

Distinguishing Reactive versus Reflective Autonomy

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ABSTRACT The present study distinguished reactive and reflective conceptions of autonomy. Following Henry Murray, personality theorists such as Gough and Heilbrun (1983) have emphasized the interpersonal and reactive aspects of autonomy, defining it as an orientation to act independently of others. More recently, Deci and Ryan (1991) highlighted the intrapersonal and reflective aspects of autonomy, describing it in terms of experiencing a sense of choicefulness about one's actions. Study 1 showed that measures derived from the two conceptions of autonomy are loosely related and that only reactive autonomy is associated with the Big Five trait factors of personality. Study 2 used an interval-contingent experience sampling methodology to show that reactive and reflective autonomy relate in different ways to daily affect and to the use of mood regulation strategies. Study 3 used an event-contingent experience sampling methodology to show that the social experiences associated with the two types of autonomy varied as a function of whether the interactions involved peers or authority figures. Together, the studies demonstrate the importance of distinguishing reactive and reflective conceptions of autonomy.

In their self-determination theory, Deci and Ryan (1991) proposed that there are three psychological needs that fuel development and promote adaptive functioning: competence, relatedness, and autonomy. The need

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for competence “encompasses people’s attempts to control outcomes and experience effectance” (p. 243). The need for relatedness “encompasses a person’s strivings to relate to and care for others, to feel that those others are relating authentically to oneself, and to feel a satisfying and coherent involvement with the social world more generally” (p. 243). The need for autonomy “encompasses people’s strivings to be agentic, to feel like the origin of their actions, and to have a voice or input into determining their own behavior” (p. 243). These three needs are presumed to be fairly exhaustive and to account for a substantial amount of variation in human behavior and experience.¹

Self-determination theory proposes a dialectical relation between the development of the three basic needs and the social context in which such development is embedded (Ryan, 1993, 1995). Early research related to this theory examined the influence of social-contextual factors on the development and expression of adaptive behaviors related to autonomy. It was shown that interpersonal contexts that support feelings of autonomy also foster intrinsic motivation, challenge-seeking, resilience in the face of failure, cognitive flexibility, creativity, and conceptual learning (Amabile, 1979; Deci & Ryan, 1987; Harackiewicz, 1979). More recent work examined the relation of individual differences in autonomous self-regulation to behavior and experience in various domains (Blais, Sabourin, Boucher, & Vallerand, 1990; Boggiano & Barrett, 1985; Deci & Ryan, 1985; Deci, Eghari, Patrick, & Leone, 1994; Koestner, Bernieri, & Zuckerman, 1992; Ryan, 1995; Ryan & Connell, 1989; Vallerand & Bissonnette, 1992). This research indicates that autonomy is positively associated with initiative, persistence, optimism, psychological adjustment, and the display of integrated and consistent behaviors.

Deci and Ryan’s (1985, 1987, 1991) conceptualization of autonomy is derived from the “naive” psychology of Heider (1958) and deCharms (1968), who described the manner in which attributions are made about the causes of behavior, distinguishing first between intentional versus nonintentional actions and second between intentional behavior that is under heteronomous control versus that which is autonomous. DeCharms (1968) argued that intentional action is not always free or

1. Ryan (1995) defines needs as “the nutriments or conditions that are essential to an entity’s growth and integrity” (p. 17). This definition is contrasted with the more traditional usage of the term by motivation researchers such as Murray (1938) and McClelland (1985), who equate needs with individuals’ desires, goals, and wants.

self-initiated, distinguishing between intentional actions for which the locus of causality is internal, resulting in the experience of oneself as an “origin” of action, and those for which the locus of causality is external, resulting in the experience of feeling like a “pawn” to social pressures and inducements. When acting as origins, people experience themselves as the cause of desired changes and concurrently take personal responsibility for their actions (deCharms, 1992).

Ryan (1993) recently noted that this conceptualization of autonomy owes much to phenomenological approaches in which a sense of ownership, authenticity, responsibility, and choice are all entailed in autonomy. He pointed out, however, that it is common to misconstrue the meaning of autonomy, defining it too narrowly in terms of resistance to outside influences on behavior:

Autonomy does not entail “being subject to no external influences” (e.g., parents, teachers, public figures). As Dworkin (1988) points out, there is no possible world that is free of external influences. The issue is whether my following such influences reflects mere obedience or coercion rather than a reflective valuing of the direction or guidance that these inputs provide. It is in one’s subjective assent to some influences and not others that the question of autonomy becomes meaningful. (1993, p. 10)

In other words, autonomous behaviors are those that result from a reflective evaluation of options and a consideration of one’s interests and needs rather than from reflexive opposition to any outside influence.

A potentially serious problem emerges, however, because the dominant conceptualization of autonomy in personality psychology is based on Murray’s (1938) *Explorations in Personality*, in which the need for autonomy was defined precisely in terms of an almost reflexive rejection of outside influence: “To resist influence or coercion; to defy an authority or to seek freedom in a new place. To strive for independence” (p. 82). Murray conceptualized autonomy as one of several needs that concerned “how human power is exerted, resisted, or yielded to.” He suggested that individuals could be judged high in autonomy to the extent that they avoided influence from others. Such behavior was contrasted with copying and obeying others (which would reflect a need for deference) and with commanding, leading, and acting as an exemplar for others (which would reflect a need for dominance). Thus, Murray proposed that “the need for autonomy controls those who wish neither

to lead or be led, those who want to go their own way, uninfluenced and uncoerced by others" (p. 152).

Murray (1938) also described persons high in autonomy as likely "to do as they please regardless of convention," "to avoid organized athletics or regular employment," "to love adventure and change," and "to look on marriage as a form of bondage" (p. 152). Initial experimental support for this conception of autonomy was obtained by showing that men who scored high on a self-report measure of autonomy were significantly more resistant to hypnotism than were men low in autonomy.

Deci and Ryan's (1985, 1987, 1991) conceptualization of autonomy, thus, represents a departure from previous work in personality psychology. These authors define autonomy not in terms of reaction against external influences on behavior, but rather in terms of a reflective weighing of outside inputs along with consideration of one's own interests and feelings, followed by a measured decision about what one chooses to do. Stated differently, Deci and Ryan define autonomy in terms of intrapersonal processes, whereas Murray defined it in terms of interpersonal processes. We propose that the Deci and Ryan conception of autonomy be referred to as "reflective autonomy" and the Murray conception be designated "reactive autonomy." We contend that these two conceptions of autonomy are only loosely related and can be expected to predict behavior and experience in different ways. The next two sections review research using measures of each type of autonomy.

Measuring Reflective Autonomy

The General Causality Orientations Scale (GCOS; Deci & Ryan, 1985) was developed to measure individual differences in people's orientation toward autonomous, control-determined, and impersonal functioning. This self-report questionnaire was "constructed to be a general scale, one that cuts across domains and includes a wide range of responses and reactions" (Deci & Ryan, 1985, p. 130). The GCOS consists of brief vignettes, each presenting a situation that could elicit different forms of self-regulation, followed by three possible responses to that situation: one that is autonomy oriented, one that is control oriented, and one that is impersonal oriented. Autonomous behaviors are those that are initiated and regulated by choices derived from an awareness of one's needs and integrated goals. Control-determined behaviors are those that are initiated and regulated by controls in the environment,

such as reward structures, or by internally controlling imperatives indicating how one “should” or “must” behave. Impersonal behaviors are those whose initiation and regulation are perceived to be beyond a person’s intentional control.

The original validation studies conducted by Deci and Ryan (1985) showed that people’s scores on the autonomy subscale of the GCOS were significantly positively related to other constructs that were theoretically linked to self-determination, such as self-esteem, self-actualization, and ego development. Subsequent research with the GCOS showed that autonomous individuals rarely experience boredom (Farmer & Sundberg, 1986), carefully weigh their own interests and abilities when trying to make a career choice (Blustein, 1988), and focus on enjoyment and challenge at work (Amabile, Hill, Hennessey, & Tighe, 1994). More recent research using experimental designs revealed that the autonomy orientation was associated with a high degree of integration in personality and a confident and persistent approach toward one’s goals (Koestner et al., 1992; Koestner & Zuckerman, 1994). Research using experience sampling methods revealed that an orientation toward autonomy was associated with positive interpersonal functioning in everyday life (Hodgins, Koestner, & Duncan, in press). A treatment-outcome study showed that weight-loss patients high in GCOS autonomy were significantly more likely to remain in treatment and to maintain their weight loss after completion of the treatment (Williams, Grow, Freedman, Ryan, & Deci, 1996).

Measuring Reactive Autonomy

Murray’s (1938) conceptualization of autonomy guided the selection of items for autonomy scales on three widely used, omnibus motive inventories: The Adjective Checklist (ACL; Gough & Heilbrun, 1983), the Personal Preference Schedule (Edwards, 1954), and the Personality Research Form (Jackson, 1974). Gough and Heilbrun (1983) define autonomy as the need “to act independently of others or of social values and expectations” (p. 12). These authors included autonomy as 1 of 16 motive scales on the ACL. The ACL requires respondents to circle any of 300 trait adjectives that they view as self-descriptive. Autonomy items were derived by using a rational-construction method in which personality experts group items into clusters according to their inferred psychological meaning. Autonomy is assessed by 44 adjectives, 29 of

which are positive indicators of autonomy (e.g., adventurous, assertive, independent), whereas 15 are contraindicative (e.g., dependent, suggestible) (Gough & Heilbrun, 1983).

Initial validity of the ACL Autonomy scale was established by examining the relation of autonomy scores to observers' Q-sort descriptions. Gough and Heilbrun summarized the findings as follows:

Those who score high on Autonomy are independent and autonomous, but also assertive and self-willed. They tend to be indifferent to the feelings of others, and are viewed as egotistical and headstrong. Low-scorers are more conventional, seek security in the tried and true, avoid risks, and welcome direction from trusted superiors. (1983, p. 12)

Thus, ACL autonomy is associated with peer descriptions of independence, assertiveness, unconventionality, and social insensitivity.

A review of studies that have used the ACL Autonomy scale suggests that it is assessing an aspect of autonomy that overlaps only slightly with the form of autonomy identified by the GCOS of Deci and Ryan (1985). Although ACL autonomy has been associated with satisfaction with careers encouraging self-direction (Arvey, Dewhirst, & Boling, 1976), it has also been shown to predict a dislike for work environments requiring teamwork (O'Reilly, Chatman, & Caldwell, 1991). Unlike the GCOS Autonomy scale, which has generally been associated with adaptive, responsible behavior, scores on the ACL Autonomy scale have been shown to be significantly positively related to criminal behavior, particularly drug addiction (Platt, 1975; Sutker, Allain, Smith, & Cohen, 1978). Also in contrast with the GCOS measure of autonomy, scores on the ACL Autonomy scale have been shown to be predictive of a lack of persistence in pursuing one's goals. For example, Heilbrun (1961) reported that college men who were high in autonomy were more likely to drop out of counseling than men who scored low on this dimension. Similarly, Craig and Olson (1988) reported that men high in autonomy were more likely to drop out of treatment for drug addiction than those who were low in autonomy. In a longitudinal study with a sample of over 2,000 students, Heilbrun (1965) reported that for both men and women autonomy was significantly positively related to dropping out of college.²

2. Brehm and Brehm's (1981) theory of psychological reactance is compatible with Murray's conceptualization of autonomy. The theory holds that individuals experience

Present Studies

To review, the work of Murray (1938) and Deci and Ryan (1985) has led to two distinct conceptions of autonomy, complete with different definitions, measuring instruments, and predictive criteria. Apart from the obvious dangers of calling different measures by the same name, it is important to clarify the distinction between these conceptions because it may offer insight into the nature of autonomy. We propose that two distinct forms of autonomy have been uncovered, and each will be useful in understanding human behavior and experience.

The central difference between the two conceptions of autonomy involves a distinction between “freedom from the governance of others,” and the “freedom to self-govern” (Hodgins et al., in press). Murray’s definition of autonomy is predicated on independence from and non-reliance upon others whereas Deci and Ryan’s definition is predicated on the capacity to make informed choices based on an awareness of one’s own needs, interests, and values (Ryan, 1991, 1993). The social-developmental implications of this distinction were examined in a study by Hoffman (1984). He distinguished multiple ways in which teenagers conceptualize their independence, including attitudinal independence, which was defined as striving to be different from one’s parents, and conflictual independence, which was defined as freedom to exercise choice without experiencing guilt, anxiety, and anger in relation to one’s parents. The results showed that attitudinal independence, which parallels our conception of reactive autonomy, was associated with maladjustment among teenagers, whereas conflictual independence, which parallels our conception of reflective autonomy, was related to healthy adjustment. Ryan and Lynch (1989) reported similar findings when they distinguished between teenagers’ emphasis on emotional detachment from parents versus autonomous self-governance.³

psychological reactance when their belief that they can freely engage in a particular behavior is threatened by social pressures. Reactance leads people to view the threatened behavior as more attractive and to strive to restore the threatened freedom. Brehm and Brehm (1981) note that “reactance theory comes from a social psychological tradition that does not emphasize individual differences” (p. 213). Nonetheless, it is likely that people high in ACL autonomy possess a lower threshold for reactance than people who score low on this measure. Thus, high ACL autonomy scorers can be expected to be more likely to perceive coercion at, and react in opposition to, even mild forms of social influence.

3. A reviewer noted that reactive and reflective autonomy have had their greatest

We conducted three studies to distinguish reactive and reflective autonomy. Study 1 examined the relation of the two types of autonomy to other forms of self-regulation assessed by the GCOS. Study 1 also considered the relation of reactive and reflective autonomy to the Big Five personality trait dimensions. Study 2 used an interval-contingent, experience sampling methodology adopted from Larsen (1993) to examine the manner in which reactive and reflective autonomy relate to daily affect and to the use of mood regulation strategies. Study 3 used an event-contingent, experience sampling technique to examine the relation of reactive and reflective autonomy to everyday social experiences (Reis & Wheeler, 1991).

Study 1

Causality orientations were conceptualized by Deci and Ryan (1985) as general, motivational orientations reflecting individuals' implicit and explicit understanding of the causes of their behavior. Three distinct orientations were postulated, each of which could be placed along a continuum of self-determination. An impersonal orientation reflects non-self-determination and involves experiencing one's behavior as being beyond intentional control. A control orientation reflects a low level of self-determination and involves organizing one's behavior primarily with respect to external reinforcement contingencies. An autonomy orientation reflects a high level of self-determination and involves experiencing a high degree of choice with regard to the initiation and regulation of one's behavior.

The first purpose of Study 1 was to examine the manner in which reactive autonomy, as measured by the Adjective Checklist, related to the three causality orientations assessed on the GCOS. It was hypothesized that reactive autonomy would be unrelated to the (reflective) Autonomy scale on the GCOS but positively related to the Control Orientation

currency as constructs in different fields. With its lineage in Murray (1938) and its measurement captured in such omnibus scales as the ACL, reactive autonomy comes out of the personality disposition literature as one of many different needs or tendencies which, like most of the others (e.g., achievement, dominance, affiliation), has both positive and negative outcomes associated with it. By contrast, reflective autonomy derives from developmental and humanistic psychology. Within this tradition, autonomy represents a more mature stage of development and encompasses many of the positive features of what Carl Rogers (1951) would call the fully functioning individual.

scale on the GCOS. Regarding the relation between reactive autonomy and control orientation, Deci and Ryan noted that:

[t]he control orientation most frequently leads to compliance with real or imagined controls (whether they take the form of threats, inducements or expectations), but in some instances it may involve rebellion against controls and doing just the opposite of what is demanded. In instances of either compliance or defiance, the behavior is said to be controlled rather than chosen because both compliance and defiance have a quality of being pressured and conflicted. (1985, p. 112)

In other words, whether one actively complies with controlling structures or reactively opposes them, one's behavior is still being regulated by the controls in the environment. Finally, reactive autonomy was expected to be negatively related to the Impersonal scale of the GCOS. Both reactive and reflective forms of autonomy should mitigate against experiencing oneself as nonintentional or unable to have an influence over outcomes.

Study 1 also considered the relation of the two types of autonomy to the Big Five trait factors that have emerged repeatedly in large-scale factor-analytic research on personality inventories. According to Costa and McCrae (1985), Neuroticism assesses "adjustment versus emotional instability"; Extraversion assesses "the quantity and intensity of interpersonal interaction"; Openness to Experience assesses "proactive seeking and appreciation of experience for its own sake"; Agreeableness assesses "the quality of one's interpersonal orientation along a continuum from compassion to antagonism in thoughts, feelings and actions"; and Conscientiousness assesses "the individual's degree of organization, persistence and motivation in goal-directed behavior" (p. 2).

Shaver and Brennan (1992) argued that the current prominence of the Five Factor model in personality psychology requires that new personality measures "should be located, if possible, on the map formed by the Big Five trait dimensions and checked for possible redundancy with them" (p. 537). A study by Piedmont, McCrae, and Costa (1991) indicated that reactive autonomy, as measured by the ACL, is significantly associated with Disagreeableness, Extraversion, and Openness to Experience. No one has yet examined the relation of reflective autonomy to the Big Five trait factors. We would predict that only weak relations

will emerge between reflective autonomy, as measured by the GCOS, and the Big Five trait factors. McAdams (1992, 1994) has noted that trait approaches capture the most general and observable consistencies in an individual's behavior. Trait approaches fail to account, however, for other important aspects of personality, such as interpretive schemas and motives, both of which function beyond the level of traits. Because reflective autonomy is a motivational construct that concerns the way in which individuals interpret situations and make choices about how to regulate their behavior, we would expect only modest relations with the type of observable, social-emotional consistencies of behavior captured by the Big Five trait taxonomy.

METHOD

Participants

Ninety women and 51 men participated in the experiment on a voluntary basis. Participants received \$4 for taking part in the study. Questionnaires were administered in groups of 5 to 15 participants. Participants' mean age was 21.1 years. Only 66 of the women completed the NEO-Five Factor Inventory (NEO-FFI; Costa & McCrae, 1989).

The General Causality Orientations Scale. The original GCOS consisted of 12 brief vignettes, each presenting a situation (such as having just been turned down for a job) followed by three possible responses to that situation: one that is impersonally oriented, one that is control oriented, and one that is autonomy oriented (Deci & Ryan, 1985). Because 8 of the 12 vignettes could be construed as achievement related, the scale was recently expanded to include 5 more explicitly interpersonal items (Hodgins et al., in press, Ryan, 1989). Each response is followed by a 7-point scale on which the respondent rates the extent to which that response—whether a behavior, thought, or feeling—would be characteristic of him or her in that situation. For example, participants are given the scenario: “Recently a position opened up at your place of work that could have meant a promotion for you. However, a person you work with was offered the job rather than you. In evaluating the situation you are likely to think. . . .” An autonomy orientation is measured by the response, “You would probably take a look at factors in your own performance that led to your being passed over.” A control orientation is measured by the response, “The other person probably ‘did the right things’ politically to get the job.” An impersonal orientation is measured by the response, “You really didn’t expect the job; you frequently get passed over.” Subscale scores are created by averaging respondents’ 17 ratings for that subscale. Higher scores on each subscale

indicate that the person has more of that particular orientation. The 17-item GCOS Autonomy subscale was used as a measure of reflective autonomy.

All three subscales of the GCOS have demonstrated good internal and test-retest reliability (α s and r s $> .70$) (Blustein, 1988; Deci & Ryan, 1985). The Autonomy subscale was unrelated to a scale measuring socially desirable responding (Deci & Ryan, 1985).

The ACL Autonomy scale. The ACL requires a person to circle any of 300 self-descriptive adjectives. The Autonomy scale consists of 44 items. Twenty-nine of the items are scored positively (scored +1 if circled and 0 if not circled) and 15 are scored negatively (scored +1 if not circled and 0 if circled). Positive adjectives are adventurous, aggressive, aloof, argumentative, arrogant, assertive, autocratic, confident, cynical, dissatisfied, egotistical, fault-finding, frank, hard-headed, headstrong, hostile, independent, indifferent, individualistic, irresponsible, opinionated, outspoken, rebellious, self-centered, self-confident, tactless, unconventional, undependable, and uninhibited; negative adjectives are cautious, conventional, cooperative, dependable, dependent, meek, moderate, obliging, self-denying, spineless, submissive, suggestible, tactful, timid, and tolerant. The sum of the +1's scored for the 44 autonomy adjectives was used as a measure of reactive autonomy.

Gough and Heilbrun (1983) report an internal reliability of .69 for the Autonomy scale and a test-retest reliability of .76 over 6 months. They also report that autonomy scores were unrelated to scores on a scale of social desirability.

The NEO-FFI. The NEO-FFI is a 60-item brief measure of the five-factor model of personality and includes 12-item scales of Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness (α s range from .74 to .89). Their validity has been supported by significant positive correlations with peer descriptions on corresponding NEO Personality Inventory (NEO-PI; Costa & McCrae, 1985) factors.

RESULTS AND DISCUSSION

Preliminary Analyses

The reactive autonomy scores derived from the ACL were adjusted for the number of adjectives checked by a given participant.⁴ All results re-

4. Autonomy scores on the ACL were significantly positively correlated with the number of adjectives checked on the scale, $r(139) = .41, p < .01$. Autonomy scores were therefore adjusted as follows:

$$\text{Adjusted reactive autonomy} = \text{Raw ACL autonomy} - (r * SD \text{ ACL autonomy} / SD \text{ number checked} * \text{number checked})$$

ported in this article for reactive autonomy are based on these adjusted scores.

A significant difference was obtained for men and women's scores on reflective autonomy, $t(139) = -2.17, p < .05$, but not for reactive autonomy, $t(139) = 1.58, p = .12$. Women scored significantly higher than men on reflective autonomy (standardized $M_s = .14$ and $-.24$, respectively). It should be noted that the original validation studies for GCOS and ACL measures of autonomy found significant and opposing sex differences. Thus, normative data based on thousands of respondents indicated that men score higher than women on reactive autonomy as measured by the ACL (Gough & Heilbrun, 1983). By contrast, normative data based on several hundred respondents revealed that women score higher than men on reflective autonomy as measured by the GCOS (Deci & Ryan, 1985).

Reactive Autonomy and the Causality Orientations

It was hypothesized that reactive autonomy would be positively related to a control orientation, unrelated to a (reflective) autonomy orientation, and negatively related to an impersonal orientation. The intercorrelations among reactive autonomy and the three causality orientations are presented in Table 1. This table also provides, in parentheses, the correlations obtained for the identical scales in Studies 2 and 3. It can be seen that the expected correlations emerged for reactive autonomy, which was significantly positively correlated with the control orientation, unrelated to the (reflective) autonomy orientation, and significantly negatively related to the impersonal orientation (although this last relation was not confirmed in Studies 2 and 3). Reflective autonomy was unrelated to a control orientation but significantly negatively related to an impersonal orientation.

The absence of a significant positive correlation between reactive and reflective autonomy supports the notion that these two measures of "autonomy" are assessing different constructs. That the two forms of autonomy showed divergent relations with a control orientation further testifies to the importance of differentiating them. The strong posi-

where r represents the correlation between ACL autonomy scores and the number of adjectives checked. This correction procedure is commonly used in motivation research to correct fantasy need for achievement scores for their relation to protocol length.

Table 1
Correlations of Adjective Checklist (ACL) Reactive Autonomy and
the General Causality Orientations Scale (GCOS) Subscales

	Factor			
	1	2	3	4
1. ACL autonomy	—			
2. GCOS autonomy	.14 (.10)	—		
3. GCOS control	.31** (.34**)	.10 (−.07)	—	
4. GCOS impersonal	−.21* (−.06)	−.32** (−.44**)	.08 (.04)	—

Note. $n = 141$ in Study 1. Numbers in parentheses are the correlations for the same scales in Studies 2 and 3 combined ($n = 115$).

* $p < .05$

** $p < .01$.

tive relation of reactive autonomy to the control orientation is consistent with Deci and Ryan's (1985) formulation and reflects the fact that, despite their oppositional tendencies, individuals high in reactive autonomy are attuned to reinforcement contingencies present in their interpersonal environment and tend to regulate their behavior on the basis of such contingencies. That both forms of autonomy were negatively related to the impersonal orientation indicates that people high on either form of autonomy share a tendency to feel confident in the relation between their behavior and outcomes.

Relation of the Two Forms of Autonomy to the Big Five Trait Factors

Hierarchical multiple regression analyses were performed in which participants' scores on each of the autonomy measures were regressed on the other autonomy measure (entered first), sex (entered second), the five trait factor scores (entered together as a block in a third step), and the five Trait \times Sex interaction product terms (entered together as a block in a fourth step). Because none of the Sex \times Trait interaction effects approached significance, we report the results after the third step of each regression analysis.

The regression on the ACL measure of reactive autonomy revealed a highly significant multiple R of .61, $F(7, 109) = 9.36$, $p < .00001$. Reactive autonomy was significantly negatively related to Agreeableness, $\beta = -.54$, $t(109) = -6.62$, $p < .0001$, and significantly positively re-

lated to both Openness to Experience, $\beta = .29$, $t(109) = 3.35$, $p < .01$, and Extraversion, $\beta = .27$, $t(109) = 3.15$, $p < .01$. No other effects approached significance. These results mirror those obtained by Piedmont et al. (1991), suggesting that reactive autonomy, as measured by the ACL, represents a blend of three of the Big Five traits.

The regression on reflective autonomy was not significant, multiple $R = .30$, $F(7, 109) = 1.53$. None of the individual trait factor scores were significantly related to reflective autonomy ($ps > .20$). Thus, reflective autonomy, which concerns the manner in which individuals interpret situations and regulate their behavior, appears to have no strong relations to the broad, social-emotional, behavioral consistencies tapped by the Big Five trait factors. Some caution is necessary in interpreting this null finding, however, given the fact that reflective autonomy is assessed via hypothetical scenarios rather than in the straightforward behavioral descriptions included on trait measures. Our reliance on a brief measure of the Five Factor model may also have obscured possible relations between reflective autonomy and particular facets of the Big Five trait dimensions.

The results of Study 1 support the usefulness of distinguishing between reactive and reflective autonomy. Measures of the two constructs were unrelated to each other and showed different relations to a control-determined regulatory style and to the Big Five trait factors of personality. Importantly, it was also shown that the two types of autonomy sometimes predict similarly to a given outcome. Thus, both reactive and reflective autonomy were negatively related to impersonal, helpless forms of self-regulation.

Study 2

Study 2 sought to examine whether the two forms of autonomy were related to women's daily experience of moods and to the use of mood-regulation strategies. Based on previous research linking reflective autonomy with positive self-regard, optimism, the use of effective coping strategies, and high levels of ego maturity, reflective autonomy was expected to be associated with perceiving more positive events in everyday experience, reporting more positive affect and less negative affect, and reporting the use of effective rather than ineffective mood regulation strategies (e.g., problem-directed action vs. passive acceptance). By contrast, because of its association with maladaptive coping and poor adjustment, reactive autonomy was expected to be associated with per-

ceiving more negative daily events, experiencing more negative affect, and relying on ineffective rather than effective mood regulation strategies. Daily moods and mood regulation strategies were assessed with an interval-contingent, experience sampling methodology developed by Larsen (1993).

Study 2 again included an assessment of the Big Five trait factors because of evidence that they are implicated in the experience of mood. Specifically, Neuroticism is consistently associated with the experience of negative affect, whereas Extraversion is associated with the experience of positive affect (Costa & McCrae, 1984; Emmons & Diener, 1985). Following Shaver and Brennan's (1992) caution, we considered it important to show that the two forms of autonomy would relate to daily experiences after controlling for the effects of the five trait factors.

METHOD

Participants

Fifty-five female McGill University students were recruited via an advertisement in the university newspaper. All students were from out-of-province and were planning to go home for their winter break. Questionnaires were administered in groups of three to nine participants. All students received \$40 for their participation in the study.

Procedure

Each student completed a battery of questionnaires in the lab, which included the NEO-FFI, the GCOS, and the ACL.

The daily recording of mood was then explained to participants. They were instructed to complete a mood checklist twice a day for 2 weeks; the first week during the school semester and the second week while at home for the winter break. The checklists were to be completed once in the middle of the day (sometime between 1 P.M. and 4 P.M.) and once toward the end of the day (sometime after 9 P.M.). The checklists inquired about (a) participants' mood, (b) which event had the most impact on their mood, and whether this impact was positive, mixed, or negative, and (c) which strategies were used to regulate their mood. The various mood regulation strategies were defined and examples were provided.

The checklists were packaged together in two 3-inch \times 2-inch booklets, one for recording at school and one for recording at home over the winter break. Participants were encouraged to carry the booklets with them during the weeks they were recording their moods. Participants were instructed to

return the booklets completed at school within 10 days of the questionnaire session. Participants were phoned by the experimenter prior to the winter break and reminded to complete the second booklet while at home for the holidays. Participants handed in the second booklet when they returned for the winter semester. Fifty-one participants completed all of the mood-related reports and are included in the mood analyses that follow.

Measures

Personality measures. The GCOS, ACL, and NEO-FFI were administered. These scales are described in Study 1.

Positive and Negative Affect Schedule (PANAS). The PANAS (Watson, Clark, & Tellegen, 1988) contains two 10-item scales that measure positive affect (PA) and negative affect (NA) separately. The 10 PA items are interested, excited, strong, enthusiastic, proud, alert, inspired, determined, attentive, and active. The 10 NA items are distressed, upset, guilty, scared, hostile, irritable, ashamed, nervous, jittery, and afraid. Participants are required to indicate on a 5-point scale (1 = not at all; 5 = extremely) to what extent they felt each emotion over the last few hours. Watson et al. (1988) presented evidence that the PANAS scales are reliable and valid. When used with short-term instructions, these scales are sensitive to fluctuations in mood.

Valence of daily events. After completing the mood checklist, participants indicated which event had the biggest impact on their mood over the past few hours. They also indicated whether the impact was positive, negative, or mixed.

Mood strategies inventory. A mood strategies inventory developed by Larsen (1993) was slightly altered and expanded. The inventory listed the following 11 strategies along with definitions and examples: (a) performing a pleasant, rewarding activity; (b) cognitive reappraisal; (c) thinking about something good about yourself; (d) problem-directed action; (e) thinking about something positive in the future; (f) consumption-based self-indulgence; (g) spending time with others; (h) spending time alone; (i) passive acceptance; (j) distraction; and (k) venting. Larsen's research showed that strategies (a) through (e) were effective at lifting moods. Strategies (f) and (g) were shown to be partly effective, whereas strategies (h) through (k) were putatively ineffective. Participants used 7-point scales to indicate the extent to which they used each strategy to affect their mood. Participants were told that they did not have to be conscious ahead of time of using the strategy to affect their mood; they were able to rate a strategy if they later realized that it was something they had used.

Aggregation and creation of summary variables. The individual items on the PA and NA scales of the PANAS were combined by calculating participants' mean response across the 10 items. The total NA and PA scores were then combined across the 28 separate reports made at school and at home.

The valence of daily events were converted to a 3-point scale, with higher scores reflecting more negative impact. The mean of the valence of daily event ratings was calculated across the 28 completed ratings.

We were primarily interested in examining participants' use of effective (*a-e*) versus ineffective (*h-k*) strategies. Therefore, participants' scores on each of these strategies were summarized over the 28 days and were combined to form an effective strategy index and an ineffective strategy index. A global measure of reliance on effective versus ineffective strategies was computed by subtracting the mean summary score for ineffective strategies from the mean summary score for effective strategies.

RESULTS AND DISCUSSION

Relation of Reactive and Reflective Autonomy to the Big Five Trait Factors

Hierarchical multiple regression analyses were performed in which participants' scores on each of the autonomy measures were regressed on the other autonomy measure (entered first) and the five trait factor scores (entered together as block). The regression on the ACL measure of reactive autonomy revealed a highly significant multiple R of .65, $F(6, 48) = 5.98, p < .001$. Reactive autonomy was significantly negatively related to Agreeableness, $\beta = -.62, t(48) = -5.40, p < .0001$, and significantly positively related to Openness to Experience, $\beta = .27, t(48) = 2.04, p < .05$. No other predictors approached significance. However, it is worth noting that reactive autonomy was positively related to Extraversion, $\beta = .16, p = .24$.

The regression on reflective autonomy was not significant, multiple $R = .44, F(6, 48) = 1.89, ns$. None of the individual trait factor scores were significantly related to reflective autonomy ($ps > .10$).

The results replicate Study 1 in showing that the Big Five trait factors were predictive of reactive autonomy but not reflective autonomy. More precisely, reactive autonomy appears to be strongly associated with Disagreeableness and Openness to Experience, with a possible positive relation with Extraversion. The lack of relation between reflective autonomy and traits measured on the NEO-FFI suggests that it has little to do with the type of cross-situational consistencies in social-

Table 2
Regression Coefficients of Mood-Related Outcomes by Autonomy and Trait Measures

Personality variable	Outcome			
	Valence of events	Negative affect	Positive affect	Effective strategies
Neuroticism	.38*	.36*	-.12	-.09
Extraversion	.05	.21	.36*	.39*
Openness	.22	-.04	.10	-.06
Agreeableness	.03	.17	.07	-.06
Conscientiousness	.13	-.14	.08	.14
Reactive autonomy	.42*	.23 ^Δ	-.10	-.09
Reflective autonomy	-.29*	-.34*	-.02	.26 ^Δ

Note. $n = 51$.

* $p < .05$

^Δ $p < .10$.

emotional behavior that are captured by the Big Five trait taxonomy. Instead, we believe reflective autonomy concerns how individuals interpret situations, especially in terms of offering opportunities to express one's choicefulness.

Relation of Traits and Autonomy to Daily Event and Mood Measures

Hierarchical multiple regressions were performed in which participants' summary scores for daily events, positive affect, negative affect, and effective mood strategies were regressed on the five trait factor scores from the NEO-FFI (entered together as a first block) and the two autonomy measures (entered together as a second block). Such analyses determine whether the two measures of autonomy account for a significant portion of the variance in the dependent measures, after controlling for the predictive impact of the five trait factors. Table 2 provides the standardized regression coefficients for each of the independent variables.

The regression on valence of daily events yielded a significant multiple R of .53, $F(7, 43) = 2.38$, $p < .05$. As shown in Table 2, Neuroticism and reactive autonomy were both significantly related to reporting more negative events, whereas reflective autonomy was significantly

related to reporting fewer negative events. No other effects approached significance.

The regression on negative affect yielded a significant multiple R of .55, $F(7, 43) = 2.73$, $p < .05$. Neuroticism was significantly related to reporting greater negative affect. Reactive autonomy was marginally related to reporting greater negative affect, whereas reflective autonomy was significantly related to reporting less negative affect. No other effects approached significance.

The regression on positive affect yielded a marginally significant multiple R of .48, $F(7, 43) = 1.87$, $p < .10$. Only Extraversion was significantly related to reporting positive affect (see Table 2).

The regression on effectiveness of strategies yielded a significant multiple R of .55, $F(7, 43) = 2.61$, $p < .05$. Table 2 shows that Extraversion was significantly related to reporting the use of more effective strategies to regulate one's mood, and reflective autonomy was marginally related to using more effective strategies.⁵

The results of Study 2 suggest that the two forms of autonomy relate to qualitatively different affective experiences in daily life. Reactive autonomy was associated with perceiving a greater number of negative daily events and with reporting somewhat higher levels of negative affect. By contrast, reflective autonomy was related to perceiving a greater number of positive daily events, reporting low levels of negative affect, and reporting the use of effective rather than ineffective mood regulation strategies. These findings were obtained after controlling for the effects of the Big Five trait factors on reports of daily events and moods. The association of reflective autonomy with less negative affect and with the use of somewhat more effective mood regulation strategies is consistent with a number of studies showing positive associations to other indices of adaptive behavior. However, while previous studies relied on global inventories to assess well-being, we employed a rigorous daily recording methodology.

5. In order to more specifically examine the relation of mood regulation strategies to the two types of autonomy, stepwise multiple regressions were performed in which each type of autonomy was regressed on the 11 regulation strategies. The regression for reactive autonomy revealed no effects approaching significance. The regression for reflective autonomy revealed significant effects for the use of passive acceptance, $\beta = -.34$, $t(49) = -2.53$, $p = .01$, and for the use of positive thoughts about the future, $\beta = .53$, $t(49) = 3.48$, $p < .01$. Thus, participants high in reflective autonomy were less likely to accept their moods passively and more likely to try to lift their moods by thinking about something positive in the future.

Study 3

Study 3 examined the relation of reactive and reflective autonomy to everyday social experiences. The two forms of autonomy were expected to be associated with qualitatively different types of social experiences, depending on whether interactions involved peers or authority figures. Specifically, it was hypothesized that reflective autonomy would be positively associated with having pleasant and intimate interactions with peers, whereas reactive autonomy was expected to be unrelated to the valence and intimacy of peer interactions. By contrast, reactive autonomy was expected to be associated with experiencing interactions with authority figures as relatively unpleasant, whereas reflective autonomy was expected to be unrelated to the valence of such interactions. This prediction was based on the fact that reactive autonomy entails resistance to, and resentment of, perceived influence attempts. The perception of such influence would seem most likely in relation to authority figures.

The social interactions of 60 college students were examined using an event-contingent behavior sampling technique, the Rochester Interaction Record (RIR; Wheeler & Nezlek, 1977). The RIR requires participants to monitor all social interactions that are longer than 10 minutes in terms of various qualitative features such as pleasantness and intimacy. The RIR is preferred to global questionnaires regarding social experiences because it reduces biases due to selective memory, distorted reappraisal, and aggregation errors.

METHOD

Participants

Thirty-one women and 29 men were recruited through an advertisement in the university newspaper.

Procedure

Groups of participants came to the laboratory for a 1-hour session during which they completed a battery of questionnaires and were instructed in how to use the RIR (Wheeler & Nezlek, 1977). Participants completed the RIR for 7 days and then returned to the laboratory to complete a brief questionnaire concerning frequent interaction partners. They were then debriefed and given \$25 for their participation.

Measures

Personality measures. The GCOS and ACL were administered. (See Study 1.)

The Rochester Interaction Record. The RIR was employed to assess everyday social interactions (Wheeler & Nezleck, 1977). Each record included the day, time, and length of the interaction, initials of the interaction partner(s), two ratings related to the valence of social interactions (pleasantness and satisfaction), and three rating dimensions related to sharing (amount of intimacy, level of self-disclosure, level of other-disclosure). All ratings were made on 7-point scales. Ratings of influence and initiation were also made but are not discussed in the Results section. Neither reactive nor reflective autonomy was associated with these ratings.

The interaction record was to be completed for every interaction that lasted 10 minutes or longer. An interaction was defined as any encounter in which the participants attended to one another and adjusted their behavior in response to the other (Wheeler & Nezleck, 1977). The reliability and the validity of the RIR are described at length by Reis and Wheeler (1991). Participants were urged to fill out a record as soon as possible after each interaction. This was made easier by packaging the RIR into an easy-to-carry booklet.

Aggregation of RIR Data

As in previous studies, ratings of pleasantness and satisfaction ($r = .73$) were averaged to create a valence index; ratings of intimacy, self-disclosure, and other-disclosure (mean $r = .83$) were averaged to form a sharing index (cf. Hodgins et al., in press). Two sets of summary measures were then created for these combined ratings: one across all records except those involving an authority figure (we will refer to these as peer interactions) and one for the subset of interactions involving an authority figure (e.g., parent, boss, instructor). Forty-one participants reported at least one interaction with a parent, supervisor, or instructor.

RESULTS AND DISCUSSION

Preliminary Results

Participants reported an average of 37.7 interactions with peers across the week (range = 8 to 58) and 2.0 with authority figures (range = 0 to 9). Ratings of valence and sharing were significantly positively related for peer interactions, $r(58) = .44, p < .01$, but not for interactions with authority figures, $r(39) = .24$.

Table 3
Regression Coefficients of Autonomy Measures by Rochester
Interaction Record (RIR) Factors

	Sex	Reflective autonomy	Reactive autonomy
Peer			
Valence	-.20	.26*	.19
Sharing	.08	.27*	.00
Authority			
Valence	-.35*	.07	-.32*
Sharing	-.19	-.13	-.04

Note. Sex was scored 1 for men and 2 for women. $n = 60$.

* $p < .05$.

Paired t tests were conducted to examine differences in valence and sharing as a function of interaction type. A significant difference emerged for valence, $t(38) = 2.69$, $p < .01$, indicating that interactions with authority figures were rated as less pleasant than peer interactions ($M_s = 4.37$ and 5.48 , respectively). There was no difference in sharing as a function of type of interaction.

Relation of the Two Forms of Autonomy to Peer Interactions

Hierarchical multiple regressions were performed in which participants' aggregate scores for valence and sharing across peer interactions were regressed on sex (entered as a first step), the two autonomy measures (entered together as a second block), and the two Sex \times Autonomy interaction terms (entered as a third block). No interaction with sex was significant in any analysis, so we report results for the second step of the regressions. Table 3 provides the standardized regression coefficients for each of the independent variables.

The regression on valence in peer interactions yielded a multiple R of .38, $F(3, 55) = 3.09$, $p < .05$. Table 3 shows that reflective autonomy was significantly positively associated with reporting more pleasant interactions with peers, whereas reactive autonomy was unrelated to reported valence in these interactions.

The regression on sharing in peer interactions yielded a multiple R of .28, $F(3, 55) = 1.54$, $p = .21$. Table 3 shows that reflective autonomy was significantly positively associated with reporting greater

sharing during peer interactions, whereas reactive autonomy was unrelated to reported sharing in these interactions. This relation needs to be viewed with caution, however, given that the overall regression model was nonsignificant.

Relation of the Two Forms of Autonomy to Authority Interactions

Identical regressions were performed using aggregate scores for valence and sharing across all interactions involving an authority figure as the dependent variables. No interaction with sex was significant in any analysis, so we report results for the third step of the regressions. Table 3 provides the standardized regression coefficients for each of the independent variables.

The regression on valence in interactions with authority figures yielded a multiple R of .46, $F(3, 36) = 3.16, p < .05$. Sex was significantly related to valence ratings in such interactions, reflecting the fact that women rated interactions with authority figures as less pleasant than men did. Table 3 also shows that reactive autonomy was significantly associated with reporting more unpleasant interactions with authority figures, whereas reflective autonomy was unrelated to reported valence in such interactions.⁶ The regression on sharing in authority interactions yielded no effect approaching significance ($ps > .10$).

The positive association of reflective autonomy with valence and intimacy in peer interactions confirms the recent findings of Hodgins and colleagues (in press), who also employed the RIR methodology. The present findings support their conclusion that there is no necessary opposition between autonomy and having close, warm, interpersonal relationships. When autonomy is defined in positive terms as the freedom to act in self-determining ways, it is entirely compatible with a strong sense of relatedness. Hodgins et al. suggested that the social benefits of reflective autonomy stem from the capacity to engage in open and nondefensive interactions with others.

Reactive autonomy was unrelated to the quality of interactions with

6. To better understand the relation between autonomy and unpleasant interactions with authority figures, interactions were sorted into those that involved parents and those that involved supervisors (at work or school). Partial correlations controlling for reflective autonomy indicated that reactive autonomy was associated with somewhat lower valence ratings for interactions with supervisors ($pr = -.43$) than parents ($pr = -.24$).

peers. However, as predicted, students who were high in reactive autonomy described their interactions with authority figures as particularly unpleasant. This makes sense because the essence of Murray's (1938) conception of (reactive) autonomy was a resentment about others trying to influence one's thoughts or behavior. In fact, one way in which Murray attempted to measure autonomy was by asking people whether they often act contrary to the wishes of their parents and whether they disregard rules and regulations.

GENERAL DISCUSSION

Two distinct conceptions of autonomy have evolved in social-personality psychology. The pioneering work of Murray (1938) gave rise to an interpersonal conception of autonomy that highlighted people's desire to resist influence or coercion. We proposed calling this form of autonomy "reactive" and suggested that it can be measured with the ACL Autonomy subscale. The work of deCharms (1968) and Deci and Ryan (1985) gave rise to an intrapersonal conception of autonomy that emphasizes people's desire to feel like an origin of their actions and to have input into determining their behavior. We proposed calling this form of autonomy "reflective" and suggested that it can be measured with the Autonomy subscale of the GCOS.

Our results indicated that reactive and reflective measures of autonomy are only slightly positively related to each other, suggesting that there is no necessary relation between feeling like the origin of one's actions and resisting interpersonal influence. Interestingly, correlational analyses with the other subscales of the GCOS suggested that reactive autonomy bears greater resemblance to Deci and Ryan's (1985) conception of an orientation toward control than to their conception of autonomy. A control orientation involves organizing one's behavior primarily with respect to external reinforcement contingencies. Deci and Ryan (1985) noted that although a control orientation is typically associated with compliant behavior in response to threats, inducements, or expectations, in some instances it may involve rebellion against controls and doing just the opposite of what is demanded. It is this aspect of a control orientation that is captured by reactive autonomy.

A review of the literature using the ACL and GCOS revealed that reactive and reflective autonomy had largely nonoverlapping nomological networks. Reactive autonomy had been shown to be related to resistance to persuasion, indifference to the feelings of others, dislike

of work settings that encourage supportiveness and teamwork, and a lack of persistence in following through on one's activities. Reflective autonomy had been shown to be related to psychosocial maturity, integration in personality, and a confident and persistent approach toward one's goals. Studies 1 and 2 extended these distinctions by showing that the two forms of autonomy displayed different relations to the Big Five trait factors of personality. Reactive autonomy was significantly negatively related to Agreeableness, indicating that people who score high in reactive autonomy are likely to possess an antagonistic, nonaccommodating interpersonal orientation (McCrae & John, 1992). Reactive autonomy was also significantly positively associated with Openness to Experience and Extraversion, indicating that those who score high are likely to be curious and imaginative, as well as sociable and outgoing. This pattern of results exactly matches those obtained by Piedmont et al. (1991). Together, these studies suggest that reactive autonomy can indeed be located on the map formed by the Big Five trait dimensions.

By contrast, our findings suggest that reflective autonomy cannot be subsumed by the Big Five trait taxonomy. In Studies 1 and 2, the Big Five trait factors were shown to be unrelated to reflective autonomy. We believe this supports McAdams's (1992) contention that not all personality variables can be reduced to the Big Five trait factors and that personality researchers must acknowledge the existence of multiple levels to personality with traits representing only one level.

Study 2 showed that reflective and reactive autonomy were related to everyday affective experiences in different ways. Thus, reflective autonomy was significantly related to perceiving more positive daily events, whereas reactive autonomy was associated with perceiving more negative daily events. Reflective autonomy was significantly negatively related to the experience of unpleasant emotions, whereas reactive autonomy was marginally positively related to such emotions. The study also showed that reflective autonomy was associated with using effective rather than ineffective strategies to manage moods. These results suggest that reflective autonomy is more likely to be associated with adaptive functioning than reactive autonomy.

Study 3 showed that reflective autonomy appears to foster intimate and pleasant interactions with peers, whereas reactive autonomy is unrelated to the quality of peer interactions. Study 3 also suggested that reactive autonomy appears to make individuals vulnerable to negative interactions with authority figures. We suspect that the negative response to authorities occurs because parents and teachers often attempt

to influence or regulate the behavior of college students. An individual high in reactive autonomy will respond to such influence with anger and resentment. Future research should include a more detailed account of the interaction sequences that elicit the negative evaluations of individuals high in reactive autonomy.

The present study represents only an initial attempt to distinguish among different forms of autonomy. We do not wish to claim that there are only two distinct forms of autonomy. (A more complete discussion of the ways in which autonomy can be conceptualized is provided by Ryan, 1993.) We also acknowledge that the constructs we sought to differentiate are bound to very different assessment methodologies. The ACL relies on adjectival self-descriptions to infer motivational concerns, whereas the GCOS relies on responses to hypothetical vignettes to infer self-regulatory orientations. Because reactive and reflective autonomy are measured by such different instruments, it is possible that the distinctions we made between them are method-driven rather than construct-driven. For example, it can be argued that the ACL measure of reactive autonomy is more similar than the GCOS measure of reflective autonomy to the types of items included on the NEO-FFI and that this may explain why only reactive autonomy was associated with traits. It must also be highlighted that we operationalized reactive autonomy in terms of the scale from the ACL. It would be wrong to assume that other autonomy scales derived from Murray's conception would necessarily show an identical pattern of correlates to that obtained with the ACL. For example, it appears that the Autonomy scale from the Jackson (1974) Personality Research Form displays a different pattern of correlations with the Big Five trait taxonomy from what we obtained for the ACL scale (Costa & McCrae, 1988). Future work should include other measures of autonomy besides those included on the GCOS and the ACL.

One final important question is whether it is useful to describe reactive and reflective autonomy as two distinct forms of "autonomy." Ryan (1991) defines autonomy as a process of self-rule "which entails a sense of freedom, identity, and responsibility" (p. 226). He notes that the striving for autonomy often takes the contorted form of egoistic achievement and an emphasis on freedom from influence or intrusion by others. He adds that "in the ideology that derives from these conditions, self-determination is typically defined as independence and detachment from others" (p. 222). From this perspective, what we have called reactive autonomy would be classified as a blend of indepen-

dence and detachment. We opted to frame our discussion in terms of two forms of autonomy only because of the historical usage of this term to describe both Murray's (1938) construct and the more recently elaborated construct of deCharms, Ryan, and Deci. In the future, it may be better to follow Ryan (1991, 1993) in reserving the term "autonomy" for what we have called reflective autonomy, and which Ryan (1991) would suggest represents "a subjective sense of endorsement, volition and self-direction in one's action" (p. 225).

In conclusion, the present study offered evidence that reactive and reflective autonomy are only loosely related to each other and have distinct relations to everyday social and affective experiences. Distinguishing between reactive and reflective forms of autonomy will avoid terminological confusion and perhaps help us understand more fully how autonomy can develop and manifest itself.

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