INTEGRATING IMPLICIT MOTIVES, EXPLICIT MOTIVES, AND PERCEIVED ABILITIES: THE COMPENSATORY MODEL OF WORK MOTIVATION AND VOLITION

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ABSTRACT

The compensatory model of work motivation and volition synthesizes some previously unrelated lines of research. The structural components of the model are implicit motives, explicit motives, and perceived abilities. The functional processes are volitional regulation (compensating for inadequate motivation) and problem solving (compensating for inadequate perceived abilities). Propositions that integrate, challenge, and extend existing conceptions are derived. Moreover, the framework of the compensatory model suggests an agenda for future research.

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Why do some individuals reach their goals easily, while others, equally skilled, struggle and fail? Why do individuals sometimes not like the goals they voluntarily set? Which mechanisms allow a person to strive for aversive goals, and how can these mechanisms be improved? These questions are of theoretical and practical relevance, pertaining to work-related issues such as job design, recruitment, compensation, leadership, organization behavior modification, and organizational development. However, current approaches to work motivation do not address these questions.

To overcome this limitation, new theories of work motivation are needed, based on the distinction between implicit and explicit motive systems that has stimulated recent research in basic motivational psychology (Brunstein, Schultheiss, & Grässmann, 1998; Emmons & McAdams, 1991; McClelland, Koestner, & Weinberger, 1989; Spangler, 1992). In particular, the possibility that implicit and explicit motive systems might conflict with each other, a central proposition of the dual system approach to motivation (McClelland et al., 1989; Sheldon & Kasser, 1995), has not yet been incorporated in work motivation theories. Furthermore, mechanisms that resolve such conflict have not received much attention from work motivation investigators. I call these mechanisms volitional regulation (Kuhl, 1985; Sokolowski, 1993). There is abundant research on self-regulatory processes, but what Binswanger (1991), Kanfer and Ackerman (1989), and Latham and Locke (1991) conceptualized as self-regulation is too loosely defined to relate to specific mechanisms that resolve conflicts between implicit and explicit motives.

Several approaches to work motivation reserve a prominent role for perceived abilities and related constructs (Kanfer & Ackerman, 1989; Klein, 1989; Vroom, 1964). However, approaches to perceived abilities have generally not analyzed situations where this important behavioral ingredient is lacking, and which, as I argue here, require problem solving. Moreover, the relation of ability to implicit and explicit motives has not been examined in work motivation theories.

In sum, contemporary conceptions of work motivation largely ignore implicit motives; the distinction of implicit and explicit motives and the possibility of resulting intrapersonal conflict; volitional mechanisms to resolve such conflict; and the relation of these processes to perceived abilities and problem solving. To overcome these limitations, the compensatory model of work motivation and volition was developed.

I describe the structural components of the model (implicit motives, explicit motives, and perceived abilities) and explain the interrelations and interactive effects of these determinants of
work motivation. I then discuss the functional processes of the model (volition and problem solving). Because these functions compensate for inadequate motivation (volition) and inadequate perceived abilities (problem solving), the model is called the compensatory model.

The compensatory model is a synergetic approach to work motivation, intended to clarify, challenge, and extend existing conceptions. I demonstrate the advantages of the compensatory model by relating it to expectancy-value models (Vroom, 1964), goal setting theory (Locke & Latham, 1990), self-efficacy (Bandura, 1977) and self-regulation (Bandura, 1988), dual system approaches (McClelland et al., 1989), intrinsic and extrinsic motivation (Deci & Ryan, 2000), reward models (Lawler, 1971), and the work of Kanfer and collaborators (Kanfer & Ackerman, 1989; Kanfer & Heggestad, 1997). Finally, I suggest future research based on the compensatory model.

**STRUCTURAL COMPONENTS OF THE MODEL**

**Implicit Motives**

Dual system approaches to motivation have a long tradition in psychology (Allport, 1937; Freud, 1915/1967; Lewin, 1926; Wundt, 1896/1907). The general idea is that a person is a complex system that is composed of several subsystems (Brunstein et al., 1998; Cantor & Blanton, 1996; Deci & Ryan, 2000; Sheldon & Kasser, 1995). Particular emphasis is on implicit and explicit motive systems, which are assumed to drive, direct, and select behavior (Brunstein et al., 1998; McClelland et al., 1989).

Implicit motives, or latent motives, are conceptualized as associative networks connecting situational cues with basic affective reactions and implicit behavioral tendencies (McClelland, Atkinson, Clark, & Lowell, 1953). Implicit motives are related to unconscious needs (Maslow, 1943) and basic and organismic needs (Deci & Ryan, 2000). In general, implicit motives are not consciously accessible; they are sub-consciously aroused and lead to affective preferences and implicit behavioral impulses (McClelland, 1985; McClelland et al., 1989). Implicit motives result in spontaneous, expressive, and often pleasurable behavior (McClelland et al., 1989). They develop early in life and are relatively independent of social demands in later life (Koestner, Weinberger, & McClelland, 1991; McClelland, 1985).

McClelland (1995) refers to the “big three” implicit motives: power, achievement, and affiliation. The power motive relates to dominance and social control (e.g., a CEO presenting the company’s new mission statement at an annual general meeting). The achievement motive is aroused when personal standards of excellence are to be met or exceeded (e.g., a worker trying to increase output). Finally, the affiliation motive is aroused when social relationships are established and
intensified (e.g., an employee extending a break to finish a talk with a new colleague). Researchers also differentiate hope (i.e., approach) and fear (i.e., avoidance) motives (Atkinson, 1964; Higgins, 1998; Kanfer & Heggestad, 1997).

Because implicit motives are not consciously accessible, they are assessed by operant, fantasy-arousing picture-story tests such as the Thematic Apperception Test (TAT; Murray, 1943; cf. McClelland, 1985). The TAT was designed to assess affectively charged associative networks, not values (Vroom, 1964) or conscious self-concepts (Markus & Wurf, 1987). The idea underlying the TAT is that pictorial stimuli differentially arouse implicit motives, and implicit motive strength is reflected in the motive-thematic story content, without much distortion by cognitive interference, which would have to be expected if people were explicitly asked about their motives. Spangler (1992) summarized the early concerns about the TAT, particularly regarding its reliability (Entwisle, 1972). McClelland (1985) argued that the low reliability of the TAT is caused by the instruction to invent creative stories. Without this instruction, reliability coefficients are substantially improved. Spangler’s meta-analysis rehabilitated the TAT by showing that the TAT predicts behavioral outcomes better than questionnaires, particularly those related to intrinsic, or task-related, incentives.

According to McClelland et al. (1989), systematic self-observation is an additional method to enhance self-awareness of one’s implicit motives. Although implicit motives are not directly consciously accessible, they give rise to affective preferences and implicit behavioral impulses, which may be systematically observed (cf., Schwarz & Bohner, 1996).

**Explicit Motives**

Explicit motives are the reasons people self-attribute for their actions (McClelland, 1995; McClelland et al., 1989). For example, a hard-working person may self-identify as an "achievement-oriented person." Explicit motives are identical with values in Atkinson’s (1964) and McClelland’s (1985) terminology, but McClelland et al. (1989) decided to replace values by self-attributed or, synonymously, explicit motives to avoid confusion with approaches defining values as normative beliefs about desirable modes of conduct (e.g., Rokeach, 1979).

Explicit motives are consciously accessible, and may be assessed with questionnaires based on self-ascriptions, such as the Personality Research Form (PRF; Jackson, 1984). Similar to implicit motives, explicit motives may be categorized according to motive themes (Brunstein et al, 1998; Emmons & McAdams, 1991), for example in achievement, dominance, and affiliation-related categories (Jackson, 1984). In contrast to implicit motives, explicit motives are strongly influenced by social demands and normative pressures (Koestner, et al., 1991; McClelland, 1985). Activated
explicit motives generate cognitive preferences (e.g., in a test situation, a person with high self-ascribed achievement motives will develop strong cognitive preferences for achieving high test results).

Explicit motives are particularly influential in determining cognitive choices (e.g., task-choice) (McClelland, 1985; Spangler, 1992). Combined with other factors, notably perceived abilities (Feather, 1982), explicit motives are closely related to the development of goals (Brunstein et al., 1998; McClelland, 1985). Other prominent constructs rooted in the explicit motive system, besides goals (Brunstein et al., 1998) and values (Atkinson, 1964; McClelland, 1985), are intentions (Gollwitzer, 1999) and self-concepts (Markus & Wurf, 1987).

**Perceived abilities**


Ajzen (1991) outlined the reasons for the decision to concentrate on perceived instead of actual abilities. If the primary interest is in determining output of motivated endeavors, the focus should be on actual abilities that “must to some extent dictate the likelihood of behavioral achievement” (: 183). If, however, the focus is on motivationally relevant antecedents of behavior and the dynamics in which these factors combine, perceived abilities are “of greater psychological interest” (: 183; for similar arguments, cf. Bandura, 1977; Tubbs & Ekeberg, 1991). In line with Ajzen (1991), Bandura (1977), and Vroom (1964), the compensatory model focuses on perceived instead of actual abilities. Similar to Tubbs and Ekeberg (1991), perceived abilities are conceived of as an individual’s perception of the amount of actual control she or he can exert over the environment. This definition of perceived abilities excludes meta-level constructs such as heuristic competence (Doerner & Wearing, 1995), but it closely relates to Ajzen’s (1991) perceived control, Bandura’s (1977) self-efficacy, and Vroom’s (1964) expectancies. Although a fine-tuned analysis may identify nuances in which these constructs differ (Ajzen, 1991; Bandura, 1991), it lies beyond the scope of this paper to discuss such differences.

Social support, modeling, and attribution affect perceived abilities, but the major determinant is
past performance (Bandura, 1977; Carver & Scheier, 1982; Kanfer & Ackerman, 1989). Successful performance generally leads to the conviction that similar behaviors can be successfully executed (Bandura, 1977), accompanied by perception of the relative ease of performing similar behaviors (Ajzen, 1991).


RELATIONS AMONG THE STRUCTURAL COMPONENTS OF THE MODEL

This section discusses the conceptual and empirical relations among structural components of the compensatory model. First, the relation of implicit and explicit motives is described, and then perceived abilities are integrated into the analysis.

Implicit Motives and Explicit Motives

A central proposition of dual motive system approaches is that implicit and explicit motives relate to different aspects of the person (McClelland et al., 1989; Spangler, 1992). Activation of implicit and explicit motives is largely independent (Brunstein et al., 1998; McClelland et al., 1989; cf. Epstein, 1998; Metcalfe & Mischel, 1999). Implicit motives are aroused by factors intrinsic to the activity and explicit motives are aroused by factors extrinsic to the activity (Koestner et al., 1991; cf. Deci & Ryan, 2000). For example, a manager high on implicit affiliation motive might enjoy the companionship of a friendly, although unproductive, subordinate (intrinsic), but still defer to the social demands of his or her supervisor to increase productivity by dismissing the subordinate (extrinsic). Using Berlew’s (1986) push-pull metaphor, implicit motives “push” and explicit motives “pull” the individual.

In contrast to explicit motives, implicit motives are built on associations with innately triggered affective experiences, called natural incentives (McClelland et al., 1989: 697). For example, the natural incentive for the power motive is to have an impact on human affairs. McClelland et al. (1989) reviewed studies suggesting natural incentives differentially arouse implicit motives, not explicit motives, and trigger characteristic hormonal reactions.

Implicit and explicit motives have distinct effects on behavior. On a proximal level (cf., for the
distinction of proximal and distal motivation processes, Kanfer & Heggestad, 1997), aroused implicit motives lead to affective preferences (“I like this person”) and implicit behavioral impulses (“I would like to spend more time with her”). Here, *implicit* means these behavioral impulses do not necessarily reflect the person’s self-ascriptions or explicit values (perhaps the individual in the above example “knows” that the liked person is a persona non grata). In contrast, activated explicit motives result in cognitive preferences (“I want this prestigious job”) and explicit action tendencies (“I try to influence my boss to promote me”). Here, *explicit* means action tendencies are consciously reflected and consistent with the person’s self-ascribed motives.

On a distal level, implicit motives become particularly influential in determining long-term behavioral trends (McClelland, 1985). Spangler’s (1992) meta-analysis, Heckhausen’s (1991) extensive review, and applied research (e.g., Chusmir & Azevedo, 1992; Langens, 2001; McClelland & Franz, 1992; Sokolowski & Kehr, 1999) lend empirical support for this notion. In contrast, explicit motives (or values), influence cognitive choices and goal setting (e.g., Ajzen, 1991; Atkinson, 1964; Locke & Latham, 1990; McClelland, 1985; Tubbs & Ekeberg, 1991; Von Rosenstiel, Kehr, & Maier, 2000; Spangler, 1992; Vroom, 1964). For example, people with an *explicit* power motive (who highly esteem power and influence) may aim for influential positions with power and prestige. In contrast, people with an *implicit* power motive seek intrinsic experiences of having impact, but not necessarily influential positions. Winter’s (1982) study of presidential candidates illustrates this difference: Candidates high on implicit achievement motive dropped out if they had no realistic chances to win, whereas candidates high on implicit power motive continued their election campaigns, even if winning seemed impossible. Those with an implicit power motive obviously enjoyed media presence, walkabouts, and other high-impact situations that come about in an election campaign.

This discussion shows implicit and explicit motives are *conceptually independent* determinants of behavior. Regarding the empirical relation of these constructs, Spangler’s (1992) meta-analysis indicated that implicit and explicit motives are empirically uncorrelated. However, others reported small but significant correlations between implicit and explicit motives (Cantor & Blanton, 1996; Emmons & McAdams, 1991; King, 1995; Sokolowski et al., 2000). These inconsistent findings suggest the empirical relation between implicit and explicit motives may depend on the sample considered: Some people may integrate implicit and explicit motives, while others don’t (McClelland, 1989; Mischel, 1999; Sheldon & Kasser, 1995). Some people closely observe their affective preferences and implicit behavioral impulses, enabling them to gain access to their implicit motives, adjust their goals, and enhance concordance of implicit and explicit motives (Deci & Ryan,
Implicit and explicit motives, although conceptually independent, may nonetheless interact. For example, McClelland et al. (1989) asserted that explicit motives may “channel” the way in which implicit motives are expressed (cf., McClelland, 1985, 1995; cf. Emmons, 1989). Implicit achievement motives, for instance, reflect affective preferences to do something well. Here, *something* denotes a class of potential behaviors. Which behavior is enacted depends on the explicit motives of the person. For example, a person high on implicit affiliation motive who wants to remain in solitude (the explicit motive) might write letters to contact people indirectly (Constantian, 1981, cited in McClelland, 1985).

Behavioral tendencies resulting from implicit and explicit motives can be concordant or discrepant (Brunstein et al., 1998; McClelland et al., 1989). According to McClelland et al. (1989), the larger the discrepancy between implicit and explicit motives, the more incompatible the resulting behavioral tendencies will be. So, it may be assumed that individuals with low self-awareness for affective preferences and implicit behavioral impulses tend to develop goals incongruent with their implicit motives.

Research shows that discrepancies between implicit and explicit motive systems cause intrapersonal conflict in terms of conflicting behavioral tendencies and may result in preference reversals, performance deficits, impaired well-being, and health problems (Bazerman, Tenbrunsel, & Wade-Benzoni, 1998; Brunstein et al., 1998; McClelland et al., 1989; Ryan & Deci, 2000; Sheldon & Kasser, 1995). A counterintuitive example is provided by Brunstein et al. (1989). Most people think goal attainment should lead to satisfaction and well-being (cf., Locke & Latham, 1990, chapter 10). However, Brunstein et al. (1998) showed that goal attainment only leads to well-being if goals are congruent with a person’s implicit motives; commitment to need-incongruent goals can decrease well-being. From the discussion above, the following propositions are derived:

**Proposition 1.** Implicit motives and explicit motives are conceptually independent and have distinctive effects on working behavior. Aroused implicit motives are associated with affective preferences, implicit behavioral impulses and spontaneous behavior; activated explicit motives are associated with cognitive preferences, explicit action tendencies, and cognitive choices.

**Proposition 2.** Discrepancies between implicit and explicit motives cause intrapersonal conflict due to conflicting behavioral tendencies, and result in impaired well-being and failure.

Discrepancies between implicit and explicit motives, conceptualized at an abstract level of
representation (McClelland et al, 1989), at first initiate latent behavioral conflict. Behavioral conflicts become manifest, if implicit behavioral impulses (originating in aroused implicit motives) and explicit action tendencies (stemming from activated explicit motives) are incompatible at a given moment.

**Incorporating Perceived Abilities**

Perceived abilities are conceptually independent of implicit and explicit motives. We may perceive ourselves capable of living a healthy life, or of doing all the housework for our family, and still not intend to do so. On the other hand, many cognitive and affective preferences exist despite insufficient perceived abilities. For example, a manager may adopt the goal to cut the costs of his or her work unit despite limited perceived ability to determine how these cuts should be enacted.

McClelland (1985) showed that differentiation of implicit motives, explicit motives, and perceived abilities was a principle concern for early motivation theorists like Hull (1952) and Atkinson (1964). During the “cognitive revolution”, however, the implicit motive to achieve success (originally conceptualized as a non-conscious, affectively-toned variable; cf. McClelland et al., 1953) was reinterpreted in cognitive terms. It was first collapsed with the probability of success (Atkinson & Feather, 1966), and later abandoned in favor of a purely cognitive approach (Feather, 1982).²

Kehr, Von Rosenstiel, and Bles (1997) found that items measuring affective preferences, cognitive preferences, and perceived abilities repeatedly loaded on three separate factors, without any sizable cross-loadings. McClelland (1985) summarized a study showing that perceived abilities were unrelated to implicit motives, but correlated with explicit motives. He argued that both variables “are influenced by the subjects’ cognitive understanding of what kind of people they are” (1985: 818). Further evidence shows correlations between perceived abilities and explicit goals (Ajzen, 1991; Bandura, 1977; Vroom, 1964).

Research on the implicit motive-perceived abilities relation is scarce. Given that perceived abilities are a by-product of past behavior (Ajzen, 1991; Bandura, 1977), and that behavior can be seen as an instantiation of implicit motives (Steers & Spencer, 1971), the implicit motive-behavior-perceived abilities effect chain may account for some (but generally small) empirical relation between implicit motives and perceived abilities.

As an isolated factor, perceived abilities have no motivational significance. Bandura, for example, recognized that self-efficacy must combine with “appropriate skills and adequate incentives” (1977: 194) to determine motivation. Consequently, Tubbs and Ekeberg noted, “Claims of direct causal relationships between perceived control over actions (e.g., self-efficacy) and
performance should be viewed with caution” (1991: 196). Similarly, Ajzen (1991) held that perceived control is not the only determinant of behavior, but that “intentions are influenced by additional factors, and it is because of these factors that two individuals with different perceptions of behavioral control can have equally strong intentions” (1991: 184).

For behavioral relevance, perceived abilities must combine with motives. Tidying one’s desk, or doing the dishes, are common skills, but not necessarily in accord with one’s implicit and explicit motives. Conversely, the advice, “You can do it!” is no real help to a person who is afraid of (or dislikes) bungee jumping. Behavioral significance is achieved through liaisons between perceived abilities and explicit motives (“I want to jump”). This leads to the formation of intentions (Gollwitzer, 1993; Tubbs & Ekeberg, 1991) and goals (Feather, 1982; Vroom, 1964), which are known to have motivational significance (Hollenbeck & Klein 1987; Latham & Locke, 1991).

The present conception refutes Bandura’s notion, that “people will avoid transactions [...] they perceive as exceeding their ability” (1977: 203). People may engage in transactions, even those perceived as exceeding their ability, if sufficiently motivated (the motivation may stem from aroused implicit motives or activated explicit motives). This is evident when people strive for extremely improbable results (e.g., physicists aiming to find the link between cosmology and quantum mechanics). Hence,

**Proposition 3.** Perceived abilities are conceptually independent of implicit and explicit motives.

**Proposition 4.** Perceived abilities alone are not sufficient to determine behavior, but may combine with explicit motives to determine task choice and goal setting. Conversely, insufficient perceived abilities do not preclude motivated behavior.

RESOLVING INCONGRUENCE AMONG STRUCTURAL COMPONENTS: VOLITION AND PROBLEM SOLVING

**Volition**

Cognitive investigators propose that higher order cognitive preferences (e.g., goals or intentions) may temporarily override lower order, automatic behavioral impulses (Ach, 1910; Bargh, 1984; Posner & Snyder, 1975). This section describes how volitional mechanisms, supporting cognitive preferences, may realize such impulse suppression.

Recent approaches to volitional regulation consider intrapersonal conflicts from conflicting behavioral tendencies and the strategies people use to overcome this conflict (Ainslie & Haslam, 1992; Bazerman et al., 1998; Kanfer & Heggestad, 1997; Kehr, 2000; Kuhl, 1985; Kuhl &
Fuhrmann, 1998; Kuhl & Goschke, 1994; Loewenstein, 1996; Metcalfe & Mischel, 1999; Mischel, Cantor, & Feldman, 1996; Muraven & Baumeister, 2000; Sokolowski, 1993). Work-related intrapersonal conflicts include resisting temptations (stock brokers dealing with the assets of others), overcoming fear (salespeople “cold calling” new customers) and persisting in a strenuous task (project managers attempting to meet rigid project deadlines). Such conflicts are resolved by volitional strategies, including attention control (ignoring the amount of money one is managing) (Egeth & Yantis, 1997; Norman & Shallice, 1986), emotion control (adjusting one’s emotional states to the demands of a sales process) (Erber & Erber, 2000; Forgas, Johnson & Ciarrochi, 1998; Morris & Reilly, 1987), and motivation control (anticipating gratifications expected after finishing a project) (Mischel, 1996; Oettingen, Pak, & Schnetter, 2001).

Volition can be defined as an array of self-regulatory strategies to support explicit action tendencies against competing behavioral impulses. This concept of volition is related to willpower (Metcalfe & Mischel, 1999; Mischel, 1996, 1999), self-control (Ainslie & Haslam, 1992; Muraven & Baumeister, 2000), and self-regulation (Kuhl & Fuhrmann, 1998). However, volition is narrower than Latham and Locke’s (1991) and Bandura’s (1991) concept of self-regulation or Binswanger’s (1991) term of volition. These latter constructs include every goal-related effort, not just those efforts where intrapersonal conflicts must be resolved or unwanted impulses overcome.

Volitional regulation is needed to support cognitive preferences insufficiently motivated by, or discrepant from actual implicit behavioral tendencies (Brunstein et al., 1998; Emmons, 1999; Epstein, 1998; Kuhl & Goschke, 1994; Ryan et al., 1996). Discrepancies between implicit and explicit motives are assumed to lead to conflicting behavioral tendencies requiring volitional regulation (Brunstein, Schultheiss, & Maier, 1999; Emmons, 1999; Epstein, 1998; Ryan et al., 1996). Conversely, volitional regulation is not needed for cognitive preferences congruent with affective preferences (Karoly, 1993; Sokolowski, 1993), that is, if aroused implicit and activated explicit motives are thematically congruent. This distinction was highlighted by Sokolowski (1993), who contrasted “motivational regulation states” (behavior energized by implicit motives) and “volitional regulation states” (behavior insufficiently energized by implicit motives and requiring volitional support). Hence,

Proposition 5. Volitional regulation is required to compensate for insufficient motivation due to discrepancies between implicit and explicit motives. When implicit and explicit motives are congruent, no volitional regulation is required.

A closer look reveals that volitional regulation has a two-fold function: to enhance explicit action
tendencies (networking despite being low on power and affiliation motive), and to suppress unwanted implicit behavioral impulses (avoiding thoughts of a tempting sailing trip, when one intends to work during the week-end) (Forgas et al., 1998; Mischel, 1996; Norman und Shallice, 1986). Atkinson and Birch (1970), for example, contrasted “inhibitory” forces suppressing behavioral impulses and “instigating” forces enforcing activated goal representations. Kanfer and Heggestad (1997) contrasted suppression of implicit anxiety reactions and support of explicit achievement-related goals as two main functions of motivational skills (volition). Accordingly,

**Proposition 6.** Volitional regulation has a two-fold function. Volition is needed (a) to support explicit action tendencies (activated explicit motives) discrepant with affective preferences (aroused implicit motives), and (b) to suppress implicit behavioral impulses (aroused implicit motives) discrepant with cognitive preferences (activated explicit motives).

Like other psychological processes, volitional regulation may have deficiencies (Baumeister & Heatherton, 1996). There are at least five inter-related problems. First, volition can be ineffective, as shown with respect to emotion control (Morris & Reilly, 1987) and attention control (Wegner, 1994). Ineffective volition accounts for difficulties in suppressing tempting impulses and supporting intentions such as quitting smoking and keeping a diet (Polivy, 1998). Second, volition may block cognitive capacities, which then are unavailable for other task-related activities (Kanfer & Ackerman, 1989). Third, volitional regulation can be associated with rigid self-control (“overcontrol”; Asendorpf & van Aken, 1999; cf., Kuhl & Fuhrmann, 1998). In a work-related context, Kehr, Bles, and Von Rosenstiel (1999) found that rigid self-control impeded managers’ goal attainment and affective responses. Forth, volition may have negative side effects such as strain, emotional distress, maladaptive behavior, and behavioral excesses after relapse (Cantor & Blanton, 1996; Polivy, 1998). People who constantly overemphasize cognitive preferences, ignore affective preferences, and use dysfunctional volitional strategies (e.g., negative fantasies, extreme internal pressure) may suffer from impaired well-being and alienation (Deci & Ryan, 2000; Kuhl & Fuhrmann, 1998; Polivy, 1998). Fifth, and perhaps most important, volition consumes limited resources. After volitional acts (e.g., eating radishes rather than tempting chocolates), subsequent acts of volition (e.g., suppressing emotional reactions) are more likely to fail (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Muraven & Baumeister, 2000). These findings led Muraven and Baumeister (2000) to propose a resource-based concept of self-control strength, where volitional acts may consume and ultimately “deplete” resources.
Using a management sample, Kehr (in press) studied volitional depletion with implicit and explicit motives and found that implicit/explicit motive discrepancies predicted decreased volitional strength and well-being and that the discrepancy/well-being relation was fully mediated by reduced volitional strength. Here, *volitional strength*, defined as the person’s proficiency in using volitional strategies, is essentially identical to *self-control strength* (Muraven & Baumeister, 2000), *volitional competence* (Kuhl & Fuhrmann, 1998), and *motivational skills* (Kanfer & Heggestad, 1997). Accordingly,

**Proposition 7.** Volitional regulation can have deficiencies, in that it may be ineffective, block cognitive capacities, be associated with rigid self-control, have negative side-effects, and require volitional resources possibly resulting in depleted volitional strength. The larger the discrepancies between implicit and explicit motives, the more deficiencies are to be expected.

**Problem solving**

Repeated behavioral experiences lead to development of automatic control processes, relieving capacity-limited, conscious cognitive processing of the burden of controlling the behavior (Posner & Snyder, 1975; Schneider & Shiffrin, 1977). These automatic control processes eventually amalgamate to automatic control programs that guide routine behaviors. Such behavioral programs are called *scripts* (Lord & Kernan, 1987; Schank & Abelson, 1977). Script theory suggests that non-routine situations, environmental obstacles or personal mistakes lead to script interruptions and require additional problem solving (March & Simon, 1958) and planning (Schank & Abelson, 1977). Shifts from automatic processing to conscious problem solving enhance one's capacity to successfully cope with situational demands (Atkinson & Birch, 1970; Carver & Scheier, 1982), but they absorb attentional capacity and are experienced as effortful (Schneider & Shiffrin, 1977).

Several constructs have been proposed for unlearned processes used in novel, unexpected, or difficult situations and that require capacity-limited attention, for instance *conscious control* (Klein, 1989; Posner & Snyder, 1975), *conceptual and controlled processing* (Leventhal & Scherer, 1987; Schneider & Shiffrin, 1977), *problem solving* (March & Simon, 1958), and *planning* (Klein, 1989; Schank & Abelson, 1977). There are subtle differences between these constructs. For example, conscious control and controlled processing, essentially identical, are generic terms for conscious cognitive activity and embrace problem solving and planning. Planning involves anticipating future developments (Doerner & Wearing, 1995) and developing goal hierarchies (Cropanzano, Citera, & Howes (1995), and is thus not restricted to script interruptions. Here, *problem solving*, being more
specific, is the more adequate term, because problem solving involves a “problem” (i.e., an unscripted situation) requiring conscious attention for solution. Hence, the compensatory model focuses on problem solving (Doerner & Wearing, 1995; March & Simon, 1958; Nair, 2000; Smith, 1997), defined as conscious processes used to overcome environmental difficulties (e.g., novel situations or exceptional task demands) when no behavioral routines exist.

How does problem solving relate to perceived abilities? Perceived abilities are conceptualized at a distal level (because they help determine the allocation of attention; Kanfer & Ackerman, 1989) and problem solving happens at a proximal level (because it requires re-allocation of attention; Kanfer & Ackerman, 1989), so this question is not trivial. The answer lies in the fact that both variables are determined by essentially the same processes. Past performance, in particular, is a chief determinant of perceived abilities (Bandura, 1977; Carver & Scheier, 1982) and the scripted behavioral repertoire of a person (Lord & Kernan, 1987; Schank & Abelson, 1977). Hence, perceived abilities largely reflect an individual's scripted response patterns. Consequently, low perceived abilities are associated with inadequate, less-developed, or non-existing behavioral routines. If behavioral routines are unavailable, problem-solving (Doerner & Wearing, 1995; Klein, 1989; March & Simon, 1958) is required. Thus, inadequate perceived abilities are positively associated with problem-solving requirements.

The fact that a person's scripted repertoire reflects actual and not perceived abilities is not in conflict with this proposition. Script theorists hold that script interruptions depend on whether the person perceives obstacles in the environment or a novel situation (Lord & Kernan, 1987; Schank & Abelson, 1977). A person with low perceived ability will have lower perceptional thresholds leading to more frequent script interruptions than a person with high perceived ability (for similar arguments, see Kanfer & Ackerman, 1989). Accordingly:

**Proposition 8.** Perceived abilities are negatively associated with the requirement of problem solving.

**Contrasting Volition and Problem Solving**

The compensatory model draws a sharp line between problem solving and volition. As explained above, problem solving compensates for insufficient abilities and overcomes environmental (extrapersonal) difficulties, whereas volition compensates for insufficient motivational support and resolves intrapersonal conflicts from competing behavioral impulses originating in implicit-explicit motive discrepancies (Sokolowski, 1993; cf., Muraven & Baumeister,
2000). For example, consider a typical environmental difficulty when a driver finds the road is blocked by a fallen tree. The person is highly motivated to overcome this obstacle. Problem solving (thinking about alternate routes) is necessary. Volitional strategies (visualizing possible positive outcomes) are useless. On the other hand, intrapersonal conflicts from tempting impulses (to disregard organizational regulations) or insufficient motivation (to work overtime) demands volitional regulation (to support cognitive preferences and suppress temptations). Here, problem solving has little or no benefit.

There is support for this notion in cognitive psychology. Behavioral cues, serving as stimuli for affective, cognitive, and conative reactions, may be differentiated into external cues (from perceptions of the environment) and internal cues (from internal sensations of the person’s mind and body) (James, 1890/1981; LeDoux, 1995; Leventhal & Scherer, 1987). LeDoux (1995) called these exteroceptive and interoceptive inputs. As cues are generally subject to affective and cognitive evaluation (not necessarily consciously reflected) (LeDoux, 1995; Leventhal & Scherer, 1987), both internal and external cues may be categorized as being either supportive or obstructive. From this perspective, intrapersonal barriers reflect internal obstructive cues, and extrapersonal difficulties reflect external obstructive cues.

Like perceptions (the input), behaviors (the output) may also be categorized as internally directed or externally directed (Norman & Shallice, 1987). The compensatory model calls internally directed behaviors aimed at overcoming intrapersonal barriers volition, and externally directed behaviors aimed at overcoming extrapersonal barriers problem solving (Kehr, 2000; Sokolowski, 1993). As early as 1890, James proposed a similar distinction, writing: "Volition is primarily a relation, not between our Self and extra-mental matter (as many philosophers still maintain), but between our Self and our own states of mind“ (1890/1981: 1172). More recent approaches differentiating internally aimed volition and externally aimed problem solving include Lazarus, Kanner, and Folkman (1980) and Taylor and Schneider (1989). Research on volition depletion supports this distinction, showing that suppressing temptations or unwanted emotions and compensating for inadequate motivation impairs subsequent volitional regulation (Muraven & Baumeister, 2000). In contrast, behavior requiring problem solving, but not volition (e.g., solving math problems), does not impair subsequent volitional regulation (Muraven, Tice, & Baumeister, 1998, Experiment 3; cf. DeShon, Brown, & Greenis, 1996). Hence,

**Proposition 9.** Volitional regulation and problem solving fulfill distinct functions. The requirement for volition is independent of perceived abilities, and the requirement for problem
solving is independent of the relation between implicit and explicit motives.

As detailed above, problem solving and volitional regulation both require attentional capacity (Kanfer & Ackerman, 1989; Schneider & Shiffrin, 1977). Attentional capacity is restricted, so actions requiring both volitional regulation and problem solving are likely to be abandoned (due to inefficient volition), or fail (due to inefficient problem solving). A person preoccupied with volitional regulation may fail to notice signals indicating unexpected environmental developments, resulting in delayed script interruptions and inefficient problem solving (cf. Doerner & Wearing, 1995). Conversely, extreme extrapersonal difficulties associated with excessive problem solving demands may lead to reassessment of cognitive preferences (Carver & Scheier, 1982; Klinger, 1975). Accordingly,

**Proposition 10.** Actions requiring both problem solving and volitional regulation are likely to be abandoned or lead to failure.

**CONGRUENCE OF IMPLICIT MOTIVES, EXPLICIT MOTIVES, AND ABILITIES**

As simultaneous examinations of implicit motives, explicit motives, and perceived abilities are scarce, I first address consequences of congruent implicit and explicit motive systems and then widen the perspective to include perceived abilities.

Ample research suggests congruence of implicit and explicit motive systems is associated with low intrapersonal conflict, intrinsic motivation, and successful performance, the preconditions for happiness, well-being, and health (Brunstein et al., 1998; Deci & Ryan, 2000; Mischel, 1999; Ryan & Deci, 2000; Ryan, Sheldon, Kasser, & Deci, 1996; Sheldon & Elliot, 1999). Sokolowski (1993) suggested congruent implicit and explicit motives are associated with motivational regulation states requiring no volitional regulation. Thus, motivation regulation states should save volitional resources. In support of this notion, Kehr (in press) found that implicit/explicit motive congruence does not deplete volitional strength.

The compensatory model indicates that a prerequisite for intrinsic motivation is that the behavior at hand is thematically congruent with actual affective preferences stemming from aroused implicit motives (cf., McClelland, 1985; McClelland et al., 1953). As in “autotelic” conceptions (e.g., Csikszentmihalyi, 1975; Deci & Ryan, 2000), it is proposed here that intrinsic motivation does not depend on support from cognitive preferences. Many climbers, for example, do not climb a mountain just to reach the summit, but rather try to reach the summit for the intrinsic joy of climbing. Nevertheless, it seems likely that intrinsic motivation from aroused implicit motives (Puca
& Schmalt, 1999; Sokolowski & Kehr, 1999) is accompanied by more profound experiences of meaning (Hackman & Oldham, 1980) and purposefulness (Thomas & Velthouse, 1990) only if aroused implicit and activated explicit motives are thematically congruent.

Arousal of implicit motives does not always lead to intrinsic motivation, because an additional requirement is the absence of competing cognitive preferences. A crossword puzzle may potentially arouse implicit achievement motives and lead to intrinsic motivation, but knowing one is late for work would suppress such motivation. Such situations were described earlier as volitional suppression of unwanted implicit impulses. This conception allows for partial congruence of implicit and explicit motives, suggesting that activated explicit motives only counteract intrinsic motivation or relate to extrinsic motivation if they compete with affective preferences. This discussion leads to the following proposition:

**Proposition 11.** Behavioral congruence with affective preferences (aroused implicit motives) is a necessary, but not sufficient, condition for intrinsic motivation. Behavioral congruence with affective and cognitive preferences (activated explicit motives) is a sufficient condition for intrinsic motivation.

High perceived abilities are associated with a well-organized, scripted behavioral repertoire and low requirements of problem solving. Hence, if perceived abilities combine with congruent implicit and explicit motives, neither extrapersonal nor intrapersonal difficulties are expected, and no support of problem solving or volitional regulation is needed (Karoly, 1995; Sokolowski, 1993). Such situations are characterized by task-enjoyment and low experienced effort (even if the objective difficulty of the task at hand might be high), and will generally be associated with behavioral success.

At first, this phenomenology seems to resemble Deci and Ryan’s (2000) intrinsic motivation and Csikszentmihalyi’s (1975) flow, the latter being described as a specific case of intrinsic motivation characterized by undivided attention to the task, impaired sense of time, and absence of intrapersonal conflict, self-referential, or other distracting thoughts (Csikszentmihalyi, 1988; Heckhausen, 1991). However, the compensatory model differs from alternative approaches to intrinsic motivation (for reviews, cf. Kanfer, 1990), particularly those that saw perceived abilities as critical, for example Csikszentmihalyi’s (1975) flow concept.

As stated, the sufficient condition of intrinsic motivation does not include perceived abilities: Low perceived abilities *per se* do not preclude intrinsic motivation. However, low perceived abilities preclude flow experience, because low perceived abilities are associated with frequent script
interruptions that counteract the experience of flow. Hence, congruent implicit and explicit motives (the sufficient condition for intrinsic motivation) must combine with perceived abilities to allow flow experience.

In contrast to Csikszentmihalyi (1975, 1988), it is asserted here that perceived abilities surpassing task demands do not necessarily lead to boredom, or otherwise counteract flow. Consider, for example, flow experiences in reading, which are largely independent of reading proficiency and do not decrease for the experienced reader. Low, compared to high, task demands only counteract flow if they prevent arousal of flow-concordant implicit motives or activate conflicting explicit motives (e.g., the reader may not like or want to read a simple book). Hence,

**Proposition 12.** Congruence of implicit motives, explicit motives, and perceived abilities is associated with flow experiences.

**SUMMARY OF THE COMPENSATORY MODEL**

Figure 1 is a schematic overview of the compensatory model. The three structural components of the model, implicit motives, explicit motives, and perceived abilities, are represented by the three circles of Figure 1, symbolizing their conceptual distinctiveness. The circles partially overlap, indicating the empirical relation of the structural components. Figure 1 can be used for distal analysis of latent conflict (where the circles represent the overall structure implicit motives, explicit motives, and perceived abilities), and for proximal analysis of manifest conflict and regulation requirements (where the circles represent implicit behavioral impulses, explicit action tendencies, and scripted behavioral patterns at a particular time).

Aroused implicit motives are associated with affective preferences leading to implicit behavioral impulses, and activated explicit motives are associated with cognitive preferences leading to explicit action tendencies. Discrepancies between implicit and explicit motives (at a distal level) may instigate competing affective and cognitive preferences (at a proximal level), causing intrapersonal conflict. Volitional regulation is needed to resolve these conflicts in favor of cognitive preferences and to compensate for insufficient motivational support. Figure 1 also illustrates the two-fold function of volition, namely to support need-discrepant explicit action tendencies (represented in Figure 1 as the section of the explicit motive circle not covered by the implicit motive circle), and to
suppress unwanted implicit impulses (the section of the implicit motive circle not covered by the explicit motive circle). Problem solving, in contrast, compensates for low perceived abilities and insufficient scripted behavioral routines.

Congruence between implicit and explicit motives (represented by the overlap of the implicit and the explicit motive circles in Figure 1) instigates compatible implicit behavioral impulses and explicit action tendencies, associated with intrinsic motivation and requiring no volitional support. The center of Figure 1 represents congruence of implicit motives, explicit motives, and perceived abilities, associated with flow experience as a special case of intrinsic motivation.

The “unique” (non-overlapping) sections of Figure 1 represent situations where two of the three structural components of motivation are lacking. Explicit action tendencies in the unique section of the explicit motive circle are not supported by affective preferences or perceived abilities. Hence, both problem solving and volitional regulation are required, decreasing the chance of successful accomplishment due to limited attentional capacity. Implicit behavioral impulses in the unique section of the implicit motive circle could be associated with intrinsic motivation, but are volitionally suppressed because they are inconsistent with cognitive preferences. Chances of fulfilling implicit motives that fall into this section are further decreased because they also require problem solving. Perceived abilities in the unique section of the perceived abilities circle of Figure 1 are not congruent with implicit or explicit motives and will hence not instigate behavior.

RELATIONS TO EXISTING APPROACHES TO WORK MOTIVATION

This section assesses the compensatory model in relation to existing knowledge of work motivation and volition, although space limitations preclude detailed reviews of existing approaches. The emphasis is on explaining the relation of the model to selected person-centered conceptions of work motivation.

Expectancy-Value Approaches

Expectancy-value approaches (Feather, 1982; Vroom, 1964; cf. Van Eerde & Thierry, 1996) seek to predict behavioral choices as a function of expectancy of behavioral success (perceived abilities) and subjective value of this success (explicit motive). The compensatory model extends this approach by considering implicit motives and conflict resulting from implicit/explicit motive discrepancies. Moreover, the compensatory model provides a proximal analysis of mechanisms that compensate for inadequate support from structural components. This is not included in expectancy-value approaches that are largely confined to distal level behavioral prognoses.
Goal Setting Theory

Goal setting theory does not differentiate between explicit goals (its primary object of interest) and implicit motives. Locke (2000) recently acknowledged this limitation. The compensatory model stresses this distinction and the necessity of distinguishing between explicit goals and explicit motives, because the latter may combine with perceived abilities to instigate the former. Furthermore, goal setting theorists disregard volitional resolution of intrapersonal conflict. When Locke and Kristof (1996) spoke of “volition”, they referred to Rand’s (1964) broad concept of volition, according to which attention must be voluntarily focused to permit goal setting and goal striving. This may include the narrower concept of volitional conflict resolution here, but Locke and Kristof (1996) did not explore this issue.

Bandura’s Self-Efficacy and Self-Regulation

Bandura acknowledged that motivation is only “partly rooted in cognitive activities” (1977: 193), but did not address non-cognitive determinants of motivation such as implicit motives. As a consequence, Bandura’s approach overemphasizes cognitive motivators, particularly self-efficacy (Bandura, 1977) and goals (Bandura, 1988). In contrast, the compensatory model indicates perceived abilities must combine with implicit and explicit motives to gain motivational significance, and low perceived abilities are not necessarily an obstacle to motivation.

Bandura’s (Bandura, Caprara, Barbaranelli, Pastorelli, & Regalia, 2001) concept of metacognitive self-regulation includes evaluating task demands and searching for alternatives (elements of problem solving in the compensatory model) and creating self-incentives and suppressing intrusive thoughts (elements of volitional regulation in the compensatory model). A basic principle of the compensatory model is that problem solving and volitional regulation must be clearly distinguished, as they fulfill distinct functions and employ different mechanisms. These differences are obscured in the construct of metacognitive self-regulation. By contrasting implicit and explicit motives (and perceived abilities), the compensatory model allows analyses that isolate causal antecedents leading to problem solving or volitional requirements.

McClelland’s Dual System Approach to Motivation

McClelland and collaborators (Koestner et al., 1991; McClelland et al., 1989; Weinberger & McClelland, 1990) examined differences between implicit and explicit motives and proposed that discrepancies lead to intrapersonal conflict. However, McClelland did not cross the Rubicon to incorporate volitional conflict resolution processes into his analysis. The compensatory model builds heavily on McClelland’s work but adds the functional analysis of volitional regulation and problem solving. Some dual system approaches to motivation include speculations about the relation between
motive discrepancies and volitional regulation (Brunstein et al., 1999; Emmons, 1999; Epstein, 1998; Ryan et al., 1996), but these links have not been systematically explored.

**Deci & Ryan’s Intrinsic and Extrinsic Motivation**

The compensatory model extends Deci and Ryan’s (2000) approach by including perceived abilities and problem solving, and it also differs from Deci and Ryan’s understanding of intrinsic motivation and regulation requirements. The compensatory model suggests that fulfillment of any implicit motive is associated with task enjoyment and intrinsic motivation, not just fulfillment of certain “fundamental” implicit motives or needs (cf., McClelland et al., 1953). Moreover, arousal of implicit motives is not assumed to per se lead to intrinsic motivation, but only if no incompatible cognitive preferences exist at the same time. Flipping the coin over, the present approach differs from Deci and Ryan’s in suggesting that even externally imposed goals can be intrinsically motivating if they are congruent with the person’s actually aroused motives. For example, speeding up an assembly line, probably experienced as externally regulated and alienating by most workers, may be stimulating for those high on implicit achievement motive. This challenges Deci and Ryan’s conclusion that “some goals are not integrateable” (2000: 248). Finally, and perhaps most importantly, the compensatory model expands Deci and Ryan’s approach by taking a closer look at functional processes that realize external regulation (i.e., volition).

**Rewards and Corruption of Intrinsic Motivation**

Lawler’s (1971; Lawler & Jenkins, 1992) approach to rewards is based on cognitive models of motivation (i.e., goal setting, expectancy-value, and equity approaches). Lawler and Jenkins’s notion that organizational rewards may attract and retain individuals is consistent with the compensatory model, as social incentives and rewards activate extrinsic motives (e.g., an explicit money-making motive; cf., Srivastava, Locke, & Bartol, 2001) known to be influential in determining choice behavior (e.g., job-choice). However, working behavior itself, particularly intrinsic work motivation, seems less influenced by rewards, particularly those unrelated to the task (like increased pay or time off work) (French, 1955). This suggests that rewards do not necessarily arouse implicit motives, in line with McClelland’s (1985) view. Rewards may produce inconsistencies between explicit and implicit motives and require volitional regulation. Employees may not have the necessary volitional resources, or not choose to use them, and absenteeism and withdrawal cognitions may result.

The compensatory model suggests a differential view of task-intrinsic incentives. An individual’s implicit motives determine the tasks he or she experiences as intrinsically motivating (cf., Winter, 1982). Nevertheless, the influence of implicit motives on behavior may disappear in the presence of powerful social constraints (McClelland et al., 1953). Hence, social incentives in general and
rewards in particular can reduce the variation of employee behavior. In sum, the compensatory model advocates including implicit motives and volitional regulation in theorizing on rewards.

The compensatory model also offers alternative explanations for inconsistencies in research findings on the corruption effect of extrinsic rewards (Deci, Koestner & Ryan, 1999). Summarizing the contradictory evidence, Kanfer wrote, “Extrinsic rewards may enhance, impair, or fail to affect task interest, enjoyment, and persistence” (1990: 92). The compensatory model leads to predict that extrinsic rewards only corrupt intrinsic motivation if they activate new goal representations (“I want a higher salary for my job…”), and deactivate the originally aroused implicit motives (“…and I can no longer enjoy my work without more pay”). If, however, extrinsic rewards do not deactivate motives, intrinsic motivation may be enhanced instead of corrupted. As suggested by Figure 1, the reward must be in the intersection of the two circles to avoid the corruption effect. For example, existing intrinsic work motivation will be enhanced, not impaired, if the extrinsic reward is to improve working conditions.

Kanfer and Collaborators’ Resource Allocation and Motivational Traits/Skills Analysis

Initially, Kanfer and Ackerman (1989) conceptualized self-regulation as problem solving, not volition. Recently, however, Kanfer (Kanfer, 1996; Kanfer & Ackerman, 1996; Kanfer & Heggestad, 1997) adopted Kuhl’s (1985) notion of volitional regulation into a motivational traits/skills analysis that has some parallels with the compensatory model. However, Kanfer restricted her analysis of motivational traits to explicit motives. Implicit motives and the important distinction between implicit and explicit motives were not included. In consequence, Kanfer’s approach is vague about situations that require volitional support and those that do not. For example, Kanfer and Heggestad suggest that fear motives require volitional support (particularly emotion control). In the compensatory model, activated fear motives only require volitional support if they lead to implicit behavioral impulses (“I am afraid of this job interview”) in conflict with explicit action tendencies (“I want this job”). No volition, in contrast, is needed if explicit action tendencies are avoidance-related (“I don’t like this company, and I do not want this job”). Thus, the compensatory model allows a deeper analysis of causal antecedents and functional properties of volitional regulation than Kanfer and Heggestad’s approach. The inclusion of perceived abilities and problem solving in the compensatory model allows comprehensive analyses of work motivation processes.

AGENDA FOR FUTURE RESEARCH

Research should be directed at developing valid, reliable, and economic instruments to explore the main constructs of the compensatory model, notably implicit motives and volitional regulation.
One of the main obstacles to widespread use of the TAT in motivation research is that it requires qualitative analysis of picture-stories. This raises reliability concerns (Entwisle, 1972), and absorbs considerable research resources. New instruments, such as the Multi-Motive-Grid (Sokolowski, Schmalt, Langens, & Puca, 2000) may help to overcome this limitation. There is also a mismatch between recent advancements in research on volitional regulation on the one hand and methodological stagnation on the other. The Volitional Components Inventory (VCI; Kuhl & Fuhrmann, 1998) is a first attempt to fill this gap (cf., Ryan, 1998). Nevertheless, the factorial structure of the VCI seems somewhat inconsistent (Kehr et al., 1999) and additional research is needed to improve the VCI and develop alternative instruments for volitional regulation. It is also worth examining whether affective preferences (“I really like this task.”) and cognitive preferences (“I consider this task important and I really want to do it.”) can serve as easily assessable proxy variables for implicit and explicit motives, respectively.

With respect to structural components of the compensatory model, additional research is necessary to determine how implicit motives, explicit motives, and perceived abilities relate in praxi and how they interact to determine performance. It is to be expected that these predictors have different relative weights and different interactive effects for different classes of behavior. Leisure-related behavior, for example, may be more strongly impaired by inadequate support from implicit motives than work-related behavior.

Differential research may test the proposition that some employees achieve higher congruence of implicit and explicit motives than others, perhaps because they have enhanced self-awareness for implicit motives due to improved skills in self-observation (McClelland et al., 1989) or because they use metamotivational strategies to align affective and cognitive preferences (Schultheiss & Brunstein, 1999). Further differential effects can be expected in terms of the degree to which employees take account of perceived abilities when setting goals. Employees giving much weight to perceived abilities may reject socially supported goals if ability perceptions are low. On the other hand, employees ignoring their perceived abilities may adopt unrealistic goals, resulting in failure.

With respect to functional processes of the model, additional research is needed to determine when problem solving and volitional regulation interact. Even if problem solving and volition are conceptionally distinct, there might be transition periods where extrapersonal difficulties surpass a certain threshold and problem solving becomes ineffective. This may erode motivational support and result in intrapersonal conflict requiring volitional regulation.

The most important task is to further explore the interrelations of motives and volitional processes. Replications of the finding that implicit/explicit motive discrepancies deplete volitional
resources (cf., Kehr, in press) are needed. Specifically, the Baumeister et al. (1998) paradigm could be adopted to determine whether employees with high discrepancies between implicit and explicit motives also have particular difficulties with single volitional acts (e.g., to strive for externally imposed goals or to withstand temptations).

Additional work is needed to develop more sophisticated conflict taxonomies. The compensatory model focuses on conflict between implicit and explicit motives, which dual system approaches view as the principle case of intrapersonal conflict (McClelland et al., 1989; cf., Brunstein et al., 1998). However, there may be additional conflicts among activated explicit motives (cf., Emmons et al., 1993) as well as among aroused implicit motives. This differentiation may relate to Lewin’s (1938) distinction of approach/approach, approach/avoidance, and avoidance/avoidance conflict, resulting in a multi-dimensional typology of intrapersonal conflict. Different classes of intrapersonal conflict may require different volitional regulation strategies. This suggests several interesting research questions, but conceptional work is previously necessary. It could also be examined whether different action phases (i.e., task choice and task fulfillment) and different classes of regulatory requirements (i.e., suppression or support) may require different volitional strategies.

Several propositions derived from the compensatory model await empirical support, particularly those that challenge existing approaches. To give some examples: The compensatory model indicates expectancy-value approaches (e.g., Feather, 1982; Vroom, 1964) do not predict behavior well if potential conflicts due to implicit/explicit motive discrepancies are disregarded. Likewise, the advice from Locke and Latham’s (1990) goal setting theory to set specific and challenging goals may be counterindicated if the goal is not supported by implicit motives and the volitional resources of the individual are low.

The compensatory model differs from Bandura’s (1977) view in predicting that perceived abilities must combine with motives to instigate action. Moreover, low perceived abilities are not necessarily an obstacle to action, as Ajzen’s (1991) approach might indicate, and high perceived abilities are no obstacle for flow experience, in opposition to Csikszentmihalyi’s (1975) suggestion. Another proposition requiring empirical substantiation is that extrinsic rewards corrupt intrinsic motivation only if they lead to a reconfiguration of the initial motivation structure. This may offer an explanation for inconsistencies in research findings regarding the corruption effect (Deci et al., 1999).

Finally, an intriguing task relates to the development of intervention methods. Baumeister et al. (1998) used the metaphor of a muscle for volitional regulation, indicating that volitional strength may be depleted but can also be built up by exercise. However, volitional strength does not
necessarily develop automatically, and systematic exercise and training may be supportive (Kehr & Von Rosenstiel, in press; Muraven, Baumeister, & Tice, 1999). Clearly, organizations need motivational intervention programs based on sound theoretical and empirical work that are thoroughly assessed.

CONCLUSION

The compensatory model of work motivation and volition coalesces three previously unrelated approaches to human motivation: dual system theories, theories on volition, and theories on perceived abilities. The basic notion of the compensatory model is that volitional regulation compensates for insufficient motivation due to implicit/explicit motive discrepancies. Volition is sharply contrasted with problem solving which compensates for insufficient perceived abilities.

Earlier theories on work motivation do not compete with the compensatory model, they rather complement it. However, the compensatory model extends these earlier approaches by (a) simultaneously examining implicit and explicit motives and perceived abilities; (b) accounting for individual differences; and (c) highlighting intrapersonal conflict and volitional conflict resolution. Not surprisingly, most propositions derived from the compensatory model still await empirical support. Hence, there is reason to believe that the compensatory model will provide fresh impulses for research on work motivation and its applications.

ENDNOTES

1 Using varying terminology, different research traditions have addressed the basic distinction of implicit versus explicit motive systems. Examples include Epstein’s (1998) distinction of an experiential system (the locus of McClelland’s implicit motives) and a rational system (the locus of McClelland’s explicit motives), Metcalfe and Mischel’s (1999) differentiation of a hot, emotional system and a cold, cognitive system, and the distinction of Bazerman et al. (1998) between want-selves and should-selves. Further parallels exist with desired versus actual values (Loewenstein, 1996) and delayed versus immediate choices (Read & van Leeuwen, 1998).

2 Maslow (1943) is an additional example for implicit motives falling prey to the cognitive revolution. Maslow originally proposed “a more central place for unconscious than for conscious motivations” (1943: 370). However, subsequent research on need satisfaction (Porter, 1961) and the need hierarchy theory (Wahba & Bridwell, 1976) used questionnaires to operationalize the need construct. Hence, this research relates to explicit rather than implicit motive systems.

3 In this perspective, it is important to distinguish between explicit motives and explicit goals, even if
both constructs have an important characteristic in common in that they both relate to cognitive (instead of affective) preferences. Explicit motives may combine with perceived abilities to instigate explicit goals, and should thus be considered a determinant, not a synonym, of explicit goals.

4 This sharp line is drawn for conceptual clarity of the present model. In reality, there may be overlap in the functions of volition and problem solving. For example, quitting smoking (an intrapersonal conflict) may be facilitated by hiding one’s cigarettes (a problem solving strategy). Kuhl (1985) labeled problem-solving directed at altering the external determinants of behavior to resolve intrapersonal conflicts environmental control, but suggested classifying this hybrid as a volitional strategy.

5 I owe this insight to an anonymous reviewer.

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FIGURE 1
Schematic Overview of the Compensatory Model of Work Motivation and Volition