Psychological Needs and the Facilitation of Integrative Processes

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ABSTRACT The assumption that there are innate *integrative* or *actualizing tendencies* underlying personality and social development is reexamined. Rather than viewing such processes as either nonexistent or as automatic, I argue that they are dynamic and dependent upon social-contextual supports pertaining to basic human *psychological needs*. To develop this viewpoint, I conceptually link the notion of integrative tendencies to specific developmental processes, namely intrinsic motivation; internalization; and emotional integration. These processes are then shown to be facilitated by conditions that fulfill psychological needs for autonomy, competence, and relatedness, and forestalled within contexts that frustrate these needs. Interactions between psychological needs and contextual supports account, in part, for the domain and situational specificity of motivation, experience, and relative integration. The meaning of psychological needs (vs. wants) is directly considered, as are the relations between concepts of integration and autonomy and those of independence, individualism, efficacy, and cognitive models of "multiple selves."

Historically, many psychological theorists have assumed that the psyche contains its own natural or inherent principles that promote growth, integration, and the resolution of psychological inconsistencies and conflicts. These principles have been described by many constructs, including the *synthetic function* of the ego (Freud, 1923/1962; Nunberg, 1931); *individuation* (Jung, 1951/1959); the *actualizing tendency*

Preparation of this article was aided in part by a grant from the National Institute of Child Health and Human Development (HD19914) to the Human Motivation Program, Department of Psychology, University of Rochester. Address correspondence to Richard M. Ryan, Department of Psychology, River Campus, University of Rochester, Rochester, NY 14627.

Journal of Personality 63:3, September 1995. CCC 0022-3506/95/$1.50

(Maslow, 1954; Rogers, 1963); *organization* (Piaget, 1971); and the *orthogenetic principle* (Werner, 1948). Although theories containing such constructs differ greatly in details and tenor, they share the assumption that innate tendencies toward assimilation and integration play a critical role in social development.

This broad assumption of innate growth tendencies has also been influential within applied disciplines as diverse as psychotherapy (Rogers, 1961; Schafer, 1983); education (Dewey, 1938; Montessori, 1917/1964); parenting (Dreikurs, 1958; Ginott, 1961); and work (McGregor, 1960; Walton, 1985). In many of these domains the assumption of inherent tendencies to actively learn, grow, and integrate has led to the belief that practitioners mainly need to provide facilitating conditions for such tendencies to express themselves, rather than attempt to direct or control outcomes or behavior through exogenous means alone.

Despite the prominence of such theories and their applications, the basic axiom that there are natural tendencies toward differentiation and integration in psychological functioning has as many skeptics as adherents. Skeptics range from behaviorists (Skinner, 1953), who dismiss the idea of inner organization in general, to sociologists who view integration theories as individualistic (Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985) and/or ideologically driven (Dannefer, 1984). Supporting every critic is the evidential argument that inconsistency and fractionization better characterize human experience in many settings than unity or integrity (Broughton, 1988; Greenwald, 1982). Finally, even authors predisposed to integration-related constructs have argued that abstract formulations of synthetic or actualizing principles have in many ways obscured the dynamics of motivation and agency that underlie their operation (e.g., Blasi, 1976; Kaplan, 1983; Ryan, 1991; Vandenberg, 1991).

It is also noteworthy that recent cognitive approaches to personality tend to peripheralize the phenomenon of integrative processes and the idea of an overarching synthetic tendency. Indeed, a growing number of paradigms view personality not as a self-unifying system, but rather as a collection of selves that operate independently in different contexts (e.g., Greenwald, 1982; Higgins, 1987; Markus & Nurius, 1986). Many cognitive models thus conceptualize personality as something of a "handbag," a portable repository for various identity schemas that are cued up by differing social contexts. Concerns with the nature of growth or the importance of systemic integration seem starkly absent in such theories.

The practical importance of the questions surrounding this central theoretical axiom is manifold. Insofar as one believes that nature supplies us with an integrative thrust to exercise our competencies, assimilate new experiences, and unify our understandings and behavior into a coherent agency, then psychological interventions will tend to take the forms of facilitating, conducing, supporting, or nurturing such tendencies. Alternatively, if one doubts the existence or robustness of spontaneous integrative trends in the psyche, then interventions will more likely be oriented toward training, shaping, directing, programming, and controlling. Not only is our interpretive language of change affected, but the very nature of social practice.

In this article I reexamine the assumption of inherent integrative processes in development and behavior. Rather than assuming that the organismic tendencies to assimilate and integrate new experiences and behavioral regulations operate invariantly or automatically, I will conceptualize them as dynamic processes that vary in robustness within differing social contexts. Specifically, I propose that integrative processes are highly dependent upon contextual supports for basic psychological needs. Insofar as the nutriments relevant to psychological needs vary across contexts or domains, so too will the relative strength of integrative propensities, and one's experience of integrity and autonomy in functioning. Contexts where psychological needs are neglected or frustrated promote fragmentation and alienation, rather than integration and congruence.

Integration and Organismic Theorizing in Biology and Psychology

The concept of inherent organizational or integrative tendencies in living systems is neither unique nor original to psychology. As a number of authors have pointed out (e.g., Jacob, 1973; Laszlo, 1987; Mayr, 1982), many biologists have come to acknowledge the overarching negentropic characteristics of living systems to extend themselves, while at the same time preserving their overall integrity, as a paradigmatic framework for the field, a paradigm often referred to as *organismic*.

A host of theorists have described the central tenets of organismic thinking in biology (Augros & Stanciu, 1987; Jacob, 1973; Jonas, 1966). These tenets are meant to subsume the problems of the organism's active nature, its tendency toward reproduction, growth, self-

regulation, and agency. First among these tenets is that organisms are systems, in which the functioning of parts must be understood in terms of the whole. Furthermore, organismic functioning displays what Polanyi (1958) described as "a significant orderliness," a coordination or harmony. The individual organism is thus distinguished as a "center" of regulation and action, which, according to Polanyi, is a logical novelty. As an aspect of this orderly regulation, organisms appear to have aims, purposes, or "needs" that their behavior and component parts function to serve (Rosenberg, 1985). Finally, organismic development entails both increasing complexification and integration that serves to maintain the overall system. The directionality and coherence of animate systems differentiate them from inanimate phenomena which always are "done to" rather than actively "doing" (Bartley, 1987). Indeed, biological theorizing suggests that a major thrust of the organizational propensity of animate life is away from heteronomous regulation, or being done to, and toward autonomous functioning or self-regulation.

Within psychology, cognitive developmentalists have most explicitly embraced the organismic paradigm (Overton & Horowitz, 1991). Piaget (1971), for example, assumes that the organizational tendencies observed in biology extend to cognitive development. He postulated an *organization schema* that encompasses assimilation and integration, the latter taking the form of ongoing reciprocal assimilation between schemas, such that there tends to be an internal consistency and equilibration among varied functions and structures. Similarly, Werner (1948) postulated an *orthogenetic principle* of differentiation and hierarchic integration in development. Loevinger (1976) applied a structural approach to personality development, characterizing *ego development* in terms of increasing mastery and synthesis.

As noted previously, several historically significant theories of personality have also implicitly or explicitly assumed that psychological systems inherently possess organizing tendencies or functions that both "explain" the activity of elaborative change and ensure a degree of unity or integration in functioning. Freud (1923/1962) posited that the ego is, first and foremost, an organization, whose essential function is synthesis. Indeed, for Freud, the tendency toward unity is a primary feature of Eros, the central drive of life. In a quite different theoretical context, Rogers (1963) argued that living things have one central motive—actualization—that entails the ongoing expression and integration of one's potentialities. He argued, after Goldstein (1939) and von Bertalanffy (1968), that the "behaviors of an organism can be counted on to be in the direction of maintaining, enhancing and reproducing itself. This is the very nature of the process we call life" (p. 3). These and other representatives of the organismic viewpoint are listed in Table 1, along with some of the constructs relevant to their organizational assumptions.

Table 1
Selected Theories in Psychology Involving Organization Principles

Theory	Principle	Processes
Cognitive development		
Werner	Orthogenetic principle	Differentiation, hierarchical integration
Piaget	Organization	Assimilation, accommodation, reciprocal assimilation
Loevinger	Ego development	Synthesis, mastery
Personality development		
Psychoanalytic ego psychology (Freud, Nunberg, Hartmann, White)	Ego as organization	Synthetic function, insight
Analytical psychology (Jung)	Individuation	Self-archetype, transcendent function, consciousness
Humanistic psychology (Rogers, Maslow, Goldstein, others)	Actualization tendency	Organismic actualization, self-actualization, awareness
Holistic psychology (Angyal)	Actualization	Autonomy, homonomy

The integration concept within organismically oriented personality theories has had a widespread influence on clinical practice. Part of the evidential appeal of integration theories within clinical settings derives from the seemingly inherent need of patients to resolve inconsistencies and assimilate difficult experiences when these are raised within supportive settings, a "fact" acknowledged in virtually every psycho-

logically based treatment approach. The orientation of many practitioners is accordingly founded upon the tenet that a therapist can create an interpersonal climate that catalyzes the operation of these inherent synthetic, actualizing, or integrative functions (e.g., Rogers, 1961; Schafer, 1983). The therapist's job is thus not to create a drive to integrate, but rather to facilitate the integration tendency already presumed to exist within the client. Similarly, the belief in innate tendencies to differentiate and integrate experience and knowledge has given impetus to a number of progressive educational approaches that assume that educators should act more as facilitators than directors of learning (Dewey, 1938; Montessori, 1964; Raffini, 1993; Rogers, 1969).

Yet despite their apparent influence on theory and practice, the acceptance of organismic principles, and specifically the idea of integrative tendencies, is still controversial. For decades the most salient opposition to organismic theories was provided by behaviorism, which assumes no internal organizational tendencies. Skinner (1953) explicitly argued that any apparent "inner" organization of behavior was attributable not to natural tendencies toward coordinating and integrating but to organized contingencies in the environment. Social-cognitive approaches (e.g., Bandura, 1989; Locke & Latham, 1990) similarly emphasize the influence of external reinforcements on cognition and behavior and the perceptions of efficacy that mediate them. Although cognitive theorists often state that organisms are "active," they are not referring to the principles of self-organization integral to organismic theories. Indeed, what makes organisms active in cognitive approaches remains theoretically unspecified.

In a quite different vein, integration concepts have been questioned by those who cite the obvious lack of unity that pervades so much of human functioning. Broughton (1988), for example, highlights the extensive manifestations of chaotic, entropic, and disruptive forces in the psyche, as well as the adaptive and creative concomitants of seemingly "disorganized" states of mind, in contrast to the notion of a self-unifying structure. Greenwald (1982) prefers to conceptualize personality as a nonunitary entity, made up of more or less boundaried operating systems. He justifies this approach on the basis of the evident inconsistencies, ego diffusions, and conflicts among identities experienced by individuals. Gergen (1991) views the metaphor of a core or "true" self, and the supposed integration that subserves it, as outmoded. His postmodern perspective views individual psyches as saturated and fragmented by the overwhelming diversity of identities stimulated within us by modern

culture. Finally, Dannefer (1984) views organismic theories of self-development and agency as merely ideological precipitates, whereas identities and needs are, in his view, socially determined. Sociocultural approaches thus bring us back full circle to a nonnaturalism as extreme as that in behaviorism, insofar as psychological coherence and integrity are attributed wholly to a function of external influences rather than organismic nature.

A dialectical view that involves acceptance of natural integrative tendencies and yet acknowledges the power of social contexts to fragment or "overchallenge" them stands as an alternative to the approaches mentioned above (Deci & Ryan, 1991). This view accepts that humans are products of organic evolution, and accordingly are endowed with propensities to differentiate and integrate the regulation of their functioning as an extension of their basic biological forms (Maturana & Varela, 1992; Piaget, 1971). Yet, as living systems, persons are also embedded within conditions or environments that can be either aliment to or enemies of assimilation and integration and the products of them. Conditions that disrupt integrative tendencies can conduce to fragmented functioning, and thus represent disorganizing influences on self-regulation. Alternatively, social contexts can facilitate and nurture integration both within and across domains. This alternative view thus disputes neither the evidence of dividedness and fragmentation in human functioning nor the existence of a tendency toward unity. Rather, it suggests that integrative processes are ongoing and dynamic, and thus subject to influence by social contexts that can either support or inhibit their expression.

Connecting Integrative Tendencies with Behavior

Specific types of motivational processes represent different manifestations of an overarching tendency to differentiate, integrate, and actualize oneself. Three of these, which I shall review in turn, are intrinsic motivation, internalization, and emotional integration.

Intrinsic motivation. The most significant behavioral phenomenon that bespeaks the active tendencies within the organism toward increased differentiation and synthesis is that of intrinsically motivated behaviors (IMBs). This class of behaviors was "discovered" in the 1950s when a number of animal researchers puzzled over the fact that certain types

of behavior were spontaneous and did not appear by any reasonable account to be a function of visceral drives or external reinforcement (Hunt, 1963; White, 1959). The very existence of IMBs, (e.g., the curious exploration of novel objects) suggested that organisms innately strive to exercise, expand, and coordinate their knowledge and experience by seeking out challenges in their environments (Elkind, 1971).

Studies of IMBs in animals and humans subsequently revealed not only that such behaviors are not a function of external controls or reinforcements, but that attempting to control or reward IMBs can have a disruptive or "undermining" influence on them (Deci, 1975; Ryan, Mims, & Koestner, 1983). This led to increased study of conditions under which IMBs flourish, versus those where they are inhibited or forestalled.

At this point some general principles concerning the facilitation versus undermining of IMBs have become clear: Numerous studies have shown that IMBs are most likely to occur under conditions that support *perceived competence*, such as optimal challenges and positive feedback, and those that facilitate *perceived autonomy*, such as opportunities for choice and an absence of salient external controls and rewards (see Deci & Ryan, 1985b; Koestner & McClelland, 1990, for reviews). Furthermore, the developmental literature suggests that at least for young mammals, IMBs flourish only when there is a background of secure attachment or *relatedness* to caregivers (Ryan, 1991, 1993). This fact was underscored by Bowlby (1988), who described the dynamic balance between attachment and exploration, in which secure attachments facilitate active exploration and interest in one's environment.

Insofar as IMBs are an expression of an individual's innate organismic propensity to assimilate, synthesize, and actualize its functioning, this class of behaviors may provide significant clues as to the dynamics of integrative tendencies more generally. The plethora of research indicating that conditions which support autonomy, competence, and relatedness facilitate IMBs (whereas excessive controls, overwhelming challenges, and relational insecurities debilitate them) provides a starting point for understanding the processes through which a generalized growth tendency may be shunted toward specific domains and deflected away from others.

Furthermore, IMBs represent a paradigmatic instance of integrated behavioral regulation, being invariantly fully self-regulated (rather than heteronomous) and involving the dedicated engagement of the whole

organism. The phenomenology of intrinsically motivated actions suggests that they are experienced as autonomous and unconflicted expressions of the self (Ryan, 1993) and they invariantly are accompanied by an internal perceived locus of causality (deCharms, 1968; Deci & Ryan, 1985b). This suggests a potentially important connection between the structural concept of integration and the experiential concept of autonomy.

Internalization. Much of human behavior is not intrinsically motivated. Indeed, perhaps the lion's share of social development concerns the assimilation of culturally transmitted behavioral regulations and valuations that are neither spontaneous nor inherently satisfying. Learning to work rather than play, to follow social laws and rules, and to engage in practices of civil behavior often falls far short of being intrinsically motivating. Yet, the acquisition of such behaviors is crucial to socialization and to the integration of the individual within a larger culture.

This acquisition process, when viewed from the standpoint of the individual, is typically described as *internalization* (Collins, 1977; Meissner, 1981; Ryan & Stiller, 1991). Internalization represents the active assimilation of behavioral regulations that are originally alien or external to the self. To the degree that internalization is accomplished, then the individual moves away from heteronomy toward autonomy, or from external to self-regulation, a fact highlighted in virtually every organismic approach. In attributional terms, increasing internalization and integration of behavioral regulation represent a transition from an external perceived locus of causality to an internal perceived locus of causality (Deci & Ryan, 1985b). That which was foreign is organized into one's self. Many theorists emphasize the active, constructive nature of the internalization process, as well as its tendency to be influenced by social contexts (e.g., Deci & Ryan, 1985b; Lepper, 1983; Loevinger, 1976; Schafer, 1968).

Any intentional behavior can be classified in terms of the degree to which it is self-regulated versus regulated by forces outside the self, thus indexing the relative integration of action. A general schema for this is presented in Figure 1. This figure illustrates four types of motivational orientations that can be applied to extrinsically motivated (instrumental) behaviors, and leaves a separate category for intrinsically motivated actions which, although clearly self-regulated, do not have to be internalized. While the labels used for these types of motives may be idiosyncratic, the types of motivation to which they refer are identifiable

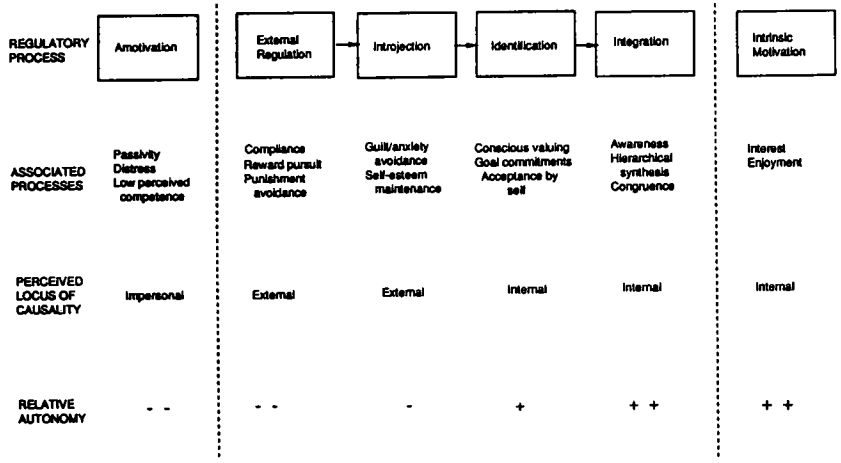

Figure 1
Schematic of Regulatory Styles

in other theoretical frameworks under different labels (e.g., Collins, 1977; Kelman, 1958; Schafer, 1968), and also are readily observable in everyday behavior.

The most heteronomous form of regulation is *external regulation*, wherein people perform behavior only because they are either coerced into it, or rewarded for it. Here the regulatory impetus to behavior is external in the classic sense of being literally outside the person. When individuals experience their behavior to be externally regulated, they typically feel controlled or alienated, such that when the external regulatory force is absent, so is the behavioral regulation. *Introjection* represents behavior driven by the dynamics of self- and other approval. Behavior regulated through introjection is characterized by "internally controlling states" (Deci & Ryan, 1985b; Ryan, 1982) and the guilt and anxiety avoidance that accompany them. Thus, while introjection represents a motivational impetus that is internal to the person (i.e., is intrapsychic), it nonetheless remains conflictual and external to the self. Introjection therefore can be understood as a form of partial assimilation or integration. A somewhat more autonomous form of regulation is entailed in *identification*, which involves the acceptance and personal valuing of an acquired regulation. Identification entails greater autonomy insofar as one's behavior is felt to reflect one's conscious values and identity. Because of this the pressure and conflict associated with introjection or external control is somewhat ameliorated. However, despite their relative autonomy, identifications can be more or less isolated or unintegrated with other identifications, introjects, or aspects of personal experience. The ultimate form of "assimilation to self" is that of *integration*, in which various identifications are organized, or reciprocally assimilated (Piaget, 1952), and brought into congruence with organismic experience as a whole. This crucial transformation completes a process of movement from heteronomy to autonomy or self-regulation.

Figure 1 represents *intrinsic motivation* as a separate category, which, as noted, pertains to behaviors that are done for their inherent satisfactions and thus are not a product of internalization. IMBs reflect a relatively conflict-free and volitional expression of the self, and have an internal perceived locus of causality (deCharms, 1968). Being a prototype of autonomous regulation, intrinsic motivation is placed on the far right side of the continuum to represent a marker against which internalized regulations can be compared in terms of their degree of autonomy.

This schema also includes *amotivation* (impersonal causality) as a regulatory style, which represents the most impoverished state of integration and autonomy in behavioral regulation (Deci & Ryan, 1985b, 1987). Heider (1958) referred to impersonally caused behaviors and outcomes as those that are not intentional and not under personal control. People are amotivated when they do not see action as either (*a*) reliably connected with outcomes (as in helplessness) or (*b*) viable given perceived incompetence or lack of environmental supports. When amotivated a person feels neither competent nor autonomous with regard to acting. Because amotivation represents a noninternalization of regulation, it, like intrinsic motivation, is presented as a separate category in Figure 1.

Contemporary research on human motivation has primarily focused on the differences between motivation and amotivation—where there are big and obvious "main effects" of contingency, control, and competence variables. Indeed, no extant theories of motivation appear to disagree with the significance of perceived competence or efficacy in behavioral regulation, dating back to White (1959), Heider (1958), Tolman (1932), and other motivational pioneers. However, an exclusive focus on issues related to competence or efficacy does not address the issue of the relative integration (and therefore autonomy) of behavioral regulations. For example, self-efficacy theory (Bandura, 1989), which some (e.g., Locke & Latham, 1990) consider to be the dominant

paradigm in the landscape of motivational psychology today, is wholly occupied with the "can" versus "can't" issue, and not only ignores but denigrates as a pseudo-issue the problem of autonomy versus heteronomy in individual behavior and experience (see Bandura, 1989). My point is that there are also significant functional effects related to the degree to which one's actions and goals are integrated to the self and thus experienced as autonomous and as congruent with other needs and values. All forms of regulation represented in Figure 1, except amotivation, require perceived efficacy, so the continuum goes beyond mere considerations of efficacy to a differentiated consideration of regulatory styles.

The various types of regulation represented in Figure 1 reflect variations in the *orientation* of motivation but not necessarily its *level* or amount (Deci & Ryan, 1985b; Ryan & Connell, 1989). People acting through introjected regulation can be just as energized and effortful in their motivation as those whose motivation is based on identification. However, the functional effects on experience, performance, and self-related affects will differ considerably in these two cases. Generally, behaviors that are a function of outer forces, poorly assimilated introjects, or isolated identifications are experienced as less self-determined, and performance of such activities typically betrays the lack of coordinated engagement of the organism. Thus, even when motivation and efficacy are high, less autonomous regulation typically results in behavior that is less stable, persistent, well-performed, and subjectively enjoyable (Deci & Ryan, 1987, 1991).

Ryan and Connell (1989) tested the hypothesis that these various categories of motives are related along a continuum of integration and autonomy. Using a self-report approach, they asked participants to endorse various reasons for performing actions in two domains—school achievement and prosocial behavior. Insofar as reason categories represented a continuum of autonomous regulation, Ryan and Connell argued that they should display a quasi-simplex (Guttman, 1954) pattern of correlations. A simplex refers to an ordered continuum of correlations such that conceptually closer categories are more highly related than conceptually more distant ones. Their analyses confirmed this pattern, as have those of other investigators in a variety of other domains such as intimacy (Blais, Sabourin, Boucher, & Vallerand, 1990), sports and leisure (Pelletier, Vallerand, Blais, & Briere, 1990), religion (O'Connor & Vallerand, 1990), and health care (Williams, Deci, & Ryan, 1994).

Emotional integration. A third process related to self-organization concerns the integration of regulation with respect to pressures, impulses, and desires to act that come from what Greenspan (1979) once labeled one's *internal boundary*, that is, from within the organism. This process of coming to acknowledge, represent, and choicefully regulate action in the context of emotions, drives, and pressing needs is termed *emotional integration* (Ryan, Deci, & Grolnick, in press).

Even though behaviors prompted by drives, impulses, and strong feelings emerge from "within" the organism, theoretically and phenomenologically they are not necessarily experienced as self-caused and thus do not invariantly have an internal perceived locus of causality. Indeed, individuals often feel "overcome" with an emotion or "driven" to an impulsive act, conveying how drives, desires, and affects are often felt to befall or impinge on the self (Pervin, 1991). Inner presses to act thus can be construed as lying along a continuum from impersonal to internal locus of causality. In this sense, emotional integration is a subtype of the problem of internalization—because people have to learn to manage the expression of drives and affects as well as conflicts between them, and do so in more or less integrated ways. Again this raises the question of what conditions, in general and in specific situations, facilitate versus undermine emotional self-regulation.

A synthetic view of integration in behavior. This view proposes that people are intrinsically motivated to extend themselves into the world and to integrate what they experience—but they typically show this attribute only when afforded supports for autonomy, competence, and relatedness. People also inherently prefer to be the "origin" (deCharms, 1968) of their own behavior, as opposed to being regulated by forces outside of the self. This preference is manifest in the processes of internalization and emotional integration, in which external and internal presses to action are actively transformed into self-regulations. However, these latter processes, like those entailed in intrinsic motivation, are also heavily influenced by the nature of contextual supports relating to autonomy, relatedness, and competence.

Psychological Needs and Integration

I have suggested that there are specifiable nutriments that facilitate the proactive, integration-relevant processes of intrinsic motivation, inter-

nalization, and emotional integration. This formulation derives from the controversial idea that there may be some basic psychological needs essential to motivation and growth in any domain (Deci & Ryan, 1985b; Ryan, 1993).

The concept of needs has typically been employed in two distinct ways. In perhaps its most common usage, need is equated with virtually any motivating force, including one's desires, goals, wants, or values—whether these are implicit or self-attributed (McClelland, Koestner, & Weinberger, 1992). Murray's (1938) list of needs is based on such an expansive definition. Similarly, the term need is colloquially used in this loose manner, in phrases such as "I need more money" or "I need a drink." My daughters often use this loose meaning of need when they tell me that they "need" a new toy or a between-meal treat. No doubt they are using the term need to express strong desire.

There is a second definition of needs, however, that can be differentiated from the concept of one's conscious or nonconscious wants or goals and that is more technically useful when addressing psychological development and health. In this definition needs refer to the nutriments or conditions that are essential to an entity's growth and integrity. A plant needs sunlight and water to grow. Similarly a person, as a biological entity, needs food, water, and (in Rochester, NY) shelter to thrive. This usage of the term need can be applied across the life sciences, since all living things have empirically identifiable needs whose essentialness can be examined by systematically varying nutriments against the criteria of health and integrity.

Furthermore, this usage of the term need addresses what is perhaps the most common superficial criticism of need-based constructs, namely, that the number of potential needs one can posit is endless. No doubt one can posit infinite needs using the looser definition described above, but when the criterion of essentialness or necessity for growth and integrity is imposed, the list of needs will shorten quickly.

Within the framework of self-determination theory (Deci & Ryan, 1985b, 1991; Ryan, 1993) there are three essential needs for psychological growth and well-being—the needs for autonomy, competence, and relatedness. Support for autonomy, for effectance, and for feelings of connection with others is argued to be the prerequisite for optimum functioning of these organismic integrative processes.

This hypothesis can be applied to the understanding of an individual's general degree of integration or self-actualization, as well as the integration of specific values and regulations. Persons, for example, who have received impoverished supports for autonomy, effectance, and/or relatedness in early life will thus be expected, on average, to evidence more integrative difficulties in general, from lessened intrinsic motivation (e.g., Frodi, Bridges, & Grolnick, 1985), to poorer internalization (Ryan, Stiller, & Lynch, 1994) and diminished emotional regulation (Ryan, Deci, & Grolnick, in press; Strauss & Ryan, 1987). Depending on how well they have been supported in terms of these needs, children will emerge from early experiences with generalized orientations toward the regulation of behavior as being organized autonomously from within, heteronomously from without, or as being uncontrollable and unpredictable (Deci & Ryan, 1985a). Such generalized orientations primarily operate as factors of resilience versus vulnerability to integrative challenges within specific domains and situations.

More important, the psychological need model applies equally well to analyses of behavior within domains and situations, which vary widely in their affordance of need supports. These variations in support potentiate domain- and situation-specific differences in integration within the individual. For example, people who experience autonomy support, optimal challenges, and belongingness within school but not in sports will evidence greater integrated functioning in the classroom than on the athletic field. People who feel more controlled and disconnected in their work life than in their church will feel more autonomy and greater well-being in the latter sphere than the former. Even further, the same person will function in a more integrated fashion within any domain as a function of the afforded supports related to psychological needs.

Thus a general formulation emerges that concerns the social psychology of integrative processes and their apparent domain and situational specificity: The orientation of a person's domain-specific and situational motivation will be a function of both the prior history and current conditions supporting the psychological needs that subserve psychological integration. More specifically, factors in the distal environment (most notably one's early relationships with caregivers) shape generalized individual differences in one's capacities for integrated regulation. Factors in the proximal environment that support autonomy, competence, and relatedness, however, can also conduce toward integrative propensities within a given field of action, leading to domain-specific differences in relative integration. Domains and situations in which indi-

viduals find their basic psychological needs supported will be those in which integrative processes will be most evident, and in which persons will tend to experience the greatest well-being and satisfaction.

Domains and the Facilitation of Integration: Toward Useful Theory

This general formulation suggests that in any domain of life there will be variations in the expression of integrative tendencies as a function of supports for psychological needs. Differences in attitudes, affect, persistence, and the quality of performance reliably follow. The term domain as I use it here refers to an a priori judgment about a category within which measurement is intended to apply (Gable, 1986). Domain categories could be defined in terms of settings (as in school or work domain); type of activity (as in achievement or relationship domain); or type of process (as in affective or cognitive domain), among other foci. Practically, then, domain-specific research is a method of focusing one's measurements (constraining generality) in accord with a priori categorizations, in order to cut down on error variance. In specifying a domain one places limits on the conditions, settings, or activities to which assessments are applied, thus maximizing reliability, but at the cost of generalizability.

But the raison d'être of domain-specific research is only secondarily methodological. Domain research is critical because of its applied significance. The point of psychological theory is not merely to account for variance, it is to inform social practice. Domain-specific studies offer a better understanding of the extent to which some general principle "works" in a specific sphere where there are special influences in operation. By moving from domain to domain, opportunities to differentiate general formulations increase accordingly. Motivational principles are particularly apt candidates for domain-specific research precisely because they are often posed in general terms and thus need to run the gamut of applications to varied settings and types of endeavors.

That domains vary in their psychological nutriments underscores the idea that, if there is a generalized, innate, and natural integrative tendency, it is differentially facilitated or undermined within different contexts. Findings emerging in many domains, such as education (Ryan & Stiller, 1991), health care (Ryan, Plant, & O'Malley, in press), sports (Frederick & Ryan, in press), religion (Ryan, Rigby, & King, 1993),

and work (Ilardi et al., 1993), among others, attest to the applied importance of grappling with the psychological nutriments that catalyze the organismic capacities with which nature endows us. They show how attention to people's needs to feel effective, to have a voice, and to feel connected with others matters in every domain, but that the practical factors affecting the fulfillment of these needs are often context-specific.

Aggregated estimates of people's relative autonomy across the central domains of their life would, nonetheless, provide a pretty good index of their general level of integrity in functioning, and also predict general well-being outcomes. In a recent study contrasting various models of integration, Sheldon and Kasser (1995) examined this possibility using Emmons's (1986) personal strivings methodology. Emmons's technique asks participants to generate lists of "what they are trying to do" in general (across domains). Sheldon and Kasser modified this technique by asking participants to rate each of their personal strivings in terms of whether they do them for external, introjected, identified, or intrinsic reasons, that is, in accord with the schema presented in Figure 1. Averaging across strivings, they created a "striving self-determination" summary score, arguing that this variable reflects the general integration of goals to the self. They reported that this index not only predicted trait measures of vitality, self-actualization, openness, role integration, and general affect; it also predicted daily variations in physical symptomatology, energy, and mood. Thus to the extent that one's strivings are experienced as "one's own" then one also experiences greater well-being in general.

Values and Their Relations with Basic Psychological Needs

The definition of psychological needs presented here is a functional one. Whether or not one is aware of "needing" autonomy, competence, or relatedness, one's access to them will impact upon one's tendencies toward growth and integration, and thus the experience of well-being and health. Not only are one's conscious desires not definitional of needs; conscious wants and desires may often run counter to basic needs. For example, because of various dynamic and cultural influences, an individual may come to consciously value "independence" and be strongly oriented to avoid relying on others. Such a value may conflict with relatedness needs and thus have deleterious consequences

for integration and well-being. Similarly, one may place a high value on material success and thus enslave oneself to attain it, thereby losing one's autonomy in the process.

These examples show one advantage of defining psychological needs independently of acquired desires and values: Such an approach opens up the opportunity to examine the convergence of a given set of values with basic needs. It also allows empirical investigation of whether values of a specific culture foster the psychological growth and health of its members or engender desires, practices, and lifestyles that are incongruent with psychological needs, leading to individual distress and stagnation and, at a cultural level, fragmentation and alienation.

Kasser and Ryan (1993, in press) applied this reasoning in recent research on particular values held by Americans. In an initial series of studies (1993) they compared individuals who held a strong relative value for money and material goods to those who placed more relative value on relationships, personal growth, and generativity. The latter values were presumed to be more conducive to the fulfillment of basic psychological needs than the materialistic emphasis. Accordingly, they predicted that materialistically oriented individuals would experience diminished self-actualization, vitality, and well-being. These hypotheses were confirmed. In a subsequent study, Kasser, Ryan, Zax, and Sameroff (1994) showed that individuals who were especially oriented toward materialism were also those who, both by their own and their mother's reports, received less autonomy support and relatedness in their formative years. Kasser et al. suggested that impoverished psychological supports for the self in childhood may lead to an increased focus on extrinsic goals and outcomes, which in turn may even further interfere with one's being oriented to, and/or successful at, the fulfillment of basic psychological needs.

More recently, Kasser and Ryan (in press) expanded the list of values examined. They identified a set of extrinsic aspirations, namely aspirations for money, fame, and attractiveness, and a set of intrinsic aspirations that included those for secure relationships, personal growth, and generativity. When the relative importance of these aspirations was examined, persons who placed relatively high importance on extrinsic values showed less psychological and physical health on a number of indicators, compared to those whose aspirational portraits emphasized intrinsic, or basic needs. Furthermore, those who expressed more confidence in extrinsic outcome attainment relative to intrinsic aspirational success also showed poorer outcomes.

The point is that values, desires, and conscious wants are not simply reflections of needs. One's values and salient goals are, in the current view, derived from the interaction of cultural inputs and one's innate needs (Ryan, Sheldon, Kasser, & Deci, in press). Cultural inputs can be relatively congruent with the needs that subserve psychological integration or they can be antithetical to them. Thus by setting forth a clear concept of needs that is definitionally separable from culturally acquired values, researchers can study why it is that some cultures do a better job of facilitating the well-being and integrity of individuals within them and others conduce to psychological fragmentation. I would further speculate that the more a culture's values evolve toward incongruence with basic psychological needs, the more difficulty individuals within that culture will have internalizing and integrating the transmitted way of life, and thus the fabric of the culture itself will deteriorate—it will fail to "integrate" its members.

Integration and Actualization: Trait versus Dynamic Models

Insofar as researchers have applied the concept of integration to personality functioning, their focus has largely been on the assessment of individual differences in one's general level of integration or actualization. For example, humanistic psychologists, including Shostrom (1964) and Jones and Crandall (1986, 1991) have developed measures of self-actualization, or the expression and realization of the true self (Maslow, 1954). Seeman (1983) also developed a large nomological net of construct validity in his research on general differences in personality integration. Loevinger (1976) developed a measure of ego development based upon a structural perspective concerning the ego's ongoing synthetic activities. Although these measures have established solid construct validities, particularly with respect to trait and global outcomes, they are clearly not designed for the study of the situational dynamics of integrative processes.

In my work I have tried to examine variations in the regulation of behavior (*a*) at the level of broad individual differences assumed to transcend domains (e.g., Deci & Ryan, 1985a); (*b*) within domains (e.g., Ryan & Connell, 1989); and (*c*) in specific situational contexts where a single target behavior is in focus (e.g., Deci, Eghrari, Patrick, & Leone, 1994; Ryan, 1982). People are thus assumed to evidence integrative tendencies in general, within a domain, and in a specific situation, in

part as a function of the richness or impoverishment of supports for psychological needs within these respective levels of analysis and also as a function of the next higher level of specificity. For example, Williams, Grow, Freedman, Ryan, and Deci (1994) found that patients' level of autonomous motivation for dieting, which predicted weight loss maintenance 23 months following treatment, was itself predicted both by the patient's perceptions of the treatment staff's autonomy support and also by patients' general orientation toward being autonomous.

Outcomes at each level of analysis are thus theoretically expected to influence one another, in what Vallerand and Guay (1994) recently described as a hierarchical, interactionist manner. Various types of motivation can be represented at different levels of generality within the individual. Global motivational styles are shaped largely by both contextual influences in the early caretaking environment and one's current global contextual supports; domain motivations are influenced both by domain-specific contextual conditions and one's generalized expectancies and orientations; and situational behavior is influenced both by the immediate social context and relevant domain-specific orientations. In a large-scale test of this hierarchical interactionist formulation, Vallerand and Guay examined at each of the global, domain, and situational levels (*a*) participants' motivational style (as in Figure 1); (*b*) their perceptions related to autonomy, competence, and relatedness; and (*c*) motivational consequences (cognitive, affective, and behavioral outcomes). Using structural equation modeling they found support for the hierarchical model: Variables within a given level were most strongly associated, variables at adjacent levels were more moderately related, and only weak relations emerged between the nonadjacent levels (i.e., global and situational), as predicted.

Viewing integration not just in terms of a global individual difference but also as something that varies from domain to domain, situation to situation and, at times, from moment to moment, underscores how integration and autonomy are existentially relevant constructs (Kaplan, 1983; Vandenberg, 1991). Life is not lived as a trait. No matter what a person's "global" or general level of integration, he/she will vary from it in accord with variations in situational motives and supports. Variations from some general or average level of integration or autonomy are thus not merely "error" variances, but rather reflect person-in-context dynamics that are systematic and meaningful. They reflect that one's volition and integration are, as Kierkegaard (1849/1968) pointed out, not given, but rather an ongoing task of maintenance and development.

The daily struggle surrounding the fulfillment of psychological needs and their relations with well-being was illustrated in a recent "diary" study by Sheldon, Ryan, Reis, and Rigby (1994). Participants rated specific daily activities in terms of the autonomy and competence experiences that accompanied them. Even after controlling for variances due to global individual differences, time of week, the effects of the preceding day, and the person's own mean levels on all variables, both competence and autonomy daily ratings significantly predicted daily variations in positive affect, vitality, and physical symptoms. It is clear from this study that variations in one's experiences of autonomy and competence predict the daily variations in personal well-being that surround one's own personal mean levels. Autonomy and competence are needs in an everyday sense.

The point of this brief, incomplete review is to highlight how different social contexts bring different needs, environmental supports, and forms of motivation to the fore, thus influencing one's relative integration in the here-and-now. How active, interested, and authentic versus alienated one is in a given setting is thus not just a matter of preexisting individual differences, but is also a function of immediate affordances related to basic psychological needs, and the attitudes and perceptions with which one engages them.

The Multiplicity of Self Revisited

As previously noted, many current research paradigms in personality emphasize a multiplicity of selves housed within individual persons. Indeed, the trend among cognitive theories of personality is to eschew the idea of a central or core self, in favor of what I earlier described as the handbag metaphor—a collection of more or less isolated schemas, scripts, possible selves, and identities, each cued up by immediate social contexts.

Although the theoretical traditions that inform these cognitive perspectives are varied, many of them can be linked either directly or indirectly to the assumptive framework of symbolic interactionism and Cooley's (1902) concept of the looking-glass self (McAdams, 1990). In this tradition one's self is largely derived from construals of how others view us (Harter, 1988). Since the mirrors of self differ from context to context, one can potentially have as many different selves as there are significant relational contexts in which one finds oneself (James, 1890). However, some theorists appear to focus on one's generalized view

of self in the looking glass, whereas others focus on variations in the model of self engendered by differing relational contexts (Greenwald, 1982). At the extreme is the postmodernist, saturated self (Gergen, 1991), which, in chameleon-like fashion, continuously changes its hue with every context and lacks any primary color.

On the surface it would seem that the idea of one's having multiple, socially derived, selves (or "me's") stands in stark contradiction to the view espoused herein, in which any given script, motive, or value is measured with respect to its integration into one's true, core, or authentic self. Yet that contradiction may be only apparent. Rather than opposing the hypothesis of multiple "me's," I think the current perspective instead allows a dimension along which such multiple "me's" can be comparatively evaluated. It suggests that each of these "me's" within personality is itself subjectively experienced as more or less one's real self. Thus the "I" experiences each "me" as more or less authentic versus alien, more or less self-expressive and integral. In attributional terms, each enactment of a "me" varies in its perceived locus of causality and its congruence with other aspects of self (Deci & Ryan, 1991).

Social critics such as Gergen (1991) and Broughton (1988) have therefore been descriptively correct in pointing to the fragmented and fluctuating character of modern identity. Given the multiplicity of demands within postindustrial economic systems and the absence of stable psychological supports for the individual, people will predictably experience alienation and conflict in many life roles. It may be a rare person who, within our present overstimulating and relationally unsupportive society, is able to experience the preponderance of the "me's" he or she has internalized as being volitional and congruent. Such a person would undoubtedly have high global self-actualization in the traditional sense. But the current perspective would underscore that even when this occurs it is not solely an *individual* accomplishment—it is an attainment made possible by interpersonal supports that nurture one's security, competence, and freedom. In the postmodern world, it becomes even more necessary to specify the social nutriments required to maintain an integrated "I" within a psychic house crowded with "me's."

Integration and Autonomy versus Individualism and Independence

It has been widely espoused that theories concerning the self, its integration, and its autonomy derive from an ideology of individualism and/or independence. But distinctions *can* be drawn between autonomy and independence that help considerably in understanding why the implications of organismic psychologies are not limited to individualistic societies, and indeed, run contrary, in some regards, to individualistic perspectives.

The process of integration involves the mastery and ownership of one's actions, such that they are engaged with competence and experienced as proceeding from the self. Whereas autonomy and integration have to do with volition and with internal coherence, independence concerns whether one relies on others or not. Independence is a separate (but dynamically related) dimension from that of autonomy and integration. One can be volitionally dependent or independent in varied situations. Similarly when one cares for a dependent, one's care can be provided volitionally or without autonomy. The issue is, therefore, not autonomy versus dependence, but rather how well integrated one's relationships of care and support are.

Some studies of adolescents have explored the dynamics concerning independence and autonomy, differentially conceived. Ryan and Lynch (1989), arguing that independence was more antithetical than convergent with autonomy, showed that teens who were more willing to rely on parents were more likely than their "independent" counterparts to report higher self-esteem, perceived competence, and lovability. They also perceived their parents as more supportive of their independence and as more accepting. One can see here how independence hardly equates with autonomy. Similarly, Ryan et al. (1994) found that adolescents who reported being more willing to rely on parents and teachers tended to experience greater competence and autonomy in school, with both teachers and parents carrying unique effects on domain-specific outcomes. More generally, the higher the perceived quality of relatedness, the greater one's feelings of autonomy and competence. Such studies show how supportive relationships and dependencies facilitate rather than inhibit autonomy.

Conversely, autonomy also facilitates relatedness. The more fully volitional and intrinsically motivated a relationship is the more likely it

is to be characterized by satisfaction and trust. For example Rempel, Holmes, and Zanna (1985) found that feelings of love, trust, and faith that a relationship would endure were all positively associated with the perception that one's partner was involved in the relationship for intrinsic reasons. Similarly, Blais et al. (1990) examined perceived autonomy in relationships as a predictor of couple satisfaction and happiness, and found that dyadic happiness was positively related to self-reports of autonomous motivation for living together and negatively related to heteronomous or controlled motivation.

Returning to the theory of basic psychological needs, it appears that when basic needs for relatedness are met then the tendencies toward growth, development, and integration are optimized. Integrative activities are furthered by relational supports, and indeed depend upon them. There can be no integration of a separate individual (Brown, 1966).

Thus not only are organismic assumptions not individualistic, organismic psychology transcends individualism by pointing out that integrative processes provide the essential linkages that connect the strata of life. In biological theory it is through such processes that cells become organized into organs, organs into organisms, and organisms into groups. Psychological processes similarly can be conceived of as entailing not only integration within structures and functions, but also integration between such structures and functions in order to maintain an individual totality, and finally between individuals and the groups and cultures to which they are integral. As Angyal (1941) long ago speculated, autonomy and homonomy are not separate drives, they are part of one general organization propensity.

CONCLUSION

Organismic theories of personality and development place considerable emphasis on integrative processes in the psyche, including the specific type of integration that concerns the regulation of behavior by the self. Most research on integration has emphasized individual differences in overall personality integration where such differences have predicted a number of positive outcomes such as general mental health, life satisfaction, and congruence.

Still, I have suggested that there has been too little emphasis on the fact that integration in the regulation of behavior is an ongoing process that is influenced by social-contextual conditions in the immediate environment. Accordingly, in this review I have stressed the relationship between inherent or "natural" integrative processes and contextual

nutriments as a dynamic influence upon the quality of behavioral regulation within domains and situations. Generally, it appears that everyday psychological and behavioral integration is optimized only under certain conditions of nurturance and sustenance. Put differently, there are aliments that facilitate psychological integration, and there are conditions and contexts that derail these propensities.

In order to specify the nature of ongoing integration in the regulation of behavior, three processes reflective of integration were described: intrinsic motivation, internalization, and emotional integration. A schema for categorizing behaviors in terms of their relative integration was introduced. This schema not only describes variations in relative integration, but also of experienced autonomy or volition.

Also outlined was a general theory that relates psychological needs to ongoing integrative processes. This framework explicitly defines needs in terms of conditions or inputs that are necessary for growth, health, and integrity. By such criteria, psychological well-being and integration depend upon opportunities to experience autonomy, competence, and relatedness. Evidence supporting the model within specific domains was cursorily reviewed.

When personality integration is viewed not only as a trait but also as a process that is either supported or undermined by both general and immediate interpersonal and environmental conditions, the focus becomes what could be called the social psychology of self-regulation. In such an approach one can accept integration as a generalized human tendency while also acknowledging that impoverished conditions of support for psychological needs can lead to considerable fragmentation, conflict, and inefficiencies in the regulation of action. Thus the observable lack of integration in much human behavior does not, of necessity, contradict the assumption of integrative tendencies; rather it reflects an appreciation of how powerfully dependent growth is on the cultural and social conditions that are available to nurture the self. While biologic, temperamental, and other organic factors also affect integrative processes (see, e.g., Cicchetti, 1991), social factors affecting the fulfillment of basic psychological needs stand out as the most significant factors at work. Given current cultural conditions, it is easy to conclude along with Allport (1965) that the "unity of personality is only a matter of degree, and we should avoid exaggerating it" (p. 386).

What deCharms (1968, p. 269) described as "our primary motivational propensity" to be the origin of our actions is ever present alongside our more fluctuating desires and drives. Indeed, striving to

select, coordinate, and "own" (take responsibility for) one's actions in the face of external and internal demands is a central challenge of development. Integration, then, represents not just one drive among others, but concerns the organization and regulation of all behavioral propensities. Integrative processes are a paradigmatic problem for the field of personality, just as organizational processes are for biology. The study of integration, however, will come to the fore only to the degree that researchers recognize that the study of humans is a part of the study of animate nature as a whole, and thus falls within the scope of the life sciences and the organismic assumptions they entail.

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Manuscript received May 1994; revised December 1994.