe* [CD-ROM]. Toulouse, France: Groupe ESC Toulouse.
- Schön, D. A. (1983). *The reflective practitioner*. New York: Basic Books.
- Sennett, R. (1998). *The corrosion of character: Personal consequences of work in the new capitalism*. New York: Norton.
- Swieringa, J., & Wierdsma, A. F. M. (1990). *Op weg naar een lerende organisatie* [Heading for a learning organization]. Groningen, the Netherlands: Wolters-Noordhof.
- Ten Dam, G., & Volman, M. (2002). Het sociale karakter van kritisch denken: Didactische richtlijnen [The social character of critical thinking: Didactical guidelines]. *Pedagogische Studiën*, 79(3), 167-183.
- van Bolhuis-Poortvliet, G. A., & Snoek, J. P. A. (1996). *Reflecteren op stage-ervaringen* [Reflecting on apprenticeship experiences]. Unpublished doctoral dissertation, Rijksuniversiteit Groningen, the Netherlands.
- van Woerkom, M. (2003). *Critical reflection at work. Bridging individual and organizational learning*. Unpublished doctoral dissertation, University of Twente, Enschede, the Netherlands.
- Weggeman, M. (1997). *Kennismanagement. Inrichting en besturing van kennis intensieve organisaties* [Knowledge management. Design and management of knowledge-intensive organizations]. Schiedam, the Netherlands: Scriptum.

Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. Cambridge, UK: Cambridge University Press.

Wijffels, H. H. F. (2000, September). *Veranderende maatschappij, veranderende universiteit* [Changing society, changing university]. Presentation at the opening of the academic year at Wageningen University, Wageningen, the Netherlands.

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van Woerkom, M. (2004). The concept of critical reflection and its implications for human resource development. *Advances in Developing Human Resources*, 6(2), 178-192.