
Training the Trainee as Well as the Trainer: Lessons to be Learned From Clinical Psychology*

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Abstract

The training literature in I/O psychology has benefited from empirical research in experimental psychology on such subject matter as massed vs distributive practice, knowledge of results (KOR), and the transfer of learning from the training setting to the workplace. The purpose of the present paper is to argue that further advances in the field of training will occur when there is a shift in research emphasis from reliance on findings from experimental psychology to building on extant training techniques in clinical psychology, particularly cognitive behavioural psychology. Further advances in the field of training may also occur when there is a shift in emphasis from the recipient of training, namely, the trainee, to the administrator of training, namely the trainer.

A major subdiscipline within the field of I/O psychology is training. In the first half of the 20th century, the training literature benefited from empirical research conducted by experimental psychologists to maximize the trainee's learning. Such issues as massed versus distributive practice sessions (Hull, 1943), whole versus part training (Naylor & Briggs, 1963), knowledge of results (KOR) (Ammons, 1956), and transfer of learning (Ellis, 1965) benefited from the early studies in experimental psychology. Subsequent refinements of that work by I/O psychologists enabled them to quickly shift their focus to organizational factors affecting training and development, ways of identifying training needs, the development of on-site and off-site training methods, as well as ways of motivating employees to apply what they learned in training sessions to the workplace (Wexley & Latham, 2001).

Near the middle of the 20th century, Thorne

(1945), a major contributor to the early development of clinical psychology argued that: "Times are ripe for ... all the psychological sciences to cooperate harmoniously" (Routh, 2000, p. 1). However, the subsequent rapid accumulation of knowledge within disciplines of psychology has been accompanied by the formation of Divisions or Sections in scholarly societies such as the American (n = 53) and Canadian Psychological Associations (n = 27) to communicate this knowledge within the respective disciplines. This has facilitated ignorance among the various disciplines of their respective theories, methodologies, and empirical research on their ability to predict, explain, and influence behaviour.

The purpose of the present paper is three-fold. First, we discuss preliminary evidence that suggests that the field of training in I/O psychology can benefit from adapting methodology in clinical psychology, specifically cognitive behavioural psychology, to increasing the knowledge, skills and abilities (KSAs) of trainees in organizational settings. These training techniques include behaviour modeling, self-regulation, functional self-talk, and visualization or mental imagery. Second, based on the successful use of these methodologies, we suggest additional training techniques in clinical psychology that might benefit the trainee. Finally, we argue that a problem in the field of training in I/O psychology is the sole emphasis on ways of increasing the KSAs of trainees. Ways of increasing the KSAs of the trainer have been largely ignored.

Just as benchmarking is a method commonly employed in industry to minimize "re-inventing the wheel," I/O psychology should benefit from benchmarking against clinical psychology as it is the one discipline within psychology that has developed techniques for increasing the KSAs of the clinician. Thus the present paper discusses potential implications of Bordin's (1994) working alliance and Bowlby's (1969, 1979) attachment theory for improving the effectiveness of the trainer, mentor, or coach.

Clinical Psychology Theory and Research

Despite the fact that both I/O and clinical psychology (Rourke, 1995) explicitly advocate a scientist-practitioner model, the two divisions of psychology have largely ignored one another. It is rare to see theory or

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empirical research of clinical psychologists cited in the I/O literature. An exception is Maslow's (1954) theory of need hierarchy. However, Maslow's theory was abandoned for lack of empirical support (e.g., Wahba & Bridwell, 1976). Cognitive behaviour theories in clinical psychology, however, may have an enduring effect on the training research of I/O psychologists.

Cognitive behavior theory. Cognitive behaviour theories are arguably the dominant paradigm in clinical psychology (Dobson & Khatri, 2000) because they appear to provide the most effective framework for dealing with behavioural issues (Keijsers, Schaap, & Hoogduin, 2000). Though not a clinical psychologist, Bandura's (1977a, 1977b) social learning theory, later re-labeled by him as social cognitive theory (Bandura, 1986, 1997) has influenced both clinical (e.g., Sylvain, Ladouceur, & Boisvert, 1997) and I/O psychology (Stajkovic & Luthans, 1998). In brief, this theory emphasizes triadic reciprocal determinism among the person, the environment, and behaviour. The immediate determinant of behaviour is goal setting (Bandura, 1977a). This theory is thus simpatico with goal-setting theory (Locke & Latham, 1990; 2002), which is among the most scientifically robust and practical theories in I/O psychology (Miner, 1984; Pinder, 1998). Goal setting is a core variable in the motivation of trainees (Brown & Latham, 2002; Wexley & Latham, 2001). Among the cognitive behavioural theories in clinical psychology, social cognitive theory is arguably among the most effective in that, as Bandura (1986, 1997) showed, it has predictive, change, and explanatory efficacy.

Two key variables that social cognitive theory shows are necessary for facilitating goal commitment are (a) outcome expectancies, namely, the necessity of the trainer helping trainees see the relationship between what they learn in training and the outcomes that they can expect as a result of exhibiting the behaviour on the job; and (b) self-efficacy, namely, the necessity of a trainer instilling in trainees the belief that they can perform the behaviour necessary to attain their goal(s). Among the ways that self-efficacy can be increased are enactive mastery, modeling, and persuasion from a significant other, including and particularly oneself. Enactive mastery requires the trainer to sequence material, tasks, or assignments in ways that facilitate early successes on the part of the trainee. The principle of modeling requires a trainer to find a model with whom the trainee can identify and who has either mastered the task or is in the process of doing so. Visualization is another form of modeling that is done vicariously. Similarly, trainers can find a

trainee's significant other, a person who can persuade the trainee of the likelihood that the requisite behaviour(s) can be acquired, and to work with the trainee to minimize dysfunctional and increase functional self-talk.

Clinical Methods Applied

Behaviour modeling. The publication of Bandura's theory led to a plethora of empirical studies of the effects of behavioural modeling as a training technique in I/O psychology for bringing about a relatively permanent change in an employee's behaviour. For example, Latham and Saari (1979) conducted a training program to improve supervisors' interpersonal skills in dealing with employees. The trainees were shown a film once a week for nine weeks. Each film showed a supervisor behaving appropriately as defined by learning points derived from a job analysis. The subject matter included orientation of a new hire, overcoming resistance to change, dealing with complaints, taking disciplinary action, etc. The trainees then engaged in role plays in order to practice the behaviours that were modeled in the film.

The trainee's reactions to the training program were highly favourable, and these favourable reactions were maintained over time. Moreover, the performance of the trainees was significantly better than that of the supervisors in the control group on a behavioural simulation three months after training, a learning test administered six months after training, and on evaluations of their performance by their managers one year after training. After the supervisors in the control group also received the training, they too made significant improvements in their supervisory skills, and did not differ significantly from the trainees who had originally undergone the training on any of the evaluation measures.

Self-management. F. Kanfer (1970, 1980) developed a cognitive behavioural training program to teach clients to assess the challenges they face through setting specific challenging goals, monitoring progress toward goal attainment, and self-administering rewards and punishments regarding goal progress. The acquisition of these skills to manage self is of practical importance to organizations as layers of management have been removed in order to reduce costs and meet budgets, as well as to increase employee involvement in the workplace. Employee attendance is usually a necessary condition for job performance. As (1962) argued that absenteeism is a social fact in need of a theory. Twenty years later, Johns and Nicholson (1982) found that despite a heavy investment of research effort, no major breakthrough in the predic-

tion, understanding, and control of absenteeism had occurred.

Drawing upon social cognitive theory and Kanfer's (1970, 1980) methodology, Frayne and Latham (1987) developed a training program to increase attendance in the workplace of unionized state government employees. In brief, the training taught people to set specific high goals in relation to their job attendance, monitor ways in which the environment facilitated or hindered goal attainment, and to identify and administer rewards for working toward, and punishments for failing to work toward goal attainment. This training in self-regulatory skills not only taught employees how to manage personal and social obstacles to job attendance, it raised their perceived self-efficacy that they could exercise influence over their behaviour. Consequently, employee attendance was significantly higher in the training than in the control group. The higher the perceived self-efficacy, the higher the subsequent job attendance.

With few exceptions (e.g., Saari & Latham, 1982), the long-term effectiveness of behavioural science interventions in I/O psychology is not measured. Consequently, Latham and Frayne (1989) conducted a follow-up study. They found that the enhancement in self-efficacy and the increase in job attendance were effectively maintained over a nine-month period. Perceived self-efficacy at the end of training in self-management predicted subsequent job attendance.

A person in human resources was trained by Frayne to provide the same training to participants in the control group. Three months later, the control group showed the same positive improvement as the original training group with regard to an increase in self-efficacy and job attendance. These findings provide support for a self-efficacy based theory of job attendance.

Functional self-talk. Meichenbaum (1971, 1977) argued that because self-talk or verbal self-guidance occurs on a continuous basis, it is basic to self-control and behaviour regulation. Meichenbaum (1971, 1977) thus developed a technique for teaching people to become aware of their internal dialogue and its effect on their affect and behaviour. Specifically, individuals are taught to replace negative self-statements with positive or functional ones. In the first step, a situational analysis of the occasions on which failures are experienced and dysfunctional self-talk ensues is conducted by the trainer together with the client. In the second step, this is done by the client alone. Internal dialogue is monitored by the client. In this way, clients gain an awareness of their cognitions and dialogue that affect their behaviour. By monitoring their own self-talk, clients gather evidence that enable them to

interpret situations functionally. Two meta-analyses, one based on adults (Dush, Hirt, & Schoreder, 1983) and a second based on the treatment of children (Dush, Hirt, & Schroeder, 1989) provide support for the effectiveness of this training.

Using Bandura's social cognitive theory as a framework, and Meichenbaum's (1971, 1977) methodology, Millman and Latham (2001) used a quasi-experimental design to evaluate the effect of training in functional self-talk on subsequent re-employment. In brief, participants recorded their negative self-statements (e.g., "I feel my age is against me") and job search activities, before re-evaluating their negative self-talk and generating positive self-statements (e.g., "Plenty of people my age get good jobs"). Cognitive modeling was also used to demonstrate the process of moving from negative self-statements, to a neutral position, and then to positive verbal self-guidance. Managers who received seven 7-hour training sessions achieved a significantly higher rate of re-employment than did people in the control group. The training in verbal self-guidance increased trainees' self-efficacy so that they could overcome obstacles to finding a job opening and performing well in the selection interview.

Because of the importance recruiters place on team-playing skills of MBAs, a job analysis was conducted by Brown and Latham (2000) to define team-playing behaviour in study groups in an MBA program. Those students who were trained in functional self-talk to exhibit those behaviours had higher self-efficacy and were evaluated anonymously by their peers as better teamplayers than were those students in the control group.

Mental practice. Social cognitive theory (Bandura, 1986) defines mental practice as symbolic-guided rehearsal of a task. It can benefit performance by a) creating an appropriate cognitive set for an activity, b) diverting attention from stressful thoughts to helpful ones, and c) increasing self-efficacy. A meta-analysis of 35 studies by Driskell, Copper, and Moran (1994) found that the more a task requires mental operations (e.g., generating hypotheses; comparing, organizing, or categorizing information), the greater the benefit of mental practice on subsequent performance. Richardson (1994) outlined ways mental practice can be taught with a guided script that specifies: a) the skills one wants to acquire, b) step-by-step procedures for doing so, c) instructions for people to visualize themselves implementing the script, and d) ways to visualize oneself performing the task.

Using this methodology, together with either implicit or explicit goal setting, Morin and Latham (2000) investigated the efficacy of mental practice as a

post-training intervention with regard to self-efficacy and the transfer of training of newly taught communication skills for supervisors and process engineers in a pulp mill. In brief, the mental practice training consisted of listening to an audiotope that taught people to vividly visualize themselves engaging in specific interpersonal communication behaviours with union officials.

Six months later, self-efficacy was significantly higher for those who had received training in either mental practice, or in mental practice with goal setting, than for those in the goal setting only or control conditions. Self-efficacy correlated significantly with goal commitment and communication skills on the job. Imagery skill moderated the effect of mental practice on self-efficacy. Only the supervisors in either the mental practice condition or in the goal setting/mental practice condition were observed by their peers to have improved their communication skills on the job.

In summary, cognitive behavioural training techniques developed by clinicians have provided frameworks for the empirical research of I/O psychologists. However, there is a paucity of studies in the I/O literature based on these frameworks. Hence replication is needed. Specifically, future research is needed to identify individual and situational factors that moderate their effectiveness. This is especially important for the application of Meichenbaum's (1971, 1977) functional self-talk methodology, as well as Richardson's (1994) mental practical procedures as only preliminary studies have been conducted in the context of training employees in organizational settings.

Learning requires trainees to focus their attention on ways to master training content (Kanfer & Ackerman, 1989). Performance during training is generally diminished when people become distracted by dysfunctional self-focused emotions and cognitions such as self-presentation concerns (Kluger & DeNisi, 1996). Thus, a hypothesis to be tested is that the cognitive behavioural training techniques described above may facilitate learning by helping trainees to focus their attention on the acquisition of the requisite knowledge and skills, thereby increasing their self-efficacy to exhibit the behaviour on the job. The next section of this paper examines two additional methodologies in clinical psychology that may facilitate the transfer of training to organizational settings for similar reasons. Specifically, training techniques developed by Ellis and Seligman are reviewed. These methods are examined because of their implications for predicting, influencing, and explaining goal choice, goal strategy, as well as the trainee's effort and persistence in the face of obstacles to goal attainment.

Rational emotive theory. Ellis (1958, 1999) argued

that the source of many psychological problems, particularly anxiety, anger, helplessness, and procrastination, is irrational beliefs. Rational emotive therapy (RET) has been used by clinicians for training people in their personal lives to set realistic goals and outcome expectancies, using an ABC model where A represents the antecedent event or situation for beliefs (B) that generate emotional and behavioural consequences (C).

Irrational beliefs are those that are unfounded and dogmatic. They are frequently expressed in terms of absolutes that state what "always," "must," "needs to," "never," or has "got to" happen. This dysfunctional self-talk is inflexible, perfectionistic, and makes unrealistic demands and commands for success or approval of a) oneself, b) other people, and c) the world (Ellis, Gordon, Neenan, & Palmer 1997). When people who hold these beliefs do not attain the desired outcome that they expect, they tend to get frustrated, upset, and give up (Ellis & Harper, 1997). When the desire for certain outcomes is expressed as demands or commands to oneself, rather than leading people to increase their performance by making themselves more determined to succeed, it tends to make them vulnerable to distress and distraction when normal everyday setbacks occur (Ellis, 1999).

Rational beliefs tend to be moderate, flexible, and adaptable to life events. They emphasize acceptance of self and others as fallible and the world as not always fair or just (Ellis, 1958, 1999). Rational beliefs are expressed as preferences or desires for a particular outcome. An example of a response to failure, based upon a rational belief includes such functional self-talk as: "I really wanted to achieve this goal; I will find other ways to attain it." This behaviour enables people to redirect their cognitive and emotional energy toward developing new strategies for goal attainment (Ellis et al., 1997).

Implications for I/O psychology. The training of trainees in organizational settings could include techniques similar to those developed by Ellis. These include cognitive, emotive, imaginal, and behavioural methods.

Cognitive methods might involve teaching employees the principle of reframing statements. For example, when difficulties are encountered during training, an absolute, self-demanding statement such as: "I can't stand always being so stupid" can be reframed as: "It is normal to make mistakes when I am first learning to perform a task." Reframing self-deprecating statements in self-validating ways can have a positive effect on motivation, and can protect a person's self-efficacy (Bandura, 1997).

Emotive methods include self-disclosure, namely, asking a person to share with the trainer, or the trainees as a group, the worst thing they have done regarding the subject matter – the thing that frightens them most with regard to the training content (e.g., public speaking, computer mastery, distance learning). After the trainer establishes a nonjudgmental context among trainees, self-disclosure to others about such incidents can help to contradict a trainee's irrational beliefs about what others will think of him or her during the training program. It may enable trainees to experience enactive mastery from doing the things they originally feared (Ellis & Harper, 1997). Such training would appear to be particularly relevant to error management (Frese & Altman, 1989) and relapse prevention (Marx, 1982). For example, research suggests that self-disclosure can lead to universality of experience (e.g., “we have similar feelings”), corrective feedback through group discussion of the ABCs, and unexpected corrective responses through realization that the basis for the initial fear is no longer to be feared (Ellis et al., 1997).

Irrational beliefs may also interact adversely with the type of feedback provided to the employee by a supervisor (Kluger & DeNisi, 1996). Rational beliefs may mediate the effect on performance of feedback from mentors, coaches, and trainers as well as the supervisor. Training in ways to replace irrational with rational beliefs would also appear to be applicable to employees whose desire for perfectionism is preventing them from completing their training and job assignment in a timely fashion.

Imaginal methods require an employee to vividly imagine a dreaded event occurring, allowing oneself to actually feel anxious, and then identifying the irrational beliefs that created these disturbed feelings. The next step is to identify rational alternative beliefs, before vividly picturing these rational beliefs being manifested. This enables people to come to the realization that they can find ways to adapt and cope with the challenges they encounter (Ellis et al., 1997).

Behavioural methods recommended by Ellis include role-playing and progressive relaxation techniques. Role playing procedures are already well known to I/O psychologists. Use of progressive relaxation techniques as a way to reduce stress experienced by individuals in the workplace were used effectively by Bruning and Frew (1987) as well as Higgins (1986).

The viability of applying RET techniques beyond clinical settings was shown by Shannon and Allen (1998). They randomly assigned Grade 11 disadvantaged Black students to a) eight 1-hour training sessions on RET strategies for controlling emotions that interfered with their mastery of mathematics, or to b)

a placebo control condition. Students who received RET training overcame self-defeating beliefs regarding mathematics, and exhibited significantly greater pre- to post-test gains in their mathematical performance than did those in the control group.

Learned helplessness/learned optimism. Based on over 25 years of programmatic research in the laboratory with animals, and in the clinic with clients, Seligman (1968, 1998a, b) established a causal relationship between a person's pessimistic explanatory style and subsequent depression versus an optimistic explanatory style and a person's creativity, productivity, and overall sense of well-being. Drawing on attribution theory, Seligman and his colleagues (Peterson, Semmel, Van Baeyer, Abramson, Metalsky, & Seligman, 1982) developed the Attribution Style Questionnaire (ASQ) that assesses a person's explanatory style with regard to the locus, stability, and globality of attributions. *Locus* refers to the extent to which a noncontingency between one's actions and the consequences experienced is attributed primarily to either oneself or to factors in the environment. *Stability* is the extent to which lack of a response-outcome is temporary or is likely to persist into the future. Finally, *globality* refers to the extent to which noncontingent outcomes are perceived as either domain specific or likely to undermine many areas of one's life.

These attributions explain learned helplessness, an outcome expectancy that effort or performance is useless in relation to goal attainment. People who do not see the relationship between what they do and the outcome that occurs are susceptible to “giving up.” Learned helplessness results from setbacks being considered as long lasting (stable), as undermining the attainment of most, if not all, of one's goals (global), and caused by personal deficiencies (internal) rather than situational constraints. People who make these attributions see no contingent association between their actions and goal attainment; their low outcome expectancy causes deficits in future learning as well as motivational disturbances such as procrastination and depression (Seligman, 1998a). Thus even when the situation changes so that they can now exert control over their environment so as to make progress toward their goal, they do not try to do so because they have learned that “giving up” is a rational response. This is because their attribution leads to chronic helplessness (Seligman, 1998b). The habitual blaming of self undermines self-efficacy (Bandura, 1997).

Optimists attribute their failures to causes that are temporary rather than stable, specific to the attainment of a particular goal rather than all their goals, and see the problem as a result of the environment or

setting they are in, rather than being inherent in themselves. They consequently have high self-efficacy. Setbacks, obstacles, and a noncontingent environment are the challenges that provide excitement in their life (Seligman & Csikszentmihalyi, 2000). Thus optimists are resilient in the face of failure.

Seligman (1998b) found that optimism can be learned. Step 1 requires the clinician to help clients identify beliefs that clients may be unaware of as self-defeating. Step 2 involves gathering information to evaluate and dispute the accuracy and implications of these self-defeating beliefs that are triggered by environmental events. In the third step, maladaptive beliefs are replaced with constructive, accurate ones based on the data collected in the second step.

Techniques advocated by Seligman (1998b) for disputing one's dysfunctional beliefs include: a) examining the evidence of their validity; b) focusing on changeable, specific, and nonpersonal causes of the negative outcomes one experiences, rather than making attributions to permanent, pervasive, and personal causes; c) avoiding catastrophizing the implications of one's negative attributes; and d) distracting oneself from recurring self-defeating thoughts by thinking about and doing something else. Trainers have long recognized that people need to appreciate the benefits of cognitively and behaviourally enacting that which is being trained; Seligman's learned optimism theory provides new insights about how this appreciation may be taught.

Implications for I/O psychology. The ASQ may prove useful for identifying people in organizations who suffer from learned helplessness. Evidence suggesting the value of ASQ for I/O psychology has been provided by Seligman and Schulman (1986). They found that salespeople with an optimistic explanatory style sold 35% more insurance than did those whose explanatory style was pessimistic. Moreover, people with a pessimistic style were twice as likely to quit their job in the first year as were those with an optimistic style. Similarly, Schulman (1999) found that those who scored high on optimism outsold those who were scored as pessimists by 20-40% across a range of organizations (e.g., auto sales, telecommunications, real estate, and banking). Strutton and Lumpkin (1992) found that the mediator of the two attribution styles on employee performance is strategy. Salespeople who scored high on optimism used problem-solving techniques whereas those who scored high on pessimism focused on ways of seeking social support.

Seligman's training technique may provide a framework for mentors, coaches, and trainers to predict, understand, and influence a person or team who has

given up trying to attain their goals because of repeated failures. I/O psychologists need to examine the external validity of the technique using different populations and different dependent variables. Whereas Bandura's research has focused primarily on ways to increase self-efficacy, Seligman's research suggests specific ways that I/O psychologists can increase and strengthen an employee's outcome expectancies. However, the application of Seligman's work in organizational settings has been limited to people working in sales. No one as yet has demonstrated that the ASQ has general applications to the work force. Seligman's work suggests the need for this research. Moreover, interventions to increase a trainee's self-efficacy may benefit from integrating the techniques developed by Bandura, Meichenbaum, Ellis, and Seligman. A treatment package may prove more effective than a sole focus on one technique derived from one theory.

Training the Trainer

Hamel (2000) argued that the role of trainer, mentor or coach is crucial for organizational survival in a dynamic environment of hypercompetition. A coach is defined as an experienced person who serves as a mentor or guide for people junior in the organization who are not direct reports, and who are judged by organizational decision-makers to have leadership potential (Ellinger, Watkins, & Bostrom, 1999). Although there are a plethora of practitioner articles on ways to coach effectively, there is a paucity of empirical research (Douglas & Morley, 2001).

Research in clinical psychology focuses on ways to improve the performance of the client as I/O psychology research focuses on ways to enhance the performance of the employee. Unlike training research in I/O psychology, research in clinical psychology also focuses on ways to improve the performance of the clinician in working with the client. Despite evidence that a manager's supportiveness is positively related to trainees' motivation to engage in training (Clark, Dobbins, & Ladd, 1993; Facticeau et al., 1995) and subsequent learning outcomes (e.g., Birdi, Allan, & Warr, 1997), procedures for improving the relationship between the trainer and trainee have been all but ignored as a variable of importance in the I/O literature. The remainder of this paper focuses on research in clinical psychology that may prove valuable to the training of the trainer, mentor, or coach in organizational settings, specifically, the working alliance and attachment theory. Although neither is a cognitive behavioural theory, both have implications for the setting of and commitment to goals, and both can be studied by I/O psychologists within the frameworks of goal setting and social cognitive theories.

The working alliance (WA). An area in clinical psychology that provides the basis for testable hypotheses regarding the importance of the coach/mentor, trainer-trainee relationship is Bordin's (1979, 1994) working alliance concept. The WA is a product of a) the quality of the relationship between the client and therapist, the extent to which there is mutual understanding and agreement regarding b) the goal or goals of therapy, and c) the tasks to be pursued to attain the goal. This construct is considered crucial for establishing a positive therapeutic relationship as well as facilitating enduring client change (Barber, Connolly, Crits-Christoph, Gladis, & Siqueland, 2000; Hill & Nakayama, 2000).

Gelso and Hayes (1998) identified therapist strategies that foster an alliance characterized by mutual trust, acceptance, and confidence, namely, a) responding empathically using reflections of feelings or metaphors and b) openly and spontaneously expressing what the therapist is feeling regarding the client's behaviour, rather than strictly maintaining the pretense of a professional role, and c) reassuring clients that they are free to stop the process at any time.

If the WA deteriorates, Omer (1995) suggested reframing issues in positive terms, such as complimenting clients on their forthright behaviour as a prelude to exploring any dysfunctional aspects. Watson and Greenberg (2000) suggested a) accepting, and never even implicitly criticizing, clients' feelings of being confused, misunderstood or reluctant to collaborate, as well as b) asking forthrightly whether the therapist has done anything that has contributed to the client appearing disengaged from the therapeutic process. Safran and Muran (2000a) emphasized meta-communication regarding the status of the WA through questions such as: "How are you feeling about what is going on between us right now?" or "I feel like I am trying to make contact with you, but it's as if there is a wall up..." Both Safran and Muran (2000a, b) and Watson and Greenberg (2000) reiterated Rogers' (1975) conviction that the attitude and intention with which such interventions are used is crucial to bringing about desired change in the client's behaviour.

A meta-analysis of 24 studies by Horvath and Symonds (1991) found a moderate but reliable association between the quality of the WA and therapy outcome. Overall, the quality of the WA was most predictive of treatment outcomes based on clients' assessments, less so of therapists' assessments, and least predictive based on reports by observers.

Implications for I/O psychology. Training in the principles of a working alliance would appear to be especial-

ly important for a mentor, coach or trainer in organizational settings. The effectiveness of the mentoring process is likely dependent upon mutual agreement on the goals that are to be attained, the paths to attaining them, as well as reassurance that the process can be stopped at any time. Trainers, whether they are in a traditional role or acting as a mentor or coach, are likely to benefit from being taught to accept, rather than criticize, feelings on the part of trainees of being confused or misunderstood. As obvious as the following two hypotheses might appear to be, no study in I/O psychology has tested them, namely, a) variables such as trainee goal commitment, job performance, and satisfaction are higher when people are mentored, coached or trained by those who build a strong working alliance with them than when coaches or trainers fail to do so, and b) the mediators of the effect of a working alliance on performance are employee self-efficacy and outcome expectancies.

Attachment theory. An inherent danger in coaching and mentoring that is seldom, if ever, discussed, let alone studied, in the I/O literature is the dysfunctional attachment that can occur between the trainee and a mentor-coach. Attachment styles systematically influence how people seek and process information, interact with and evaluate others, engage in tasks, and regulate their emotions (Lopez & Brennan, 2000; Rice & Mirzadeh, 2000).

Attachment theory (Bowlby, 1969, 1979) states that from infancy people form an internal working model of other people as well as themselves, based upon the perceived accessibility of their primary caretaker. The three attachment styles are secure, anxious-ambivalent, and avoidant (Ainsworth, Blehar, Waters, & Wall, 1978). The two variables that determine a person's attachment style are one's beliefs that a) one is worthy of love, and b) that significant others can be depended upon to be accessible.

People with a secure attachment style view others as trustworthy and themselves as worthy of care. Anxious-ambivalent attachment results in a high dependence on others for a sense of well-being. There is an over-involvement in close relationships characterized by incoherence in discussions, unnecessary intrusions and interruptions, and exaggerated emotionality (Searle & Meara, 1999). The desire for closeness, combined with a fear of rejection often triggers angry protests when a significant other is perceived as ignoring them or as inaccessible (Bowlby, 1969).

An avoidant attachment style stems from consistent rejection of attempts at closeness. This sometimes culminates in a positive view of self and a negative view of others because of their perceived lack of availability.

Common to the three attachment styles is the tendency to seek and process information in a manner that confirms these respective core assumptions (Bowlby, 1969; Lopez & Brennan, 2000).

Attachment styles affect task exploration and engagement. The tendency to explore the environment only functions normally when attachment needs are adequately met (Bowlby, 1969). Many empirical studies have supported this premise (e.g., O'Brien, Freedman, Tipton, & Linn, 2000; Ryan, Solberg, & Brown, 1996). Perceiving an accessible "secure base" is positively related to people working without undue distraction, ambivalence or anxiety (e.g., Horowitz, Rosenberg, & Batholomew, 1993; Kemp & Neimeyer, 1999; Rice & Mirzadeh, 2000).

Hazan and Shaver (1990) found that two months after assessing the attachment style of 290 people, those with a secure attachment were most likely to report approaching their work with confidence, not being distracted from their work by unmet attachment needs, and not working primarily for the sake of pleasing or avoiding others. Anxious-ambivalent people, on the other hand, reported that relationship concerns often interfere with their work. Although preferring to work with others, they reported feeling misunderstood and unappreciated, were motivated by approval, and were worried that others would not be impressed with their work performance, or would reject them. Moreover, they had a lower mean monetary income than people with either of the other two attachment styles. People with an avoidant style were most likely to use their work as a means to minimize social interactions.

Implications for I/O psychology. A mail survey by Sumer and Knight (2001) examined the interplay (i.e., "spillover") between satisfaction at home and in the workplace. They found that dissatisfaction at home is more likely to spill over to work for people who are anxious-ambivalent, than those who are secure or avoidant. By contrast, secure individuals were likely to experience a positive spillover of satisfaction at home to the workplace, as well as in the opposite direction.

Cook (2000) obtained evidence that a) attachment security is relationship specific, b) the characteristics of the partners affect attachment security, and c) security of attachment is reciprocated. These results suggest that internal working models of relationships may not be as internal and fixed from infancy as Bowlby once stated. It would appear that mentors, coaches, and trainers might be able to use attachment theory as a framework for understanding the interactions that take place between themselves and the employees

who are working with them. Secure individuals are open to exploring their social environment whereas employees with an avoidant style may explore less and hence have less information to enable them to modify their expectations of others. People with an anxious-ambivalent attachment style tend to both focus on the wrong signals, and to misinterpret them: "For both types of insecure individual, the internal working model is not being properly updated. It is not working. It is too internal" (Cook, 2000, p. 292).

Of importance to I/O psychologists is that there is evidence that attachment styles can be changed from dysfunctional to a secure style. Kilmann, Laughlin, Carranza, Dower, Major, and Parnell (1999) conducted a three-day attachment-focused group intervention that addressed: a) dysfunctional relationship beliefs, b) relationship skills training, and c) relationship strategies. Among the action-steps were: a) discovering and disputing unrealistic relationship beliefs, such as: "If you loved me, you would know what I mean (or what I want)," b) exploring how one's family experiences shape expectations about relationships, as well as patterns of closeness and distance, c) using empowering metaphors to detach from negative past experiences, d) practicing and receiving feedback on challenging relationship skills such as resolving issues of power and control, and e) characteristics of being a positive relationship partner, such as honesty, sensitivity, and loyalty.

At the six-month follow-up, the participants in the training group reported improved interpersonal styles, enhanced satisfaction with family relationships, less fear, decreased agreement with dysfunctional relationship beliefs, and more secure attachment patterns relative to those in the control group. This workshop needs to be adapted to and systematically evaluated in organizational settings.

With a few notable exceptions (e.g., Horowitz et al., 1993), much of the research to date in clinical psychology (e.g., Hazan & Shaver, 1990) has been limited by percept-percept, and common method bias, which tends to inflate observed relationships between constructs (Crampton & Wagner, 1994). The limitations of this research highlight the need for studies by I/O psychologists that use multiple measures of the three attachment styles and their predicted consequences.

Identification of organizational characteristics most likely to elicit insecure attachments or trigger switching among styles are especially relevant in performance appraisals. An avoidant or anxious-ambivalent style on the part of a trainer or coach, as well as a supervisor, may result in them encoding less information about an employee (Fraleigh, Garner, & Shaver, 2000) and being less able to describe an employee's

behaviour objectively (Horowitz et al., 1993) than those with a secure attachment style. Other dependent variables for which this theory and methodology might prove beneficial include: a) conflict resolution, as people with a secure attachment style are more comfortable expressing their emotions as they experience them, while also being less internally focused on their feelings than those with insecure attachment styles (Creasey & Hoesson-McInnis, 2001; Searle & Meara, 1999); b) measures of group effectiveness, as attachment style affects time and activities shared with a group as well as social support (Smith, Murphy, & Coats, 1999); and c) career management, as those with a secure attachment style have high career search self-efficacy (Ryan, Solberg, & Brown, 1996) and career aspirations (O'Brien et al., 2000) as well as being committed to the career goals that they adopt (Blustein, Walbridge, Friedlander, & Paladino, 1991).

Discussion

Two axioms or core principles in the training literature in I/O psychology include: a) Performance = Ability x Motivation x Situational variables (Dunnette, 1973; Muchinsky, 1993); and b) an organizational analysis is necessary before training is conducted (Wexley & Latham, 2001). As conceived by McGehee and Thayer (1961), this analysis consists of three steps, namely, a) identifying the goals of the organization so that the goals of the individual can be aligned with them, b) conducting a needs analysis to determine the knowledge, skills, and abilities (KSAs) required of the trainee to attain those goals, and c) identifying the people who require training in order to acquire these KSAs.

I/O psychologists have excelled in the development of theory and methodology to implement these two axioms. The focus, however, has been almost exclusively on ways to increase the ability and motivation of the trainee rather than the trainer (Wexley & Latham, 2001). For example, organizational climate has been identified as a moderator of the extent to which what is learned during training is applied on an on-going basis on the job (Tracey, Tannenbaum, & Kavanagh, 1995). But there is a paucity of methodology for increasing the ability and motivation of the trainer, mentor, or coach in working with the trainee to establish an appropriate climate.

Likert (1967) identified the principle of a supportive relationship along with goal setting and involving the employee in decision-making as the core variables that constitute an effective leader. But no methodology is provided for training a leader in ways to behave supportively. Similarly, path-goal theory (House, 1971, 1996) stresses the importance of leaders working with

subordinates to identify pathways to goal attainment, but no training methodology is provided on ways to do this. Moreover, the emphasis is on cognition and behaviour. No consideration is given to the affect necessary between the trainer and the trainee, for increasing the probability of the trainee's commitment to the goals of training.

Adaptation of methodologies and techniques developed in clinical psychology may fill this void. They suggest ways that trainers can establish an effective working alliance with trainees; they suggest ways trainers can increase their ability to gain the commitment of trainees to the goals of the training program, as well as the goals of the overall organization; and they suggest ways to maintain trainee commitment to goals when obstacles and setbacks are encountered that thwart goal attainment. They await systematic evaluation by I/O psychologists in organizational settings.

Specifically, Bordin (1994) provided a methodology that may be applicable to ensuring a productive working alliance between trainers and trainees. Safran and Muran (2000a, b) also suggested steps that can be taken if the working alliance unravels. A moderating variable in establishing this alliance may be the attachment styles of the trainer as well as the trainee. Dysfunctional attachment styles of either party may trigger dysfunctional behaviour when one person is perceived by the other as inaccessible. Attachment theory (Bowlby, 1969, 1979) may sensitize both parties to be alert to dysfunctional relationship behaviours, and it may provide trainers and mentors with guidelines for correcting them (Kilman et al., 1999).

Goal-setting theory (Locke & Latham, 1990) provides a framework that I/O psychologists currently use to increase the trainee's motivation to learn and apply what is learned in training to the job. The empirical research in support of this theory suggests that specific challenging learning goals, with a focus on the discovery of heuristics and strategies, should be set when the trainee lacks the KSAs to perform the task for which the goal is set; outcome goals should be set after the KSAs have been acquired (Winters & Latham, 1996). In a dynamic environment, characterized by task uncertainty as to when different KSAs are important, both proximal and distal goals should be set (Latham & Seijts, 1999).

The *sine qua non* of goal setting is goal commitment, the motivation to attain the goal (Locke & Latham, 1990). I/O psychologists have excelled in developing measures of goal commitment (Seijts & Latham, 2000). Yet both theory and research are relatively silent on ways a mentor, coach or trainer can gain the trainee's commitment, as well as prevent it from becoming diminished when setbacks are

encountered. Again, theory and methodology in clinical psychology may fill this void in the I/O training literature by providing frameworks on ways trainees can frame their errors and difficulties so that they are not debilitating for them.

Social cognitive theory (Bandura, 1997) focuses on two mediating variables that have already proven invaluable to trainers, namely, self-efficacy and outcome expectancies. The theory specifies ways to increase self-efficacy that the knowledge, skills and abilities being taught by the training can be acquired, and the importance of strengthening the trainee's expectancies of desired outcomes of this mastery. What remains to be tested in organizational settings is the usefulness of Ellis' (1958, 1999) techniques. They may prove to be especially effective in training people who handicap themselves as a result of their dysfunctional self-talk regarding the necessity for perfection. Similarly, Seligman's (1998b) techniques for increasing optimism in light of repeated setbacks may prove effective in strengthening expectancies of attaining desired outcomes or goals upon mastery of the training subject matter.

By preventing trainees from becoming unduly distracted and discouraged by setbacks during learning and application of newly acquired KSAs, clinical techniques may be an answer to the call by Colquitt, LePine, and Noe (2000) for additional insight into individual and situational factors a) before training (regarding self-efficacy, outcome expectations, and training motivation), b) during training (regarding learning levels), and c) after training (regarding transfer and job performance).

The logistical viability of training trainers in these techniques is likely to be facilitated in part by scholarly societies such as the Canadian Psychological Association holding cross-discipline symposia as well as workshops conducted by clinicians for I/O psychologists on the above topics. The publication of the results of research, emanating from these symposia and workshops, in scientific and practitioner outlets is likely to capture the attention of trainers who are employed in organizational settings.

The term "boundaryless organization" was coined by Jack Welch, when he was CEO of General Electric, as a result of his frustration with the knowledge that was being hoarded within, rather than shared among, the divisions of GE. This term is now referenced in countless organizational behaviour undergraduate textbooks (e.g., Robbins, 2000). The present paper is in essence an advocacy for a boundaryless psychology, particularly the removal of the boundary between the I/O and the clinical psychological literature. This boundary has been erected by I/O psychologists in

part due to the relatively small sample sizes frequently employed by clinical psychologists in conducting their research as well as a reliance by them on client self-report data. Neither of these constraints exist in I/O psychology; hence neither of these constraints are an excuse by I/O psychologists for not subjecting clinical theories and methodologies to rigorous empirical testing in organizational settings. Doing so with regard to behavioural modeling, self-regulation, functional self-talk, and visualization have already advanced knowledge in the field of training and motivation in organizational settings; doing so with additional techniques and methodologies is likely to prove equally valuable. This rigorous examination from an I/O perspective will likely strengthen the examination of those concepts in clinical psychology.

Consistent with the CPA ethics code, clinical and I/O psychologists must be transparent with regard to the limits of their expertise. This paper does not suggest that the distinction between these two groups of psychologists should be ignored. They deal with different populations of individuals, they work in different settings, and they are trained to predict, understand, and influence very different dependent variables. Nevertheless, there appear to be productive commonalities between I/O and clinical psychology methods and techniques. The training methods of the latter can likely be adapted effectively by the former for enhancing employee performance in and satisfaction with organizational settings. Through bringing down the boundaries among the subdisciplines of psychology we are likely to accelerate the speed with which we advance psychology for all.

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Résumé

La documentation utilisée pour la formation en psychologie I/O s'est enrichie de la recherche empirique réalisée dans plusieurs domaines par la psychologie expérimentale, par exemple l'apprentissage massé par opposition à l'apprentissage distribué, la connaissance des résultats et le transfert de l'apprentissage acquis dans l'établissement de formation et transporté jusqu'au milieu de travail. Le présent article vise à faire ressortir que des progrès nouveaux dans le domaine de la formation ne seront pas possibles tant que ne s'opérera pas un changement de per-

spective sur le plan de la recherche, changement de perspective qui transposera la confiance aux conclusions issues de la psychologie expérimentale afin que celles-ci servent d'appui aux techniques de formation existantes en psychologie clinique, et plus particulièrement en psychologie cognitivo-comportementale. De plus, des progrès nouveaux dans le champ de la formation pourraient voir le jour si l'accent, porté sur le destinataire de la formation, à savoir le stagiaire, se déplace vers l'administrateur de la formation, à savoir le formateur.

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