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Introduction: A Developmental and Process-Oriented Approach to Motivation and Self-Regulation

Jutta Heckhausen and Carol S. Dweck

What Is the Approach Presented in This Volume?

In the past decade or two there has emerged an approach to the study of motivation that focuses on specific cognitive and affective mediators of behavior rather than more general traits or motives. This “social-cognitive” approach attempts to identify very specific psychological processes that, in interaction with situational cues, shape people’s actions. This approach grants motivation its own role in shaping cognition, emotion, and behavior, rather than reducing goal-directed behavior to cold-blooded information processing or to mere enactment of a personality type. As we will see, viewing motivation in these terms allows for an understanding of how motivational processes guide and organize patterns of cognition, emotion, and behavior. Thus, this social-cognitive approach leads us to investigate the dynamic interplay of psychological processes as people pursue their goals.

Historical Roots and Emergence of Process-Oriented Approaches to Motivation

Psychologists, as well as laypeople, have always been intrigued by dynamic theories of motivation. A telling example is the sustained fascination with Freud’s psychodynamic theory, although many would argue there is little empirical support for it. The process-oriented approach to motivation and self-regulation presented in this volume captures much of the richness of a dynamic approach and avoids many of the pitfalls of previous approaches.

Long before the current emphasis on social-cognitive mediators, scholars such as Kurt Lewin (1935, 1936) and Fritz Heider (1958a,b) developed rich models of motivated behavior, which integrated preference and affect as well as beliefs and inferences as determinants of individuals’ judgments and behavior (see also Mischel, 1973).

Lewin’s field theory of action (Lewin, 1935, 1936) explains behavior in

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terms of internal and external forces in the action field, which provide directionality to the individual's activity. Lewin's model of person and environmental forces spawned the expectancy x value models that have been immensely influential in motivational psychology ever since (see, e.g., Atkinson, 1957; Eccles, 1985; Eccles & Wigfield, 1995). In his classic book *The Psychology of Interpersonal Relations*, Heider (1958a) detailed the factors that can influence our inferences (or attributions) about the causes of people's behavior, and showed how the manner in which one interprets others' behavior will guide our reactions to it.

These seminal contributions not only gave us a blueprint for studying social-cognitive processes, but provided a way to conceptualize the manner in which the combination of personal characteristics and environmental conditions may affect behavior. Many current lines of psychology research in the United States and Europe owe much to these pioneers of motivational psychology. Among those are achievement motivation research (Atkinson, 1964; H. Heckhausen, 1967; McClelland, 1953, 1976), action theory (H. Heckhausen, 1991; Kuhl, 1987), the psychology of causal attribution and perceived control (Bandura, 1977; Rotter, 1966; Watson, 1966; Weiner, 1972; Weiner & Kukla, 1970), and the psychology of personal causation and intrinsic motivation (Csikszentmihalyi, 1975; DeCharms, 1968; Deci, 1975; Deci & Ryan, 1985). In these different lines of scholarship, process-oriented approaches to motivation began to flourish.

Achievement motivation research integrated the psychology of individual motives and situational affordances into an expectancy x value model of goal setting in achievement behavior (Atkinson, 1964; H. Heckhausen, 1967). According to this theory, the motivational and emotional forces that direct achievement behavior are determined by the expectancy of success and failure and the value attached to positive and negative outcomes. Expectancy and value in turn are influenced not only by situational conditions (e.g., task difficulty, desirability of the goal) but also by the individual's preferences and risk perceptions.

Out of achievement motivation research grew a renewed interest in the "other side of motivation," namely, volition or action theory (H. Heckhausen, 1991; H. Heckhausen & Gollwitzer, 1987; H. Heckhausen & Kuhl, 1985; Kuhl, 1984, 1985; Kuhl & Beckmann, 1985). A unified theory of action integrates the motivational phenomena of both goal selection and goal setting, with volitional phenomena of goal pursuit in terms of action initiation and action control. This recent line of research has led to the identification and functional analyses of specific processes involved in action implementation, self-regulation (see Kuhl & Fuhrmann, Chapter 1, this

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volume), and compensatory goal pursuit via symbolic self-completion (see Gollwitzer & Kirchhoff (Chapter 15, this volume).

A related line of action-theoretical research focuses on the selection and pursuit of developmental goals throughout the human life span (Brandstädter, 1998, Brandstädter, Rothermund, & Dillmann, Chapter 14, this volume; J. Heckhausen, 1998, J. Heckhausen & Schulz, 1995, and Chapter 2, this volume). This approach integrates theoretical conceptions from motivation psychology with life-span developmental research, and investigates the “life course” of developmental goals across life-span transitions that involve improved or impoverished opportunities for goal attainment. Key questions in developmental action theory are: How do individuals adapt their developmental goals to the changing opportunities and constraints at different age levels? Which processes promote persistent pursuit or disengagement from developmental goals?

The emergence of this European approach coincides with a revival of interest in goal-directed behavior in the United States (Cantor & Kihlstrom, 1987; Cantor & Sanderson, Chapter 7, this volume; Dweck & Leggett, 1988; Emmons, 1986; Klinger, 1977; Little, 1989; Markus & Ruvolo, 1989; Pervin, 1983). Many now saw goals as being at the heart of motivation and as its defining feature. People’s goals were what drove, guided, and organized their behavior, as well as their cognition and affect. Indeed, cognition, affect, and behavior could now be seen as a coherently related set of variables, a set of processes that interacted as people pursued valued ends.

The study of causal attributions for success and failure was another important paradigm (Kruglanski, 1975; Weiner, 1972). Weiner, who had been trained in the tradition of achievement motivation, proposed that motivational phenomena (persistence, for example) could be analyzed more precisely and fruitfully by examining people’s causal attributions for their successes and failures, that is, their explanations for why they succeeded or failed. He and his colleagues (e.g., Weiner & Kukla, 1970) then showed how different attributions lead to different expectancies for future success and different levels of persistence. This research demonstrates how personal characteristics and environmental cues could both influence behavior, through common mechanisms. That is, not only do clear individual differences exist among people in their tendencies to make certain attributions, but also attributions can be situationally induced (see Dweck, 1975; Graham, Chapter 5, this volume).

A related research tradition stemmed from Rotter’s (1966) seminal work on how people’s motivation and behavior are influenced by their perceptions of control over their environment and over the outcomes that befall

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them. Researchers (Langer & Rodin, 1978; Watson, 1966; Weiss, 1970; Weisz & Stipek, 1982) took this concept of perceived control and demonstrated compellingly how it could be experimentally induced and what powerful effects it could have on the most important aspects of functioning (see also research on “self-efficacy,” Bandura, 1977, 1982). Other researchers formulated a more differentiated model of control-related beliefs, using a more elaborate scheme to investigate age-related differences in control-related beliefs and their relation to intellectual and social outcomes (see Skinner, 1995; Skinner, Chapman, & Baltes, 1988; Little, Chapter 11, this volume). Integrating the ideas of attributional psychology, the study of perceived control, and Kelly’s (1955) “psychology of personal constructs” with a developmental perspective, Dweck and her colleagues (Dweck, 1975, and Chapter 10, this volume; Dweck & Leggett, 1988) demonstrated how conceptions about intelligence and ability in general develop into persistent theories that either empower the individual or render him or her vulnerable to situational pressures.

Another research tradition focuses on self-determination and autonomy in goal selection and pursuit as a critical condition for motivation, success, and pleasure (DeCharms, 1968; Deci, 1975; Deci & Ryan, 1985; Ryan, Chapter 4, this volume). Social coercion and external control in general are detrimental to motivation, performance, and enjoyment of activities (see also Pomerantz & Ruble, Chapter 6, this volume). In addition, this approach views activity-irrelevant positive consequences of action (e.g., concrete rewards) as potentially detrimental to intrinsic motivation and thus performance (Deci, 1975; Deci & Ryan, 1985; Lepper, Greene, & Nisbett, 1973). A related line of research focuses on the experience of “flow” in self-determined and challenging activities, which leads to optimal performances and highly positive affect (Csikszentmihalyi, 1975; Csikszentmihalyi & Rathunde, 1993).

Merits of the Motivational Approach

A motivational theory emphasizing process and built around goals has many advantages. First, this approach allows us to understand the way in which cognitive and affective factors work together to produce motivational patterns. That is, viewing behavior as goal-directed leads us to think more about how cognition and affect come together in action. In this way, goal-focused approaches to human behavior are prototypical examples of integrated and process-oriented approaches that link motivation, affect, and cognition to their behavioral correlates and consequences.

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Second, this approach encourages us to identify the specific variables (such as beliefs, values, and strategies) that are important in motivation and that play critical roles in people's pursuit of their goals. Models of perceived control, for example, show how control beliefs affect goal-directed behavior and its outcomes.

Third, process-oriented approaches illuminate the role of these factors in dysfunctional patterns of behavior. For example, much of the work in this volume clearly illustrates how certain self-theories, self-regulatory strategies, attributional biases, or goal selection biases can set up maladaptive behavior.

Fourth, this approach helps us to understand how motivational or self-regulatory variables can form the basis of rather stable individual differences but can also be dynamic and context-sensitive. Even in the presence of strong individual differences, motivational variables can show dynamic and context-sensitive variation.

A Life-Span Developmental Perspective on Mediating Processes

This book adds a developmental perspective to this process-oriented approach. As these chapters demonstrate, a process-oriented approach enriches any developmental analysis; however, a developmental perspective also greatly enriches any process-oriented approach to motivation.

A life-span developmental perspective (Baltes, 1987; Baltes, Lindenberger, & Staudinger, 1998) adds the insight that different processes follow different life-span trajectories. Indeed, by charting the origins and the developmental course of motivational processes, this approach helps us to identify the critical elements of motivational systems and to understand their interrelations. In addition, the life-span perspective highlights context-driven variations in psychological processes, such as those resulting from different historical periods, different cultures, and different periods of life. It brings with it the optimistic conception of great intraindividual plasticity in behavior and psychological functioning, while acknowledging the constraints that may accompany different developmental periods and different contexts in which development takes place. Moreover, the life-span perspective brings to the foreground the idea that stable individual differences can be highly sensitive to contextual variation. Several of the chapters in this volume show that as important motivational and self-regulatory processes develop with age, they can be transformed by the age-related issues and experiences the individual confronts.

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Finally, the life-span perspective gives us unique insight into the development of adaptive and maladaptive motivational patterns. First, it allows us to study and conceptualize in precise terms how patterns that develop early in life provide important resources and constraints for development later on. Second, by highlighting the processes involved in adaptive motivational patterns at different points in development and by identifying the contexts that promote adaptive patterns at different points in development, this approach promises to generate interventions that are uniquely suited to a person's developmental phase and context.

This developmental perspective is represented in the present volume in several ways. Chapters 2, 3, 5, 6, 8, 10, and 12 describe research on the developmental origins and trajectories of specific motivational or self-regulatory processes, with some also addressing how dysfunctional patterns may persist over development periods (Dweck; Graham; Heckhausen & Schulz; Higgins & Loeb; Pomerantz & Ruble; Skinner; Weisz). Chapters 4, 5, 8, 9, 12, and 16 go a step further and consider potential intervention strategies to prevent the emergence of maladaptive patterns or to break their influence on subsequent development (Graham; Nolen-Hoeksema; Ryan; Schulz; Skinner; Weisz). In addition, many of the chapters describe research on the impact of variations in context, including variations owing to age-related developmental tasks (Chapters 2, 7, 10, 13, and 14, by Brandtstädter, Rothermund, & Dillmann; Cantor & Sanderson; Carstensen; Dweck; Heckhausen & Schulz, respectively), situational challenges to self-identity (Chapter 15, by Gollwitzer & Kirchhoff) or ethnic or cultural setting (Chapters 5 and 11, by Graham and Little, respectively).

In summary, a developmental perspective – and a life-span perspective in particular – gives us the means to address important and interesting questions in future research. This perspective leads us to investigate the potential for and limits of plasticity in the psychological processes involved in motivation and self-regulation. To what extent are maladaptive patterns relatively entrenched after childhood and adolescence, and to what extent can they be influenced by developmentally appropriate and context-appropriate interventions? It also leads us to examine the “age-relativity” of adaptive processes. What is adaptive at one segment of the life span may be maladaptive at another. In fact, the developmental literature provides excellent examples of how the full-blown expression of certain patterns (such as stranger anxiety and intense mother–child attachment) is entirely normal and perhaps even necessary at certain points in development, but clearly not at others. Yet, there may well be more general underlying processes that we can identify as adaptive or maladaptive across developmental periods. The

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challenge is both to pinpoint adaptive and maladaptive patterns at each point in the life span and to search for general “laws” of adaptive and maladaptive functioning. We hope this volume represents a step toward those goals.

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