Sociocognitive Self-Regulatory Mechanisms Governing Transgressive Behavior

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This longitudinal research examined a structural model of the self-regulatory mechanisms governing transgressive conduct. Perceived academic and self-regulatory efficacy concurrently and longitudinally deterred transgressiveness both directly and by fostering prosocialness and adherence to moral self-sanctions for harmful conduct. The impact of perceived social self-efficacy was mediated through prosocialness. Moral disengagement and prosocialness affected transgressiveness through the mediating influence of irascible affectivity and hostile rumination. Ruminative affectivity, in turn, both concurrently and longitudinally affected transgressiveness. Moral disengagement also contributed independently to variance in transgressiveness over time. This pattern of relations was obtained after controlling for prior transgressiveness. The structural model was replicated across gender and provided a better fit to the data than did several alternative models.

Social cognitive theory analyzes human self-development, adaptation, and change from an agentic perspective (Bandura, 1999b, 2001). The capacity to exercise some measure of control over one’s thought processes, motivation, affect, and action operates through mechanisms of personal agency. Diverse lines of research have documented the prominent role that self-regulatory mechanisms play in the development and pursuit of socially valued life courses (Bandura, 1995, 1997; Caprara & Cervone, 2000; Cervone & Shoda, 1999; Schunk & Zimmerman, 1994; Zimmerman, 1989). The longitudinal research presented in this article extends this line of inquiry to self-regulatory mechanisms governing transgressive forms of behavior.

Among the mechanisms of human agency, none is more focal or pervasive than beliefs of personal efficacy. In social cognitive theory, the self-efficacy belief system is the foundation of human motivation, well-being, and personal accomplishments. Unless people believe that they can bring about desired outcomes and forestall undesired ones by their actions, they have little incentive to act or to persevere in the face of difficulties and adversities. Whatever other factors may operate as guides and motivators, they are rooted in the core belief that one has the power to influence one’s own functioning and life circumstances.

Perceived self-efficacy plays a pivotal role in causal structures because it affects courses of actions not only directly but also through its impact on cognitive, motivational, and affective determinants. Such beliefs influence whether people think productively, self-debilitatingly, pessimistically, or optimistically; how well they motivate themselves and persevere in the face of adversities; their vulnerability to stress and depression; and the life choices they make (Bandura, 1995, 1997; Maddux, 1995; Schwarz, 1992). These diverse effects identify the multiple pathways through which a strong sense of efficacy oriented toward positive self-development can affect transgressive behavior. It does so, in large part, by promoting prosocialness, curtailing the propensity to disengage moral self-sanctions from socially alienating and harmful conduct, and countering ruminative and vengeful affectivity (Bandura, Barbaranelli, & Caprara, 1996a; Bandura, Barbaranelli, & Caprara, 1999). That a resilient sense of personal efficacy is a vital personal resource has been amply documented by meta-analyses of findings from diverse spheres of functioning by heterogeneous populations in a variety of environmental conditions (Holden, 1991; Holden, Moncher, Schinke, & Barker, 1990; Multon, Brown, & Lent, 1991; Stajkovic & Luthans, 1998).
A growing body of evidence shows that efficacy beliefs are linked to domains of functioning rather than conforming to an undifferentiated trait (Bandura, 1997). In the present study, we examined the role of three major domains of perceived personal efficacy that have been verified cross-culturally (Pastorelli et al., in press) and shown to be predictive of developmental outcomes (Bandura, 1997). These domains include academic, social, and self-regulatory efficacy to resist peer pressure for transgressive activities. However, social cognitive theory identifies several processes that can produce some covariation even across distinct activity domains. One such process involves metacognitive self-regulation. Proficient performance is partly guided by higher order self-regulatory skills, which include generic skills for evaluating task demands, constructing alternative options, setting proximal goals to guide one’s efforts, and creating self-incentives to sustain engagement in taxing activities and to manage stress and debilitating intrusive thinking. Such generalizable self-regulatory skills enable people to improve their performance in a variety of activities (Meichenbaum & Asarnow, 1979; Zimmerman, 1989). Generic metacognitive strategies taught in one realm of activity tend to be used in other activity domains (Bandura, Jeffery, & Gajdos, 1975).

A second process that can promote cross-domain covariations concerns beliefs in one’s learning efficacy. Perceived learning capability affects how people approach the mastery of new challenges. Having achieved success in a particular activity domain can create a more general sense of efficacy to learn in other life situations. To the extent that people consider their self-regulatory capabilities and learning efficacy in their self-appraisals, they will exhibit at least some generality in their sense of personal efficacy across different activities.

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Self-regulatory mechanisms through which moral agency is exercised are of special relevance to the self-management of transgressive behavior. In social cognitive theory (Bandura, 1999a), moral agency has dual aspects—inhibitive and proactive. The inhibitive form of morality is expressed in the power to refrain from behaving inhumanely. The proactive form of morality is expressed in the power to behave humanely. After individuals adopt personal standards, their negative self-sanctions for actions that violate their standards and their positive self-reactions for conduct faithful to their moral standards serve as the regulatory influences (Bandura, 1991). These self-reactive influences serve as the motivational and cognitive regulators of moral conduct.

Personal standards do not function as invariant internal regulators of conduct, however. Self-sanctions do not impinge on conduct unless they are activated, and there are numerous sociocognitive maneuvers by which moral self-reactions can be selectively disengaged from detrimental conduct. In the conception of moral agency, social cognitive theory specifies eight mechanisms of moral disengagement that operate at different points in the control of behavior by moral self-sanctions (Bandura, 1991, 1999a). They center on the construal of injurious conduct itself, the sense of personal agency for the actions taken, the representation of the injurious effects that flow from actions, and the characterization of the recipients of maltreatment.

One set of disengagement practices operates on the cognitive construal of the conduct itself. Through moral justification, detrimental conduct is made personally and socially acceptable by portraying it as serving socially worthy or moral purposes (Kelman & Hamilton, 1989; Rapoport & Alexander, 1982; Reich, 1990; Sanford & Comstock, 1971). Language shapes the thoughts on which actions are based. Sanitizing euphemisms and convoluted language is widely used to make harmful conduct look respectable or benign (Bollinger, 1982; Diener, Dineen, Endresen, Beaman, & Fraser, 1975; Lutz, 1987). How behavior is viewed is also colored by what it is compared with. Through advantageous exonerative comparison, detrimental conduct can lose its repugnancy or even appear benevolent by contrasting it with more flagrant inhumanities (Bandura, 1991).

Moral control operates most strongly when people regard themselves as contributors to harmful outcomes. The second set of disengagement mechanisms operates by obscuring, minimizing, or disclaiming the agentive role in the harm that one causes. This disengagement is achieved by displacement and diffusion of responsibility (Bandura, Underwood, & Fromson, 1975; Diener, 1977; Milgram, 1974; Zimbardo, 1995). Further ways of weakening moral control operate by misrepresenting the harm caused by one’s conduct (Klass, 1978). As long as the harmful effects are ignored, minimized, distorted, or disbelieved, there is little reason for self-sanctions to be activated.

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The final set of disengagement mechanisms operates on the recipients of detrimental acts. Ascription of blame to the victims for their plight or to compelling circumstances can serve self-exonerative purposes (Crick & Dodge, 1994; Darley, Klosos, & Zanna, 1978; Ferguson & Rule, 1983; Weiner, 1986). The strength of moral self-sanctions also depends partly on how perpetrators view those whom they maltreat. To perceive another person as human activates, through perceived similarity, empathic reactions that counteract cruelty (Bandura, 1992). However, self-censure for cruel conduct can be disengaged by dehumanization that strips people of human qualities or invests them with demonic or bestial qualities (Bandura, Underwood, et al., 1975; Haritos-Fatourou, 1988; Keen, 1986).

A substantial body of evidence has demonstrated the disinhibitory power of moral disengagement. The moral disengagement is shown in the perpetration of large-scale inhumanities (Andrus, 1969; Bandura, 1990; Kelman & Hamilton, 1989; Rapoport & Alexander, 1982; Reich, 1990) and social punitiveness in laboratory conditions conducive to disengagement of moral self-sanctions (Bandura, Underwood, et al., 1975; Diener, 1977; Milgram, 1974; Tilker, 1970; Zimbardo, 1969). Research in which proneness to moral disengagement is assessed verifies some of the processes through which it is presumed to operate. To justify and disown responsibility for the harm done to others and to dehuman-
Self-regulatory mechanisms in transgressiveness. Effective moral disengagement also frees one from the restraints of self-censure experienced as anticipative guilt for detrimental conduct. Self-exoneration for wrongdoing fosters a self-righteousness that not only justifies one's conduct but also breeds inimical rumination. Indeed, high moral disengagers experience low guilt over injurious conduct, are less prosocial, and are more prone to vengeful rumination (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996a).

Prosocialness operates as another influential factor in the posited causal structure. In recent years, a conceptual shift has been witnessed from the prevailing focus on the impact of negative risk factors on developmental trajectories toward the influential role of positive enablement factors in shaping the directions that lives take. Prosocialness, as reflected in cooperativeness, helpfulness, sharing, and empathicness, is one such factor that helps to promote advantageous self-development (Bandura et al., 1996b; Caprara, Barbaranelli, Bandura, & Pastorelli, 2000; Eisenberg & Fabes, 1998; Patterson, Reid, & Dishion, 1992; Wentzel, 1991). A prosocial orientation also deters aggressive conduct by fostering social networks conducive to harmonious relationships and empathic and vicarious emotional arousal over the suffering of others (Bandura, 1992; Feshbach & Feshbach, 1986; Miller & Eisenberg, 1988).

An agentic perspective assigns a prominent role to self-generated emotional arousal and affect regulation in the self-management of socioemotional life (Bandura, 1997, 1999b). Situationally induced anger arousal has been shown to increase the likelihood and intensity of injurious behavior (Berkowitz, 1993; Zillmann, 1983). People live extensively in a psychic environment that is largely of their own making. The instigators to detrimental conduct often involve problems of thought. Anger arousal dissipates with time, but it can be repeatedly regenerated by cognitive self-arousal (Bandura, 1973). Many people are quick to rouse themselves into angered states by ruminating over perceived insults, inequities, and indignities. Anger arousal often fuels retaliative schemes. Hostile ruminative affectivity not only distorts thinking but also predisposes people to untoward conduct, especially if combined with infirm capability for affect self-regulation. The behavioral effects of ruminative affectivity have been corroborated experimentally in simulated conditions in which participants can inflict shocks of varying intensity on provocateurs. Individuals who have a low threshold for anger arousal and are prone to hostile rumination behave more punitively than those who are slower to anger and disinclined to dwell on grievances and possible retaliations (Caprara, Coluzzi, Mazzotti, Renzi, & Zelli, 1985; Caprara, Renzi, Alcini, D’Imperio, & Travaglia, 1983; Caprara, Renzi, Amolini, D’Imperio, & Travaglia, 1984; Caprara et al., 1986).

The conceptual analysis presented thus far has examined how particular sociocognitive determinants separately foster or deter detrimental conduct and the supportive empirical evidence for their contributory role. In the present study, we examined how these various self-regulatory determinants operate in concert within an integrative causal structure in governing transgressive behavior. Transgressiveness encompassed varied detrimental conduct, including interpersonal breaches by lying, cheating, and stealing; destructiveness; verbal and physical assaults; and substance abuse. We proximally and longitudinally analyzed the paths of influence.

Figure 1 summarizes schematically the direct and mediated links in the posited structural model. Perceived self-efficacy to regulate one’s academic activities and to ward off peer pressure to engage in detrimental activities both directly and mediationally affects transgressive behavior by supporting prosocialness, adherence to moral self-sanctions, and low proneness to vindictive rumination. In addition, perceived social efficacy affects transgressive conduct through the mediated effects of prosocialness.

We posited the following structural relations among the mediating factors. Children who exhibited high prosocialness, as manifested in helping, sharing, and empathicness, would refrain from ruminative vengefulness toward others. Those who strongly ad-

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**Figure 1.** Posited causal structure through which perceived self-efficacy and moral disengagement operate in concert with other sociocognitive factors to concurrently and longitudinally affect transgressive conduct.
hered to moral self-sanctions against hurting others would be more likely than high moral disengagers to act prosocially in their interpersonal relationships and to exhibit a low propensity for irascible affectivity and hostile rumination. Low ruminative affectivity, in turn, would reduce the likelihood of transgressive behavior. Prosocialness and moral disengagement would concurrently and longitudinally affect transgressive behavior both directly as well as mediational through ruminative affectivity.

Method

Participants

The participants in this longitudinal study were 564 children tested initially at 11 years of age with staggered annual starts for two separate cohorts. There were 304 boys and 260 girls. We selected the participants from two schools in a residential community located near Rome, Italy. For each cohort, the sociocognitive factors and transgressiveness assessed in the sixth grade served as predictors of level of involvement in transgressive activities in the eighth grade.

Adaptation in the adolescent phase was selected for study because it is an especially important period in the life course when adolescents have to concurrently manage major biological, educational, and social role transitions (Eccles & Midgley, 1989; Furstenberg, Eccles, Elder, Cook, & Sameroff, 1999; Graber, Brooks-Gunn, & Petersen, 1996). It is also a period of experimentation with risky activities and substance use (Elliott, 1993; Jessor, 1986).

The community from which the participants were selected represents a microcosm of the larger society, containing families of skilled workers, farmers, professionals, and local merchants and their service staffs. Fifteen percent were in professional or managerial ranks, 38% were merchants or operators of other types of businesses, 16% were skilled workers, 30% were unskilled workers, and 1% were retired. The socioeconomic diversity of the sample adds to the generalizability of the findings.

This community adheres to a stringent consent procedure for the conduct of research in the schools. Each research proposal must be approved by a school council composed of parent and teacher representatives as well as student representatives at the junior high and high school levels. In addition, parents must give consent, and children are free to decline to take part if they so choose. The study was structured to the parents and the children as a project designed to gain a better understanding of child development. Informed consent was obtained from 100% of the families, with 91.6% of the sample reassessed in the follow-up phase of the study. The low attrition was due chiefly to relocation from the area or absence from school at the time of the assessment. The latter children did not differ significantly from their counterparts on any of the variables in the initial assessment. The data regarding the variables of theoretical interest were collected in the children's classrooms by two female experimenters. The various sociocognitive measures were administered over a period of several days at each phase of the study.

Perceived Self-Efficacy

Children's beliefs in their efficacy were measured by 37 items representing seven domains of functioning (Bandura, 1990; Bandura et al., 1996b). For each item, children used a 5-point response format to rate the strength of their belief in their capability to execute the designated activities.

Perceived academic self-efficacy measured the children's belief in their capabilities to master different areas of course work. The subjects included mathematics, science, reading and writing language skills, and social studies. A second set of scales measured children's perceived self-efficacy for regulating their own learning activities (Zimmerman, Bandura, & Martinez-Pons, 1992). These scales assessed children's efficacy to arrange environments conducive to learning, to plan and organize their academic activities, to use cognitive strategies to enhance understanding and memory of the material being taught, to seek pertinent information and get teachers and peers to help them with academic problems when needed, to motivate themselves to do their schoolwork, to get themselves to complete scholastic assignments within set deadlines, and to pursue academic activities when there are other interesting things to do. The item "How well can you get teachers to help you when you get stuck on schoolwork?" measured perceived self-efficacy to enlist enabling social resources. The item "How well can you study when there are other interesting things to do?" measured children's perceived efficacy to motivate themselves for academic pursuits in the face of competing attractions.

A third set of scales assessed efficacy for leisure and extracurricular activities involving mainly group extracurricular activities. A fourth set of scales assessed children's self-regulatory efficacy to resist peer pressure to engage in high-risk activities involving the use of alcohol and drugs and transgressive behavior that could get them into trouble. For example, the following item assessed perceived self-regulatory efficacy to rebuff pressures exerted by peers to drink alcoholic beverages: "How well can you resist peer pressure to drink beer, wine, or liquor?"

Perceived social self-efficacy measured children's beliefs in their capabilities to form and maintain social relationships, work cooperatively with others, and manage different types of interpersonal conflicts. Self-assertive efficacy measured children's beliefs in their capabilities to voice their opinions when they differ from those held by others, to stand up to mistreatment or harassment, and to refuse unreasonable requests. "How well can you express your opinions when other classmates disagree with you?" is a sample item assessing perceived self-assertive efficacy. Perceived self-efficacy to meet others' expectations assessed children's beliefs in their capabilities to fulfill what their parents, teachers, and peers expect of them and to live up to what they expect of themselves. "How well can you live up to what your parents expect of you?" typifies items in the perceived efficacy domain to fulfill social expectations.

A principal-components factor analysis revealed a three-factor structure. The first factor, Perceived Academic Self-Efficacy, included high loadings on 19 items measuring perceived capability to manage one's own learning; to master academic subjects; and to fulfill personal, parental, and teachers' academic expectations. Perceived Social Self-Efficacy constituted the second factor. The 13 items loading on this factor included perceived capability for peer relationships, for self-assertiveness, and for leisure-time social activities. The third factor, Perceived Self-Regulatory Efficacy, was represented by 5 items measuring perceived capability to resist peer pressure to engage in high-risk activities. These three factors constituted 16.2%, 8.2%, and 5.4% of the variance, respectively.

The reliability of the factors of perceived self-efficacy was assessed by the squared multiple correlations of factor scores. Coefficients of .70 or higher are indicators of stable factors (Tabachnik & Fidell, 1989). The estimated reliabilities were .90 for Perceived Academic Self-Efficacy, .80 for Perceived Social Self-Efficacy, and .83 for Perceived Self-Regulatory Efficacy.

Prosocial Behavior

Children rated their prosocialness on a 10-item scale that assessed their degree of helpfulness, sharing, consoling, kindness, and cooperativeness (Caprara & Pastorelli, 1993). "I try to help others" and "I try to make sad people happier" are sample items. To avoid a possible response bias, we also included several control items in this scale. The internal consistency
reliability was .77. The factor structure and the concurrent validity of this measure have been corroborated in studies relating children's self-ratings to level of prosocialness as rated by parents, teachers, and peers' sociometric nominations (Caprara & Pastorelli, 1993).

Ruminative Affectivity

The affective contributors to transgressive behavior were measured by a latent variable labeled ruminative affectivity comprising two facets—rumination self-arousal and irascibility. Ruminative self-arousal assessed with 15 items the level of preoccupation with personal grievances and hostile and retaliative ideation. For example, the items “When I am outraged, the more I think about it the angrier I feel” and “Sometimes I can’t sleep because of a wrong done to me” assessed ruminative self-arousal of anger. The irascibility measure, comprising 14 items, measured proneness to negative affectivity in terms of ready anger arousal in social transactions and high testiness even to slight provocations. “It takes very little for things to bug me” is a sample item. This latent variable, previously called “aggression proneness,” was labeled ruminative affectivity so as to be more descriptive of its dual affective components. The alpha reliability coefficients were .86 for hostile rumination and .83 for irascible affectivity. As we noted earlier, the predictive validity of these measures has been verified experimentally. The high factor loadings of .76 and .63 for the boys and the girls, respectively, showed it to be a well-defined latent construct.

Moral Disengagement

Each of the eight mechanisms of moral disengagement was measured by four subsets of items (Bandura et al., 1996a). They tapped readiness to construe injurious conduct as serving righteous purposes, masquerading censurable activities by palliative language or rendering them benign by advantageous comparison, disowning responsibility for harmful effects by displacement or diffusion of responsibility, minimizing the harmful effects of one’s detrimental conduct, devaluing those who are maltreated, and attributing blame to them. To cite some examples, “If people are careless where they leave things it is their own fault if they get stolen” was one of the items measuring attribution of blame to the victims. The item “Kids cannot be blamed for misbehaving if their friends pressured them to do it” measured displacement of responsibility. “Some people deserve to be treated like animals” measured proclivity for dehumanization.

The scale items encompassed diverse forms of detrimental conduct in a variety of contextual conditions and in different types of social relationships. The detrimental activities involved physically injurious and destructive conduct, verbal abuse, deception, and theft. The social contexts encompassed educational, familial, community, and peer relations. For each of the 32 items, children rated the strength of their endorsement or repudiation of moral exonerations of detrimental conduct. Their responses were scored on a 5-point scale ranging from 1 (strongly agree) to 5 (strongly disagree) for the various disengagement practices. High scores signify a high level of moral disengagement, and low scores signify a high level of moral engagement. Factor analysis of the items revealed a one-factor structure with all items loading on the principal factor. Therefore, we summed responses to the items to form a composite measure of moral disengagement. The alpha reliability coefficient for this measure was .86.

Transgressive Behavior

Transgressive behavior was measured initially and 2 years later by the Delinquency subscale of the Child Behavior Checklist developed by Achenbach and Edelbrock (1978). Both the reliability and the predictive validity of this measure of transgressive behavior are well established (Achenbach, McConaughy, & Howell, 1987). The subscale, comprising 22 items for boys and 19 items for girls, covers a wide range of transgressive behaviors, including physical and verbal aggression, theft, cheating, lying, destructiveness, truancy, and use of alcohol and drugs. The participants recorded whether they engaged in such antisocial activities and, if they did, whether they did so only occasionally or often. The reliability coefficients were .73 for girls and .85 for boys at the initial assessment and .82 for female adolescents and .87 for male adolescents at the second assessment.

Results

Prior to conducting the analyses, we examined the data for univariate and multivariate outlying cases by using the procedure devised by Tabachnik and Fidell (1989). Two participants with extreme standard scores on transgressive behavior were detected and eliminated from subsequent analyses. Table 1 presents the means and standard deviations for the various sociocognitive factors and the matrix of correlations between them and transgressive behavior at both time periods.

One-way analyses of variance of gender variations revealed significant differences on all of the assessed variables except perceived social efficacy. Compared with girls, boys expressed lower academic self-efficacy, $F(1, 562) = 9.58, p < .01$, and lower self-regulatory efficacy, $F(1, 562) = 13.73, p < .001$; were less prosocial, $F(1, 562) = 29.68, p < .0001$; were more prone to disengage moral self-sanctions for harmful conduct, $F(1, 562) = 9.09, p < .01$; were more prone to ruminative self-approval, $F(1, 562) = 9.91, p < .01$, and irascible affectivity, $F(1, 562) = 7.35, p < .01$; and engaged more heavily in transgressive activities in both the initial phase, $F(1, 562) = 69.50, p < .0001$, and the

Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>$SD$</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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<tbody>
<tr>
<td>1. Academic efficacy</td>
<td>3.89</td>
<td>0.64</td>
<td></td>
<td>0.43***</td>
<td></td>
<td>0.25***</td>
<td></td>
<td>0.41***</td>
<td></td>
<td>-0.23***</td>
<td></td>
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<td>2. Social efficacy</td>
<td>4.22</td>
<td>0.57</td>
<td></td>
<td>-0.22***</td>
<td></td>
<td>0.31***</td>
<td></td>
<td>-0.03</td>
<td></td>
<td>-0.07</td>
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<td>3. Self-regulatory efficacy</td>
<td>4.12</td>
<td>0.82</td>
<td></td>
<td>-0.12</td>
<td></td>
<td>-0.18***</td>
<td></td>
<td>-0.02</td>
<td></td>
<td>-0.05</td>
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<tr>
<td>4. Prosocial behavior</td>
<td>24.34</td>
<td>3.60</td>
<td></td>
<td>-0.19***</td>
<td></td>
<td>-0.17***</td>
<td></td>
<td>-0.14***</td>
<td></td>
<td>-0.25***</td>
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<td>5. Moral disengagement</td>
<td>93.35</td>
<td>20.52</td>
<td></td>
<td>-0.32***</td>
<td></td>
<td>0.31***</td>
<td></td>
<td>0.33***</td>
<td></td>
<td>0.31***</td>
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<tr>
<td>6. Irascibility</td>
<td>59.96</td>
<td>14.24</td>
<td></td>
<td>-0.49***</td>
<td></td>
<td>0.36***</td>
<td></td>
<td>0.27***</td>
<td></td>
<td>0.28***</td>
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<td>7. Hostile rumination</td>
<td>64.16</td>
<td>18.02</td>
<td></td>
<td>-0.28***</td>
<td></td>
<td>0.29***</td>
<td></td>
<td>0.27***</td>
<td></td>
<td>0.52***</td>
<td></td>
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<td>8. Transgressive behavior 1</td>
<td>6.77</td>
<td>5.69</td>
<td></td>
<td>-0.16</td>
<td></td>
<td>-0.16</td>
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<tr>
<td>9. Transgressive behavior 2</td>
<td>6.22</td>
<td>5.67</td>
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<td>-0.16</td>
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$p < .05$.  **$p < .01$.  ***$p < .001$.  

* See Table 1 for full correlation matrix.
longitudinal phase of the study, \(F(1, 562) = 65.43, p < .0001\). In a Gender \(\times\) Time multivariate analysis of transgressive behavior, neither the main effect of time nor the Gender \(\times\) Time interaction was significant.

**Paths of Influence**

We tested the posited causal structure on the covariance matrices by using the EQS program (Bentler, 1995). Level of engagement in transgressive behavior at the longitudinal time point was the distal outcome variable. We analyzed the structural model by using the multiple-groups model approach, which estimated simultaneously the same pattern of relationships among variables in the two samples of boys and girls. Equivalence is evaluated by constraints that impose identical estimates for the model's parameters (Byrne, 1994; Scott-Lennon & Scott-Lennon, 1995). In EQS, the plausibility of these equality constraints is examined by the Lagrange Multipliers test (Bentler, 1995).

Figure 2 presents the results of the path analysis using Time 1 predictors of Time 2 transgressive conduct. In accord with the posited structural model, perceived academic self-efficacy was concurrently and distally linked to low engagement in transgressive behavior both directly and through the mediation of prosocialness and strong adherence to moral self-sanctions. Similarly, a high sense of efficacy to withstand peer pressure for transgressive activities curbed engagement in transgressive behavior at the initial and the longitudinal phase both directly and by supporting moral engagement. As we further hypothesized, the desistive impact of perceived social self-efficacy on transgressive behavior was mediated through enhancement of prosocialness.

Most of the posited structural links among the mediating factors were verified. Children with a strong prosocial orientation refrained from moral disengagement. Low prosocialness and facile moral disengagement were accompanied by hostile ruminative affectivity, which, in turn, contributed both concurrently and longitudinally to variance in transgressive behavior.

The main departure from the posited conceptual model was that perceived academic and self-regulatory efficacy were mediational rather than directly linked to ruminative affectivity through prosocialness and moral disengagement. The effect of prosocialness on transgressive behavior was also mediated through ruminative affectivity. Moral disengagement contributed to concurrent transgressiveness through ruminative affectivity but operated independently on distal transgressive behavior. The analysis revealed no omitted paths of influence from those specified in the structural model. The posited causal structure was fully replicated across gender, although moral disengagement contributed more heavily to aggression proneness in boys than in girls, and prosocialness operated as the counteractor of ruminative affectivity in girls.

The trimmed model provided an excellent fit to the empirical data as shown by all the different goodness-of-fit indexes considered. These tests yielded a nonsignificant \(\chi^2(53, N = 564) = 55.36, p = .39\); a nonnormed fit index of .99; a comparative fit index of .99; and a root-mean-square error of approximation of .009 (.00, .029). The model accounted for 36% of the variance in Time 1 transgressiveness for both boys and girls, 27% of the variance in Time 2 transgressiveness for boys, and 26% of the variance in Time 2 transgressiveness for girls.

**Alternative Models**

A number of alternative causal models were also tested. In one model, prior transgressiveness was assigned causal primacy affecting subsequent transgressiveness directly and through its impact on perceived self-efficacy, prosocialness, moral disengagement, and ruminative affectivity. The second model conferred causal primacy on ruminative affectivity, which contributed to distal

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**Figure 2.** Path analysis of the patterns of influence through which perceived self-efficacy and moral disengagement affect transgressive conduct. The first path coefficient on each of the structural links is for boys; the second coefficient in parentheses is for girls. All of the path coefficients are significant at the \(p < .05\) level, except that boys' prosocial behavior was unrelated to ruminative affectivity. This nonsignificant path coefficient is in italic type. The coefficients with an asterisk on the paths differ significantly between boys and girls.
transgressiveness directly and through its influence on the mediating factors described above. In a third model, moral disengagement was the causally primary factor operating on distal transgressiveness independently and through the mediating factors.

In each case, the alternative causal models provided a poorer fit to the empirical data than did the posited structural model. All of the chi-square tests were significant, and these alternative models fared less well on the other indexes of goodness of fit. Further tests of the aforementioned alternative models, but with reversed direction of causation in which prosocialness curbed moral disengagement, similarly provided a poorer fit to the data.

Discussion

The findings of the present study lend considerable support for the posited paths of influence through which self-regulatory factors contribute to level of transgressiveness. With a few exceptions, not only were the links in the postulated structural model empirically verified, but the model provided a better fit to the empirical data than did several plausible alternative models.

Male adolescents, who were more heavily engaged than female adolescents in transgressive activities, differed on self-regulatory factors assigned a prominent role in social cognitive theory in the self-management of transgressive conduct. The male adolescents had lower perceived academic and self-regulatory efficacy, were more prone to disengage moral self-sanctions from detrimental conduct, were quicker to arouse themselves to anger through hostile rumination, and were less prosocially oriented. These differences in self-regulatory influence add to the growing body of evidence that sociocognitive factors account for a major share of the variance in gender differences in detrimental conduct (Bettencourt & Kernahan, 1997; Bettencourt & Miller, 1996; Bussey & Bandura, 1999; Eagly & Steffen, 1986; Hyde, 1984; Perry, Perry, & Boldizar, 1990). Although male and female participants differed in level of self-regulatory determinants, the posited causal structure was essentially replicated across gender.

Perceived academic and self-regulatory factors concurrently and longitudinally curtailed transgressiveness both directly and by fostering prosocialness and adherence to moral self-sanctions for harmful conduct. As we hypothesized, the impact of perceived social self-efficacy was mediated through prosocialness. Adolescents who related prosocially to others and who eschewed moral disengagement were disinclined to engage in angering and retaliative rumination. Ruminative affectivity was both concurrently and longitudinally linked to transgressive conduct. Disengagement of moral self-sanctions also contributed independently to subsequent transgressiveness.

Prior research has shown that the various facets of perceived self-efficacy and moral disengagement operate as influential contributors to academic achievement (Bandura et al., 1996b). Evidence that these factors also operate influentially in transgressive conduct adds to the explanatory and predictive generality of sociocognitive theory.

Only two paths in the structural model differed by gender. Moral disengagement was accompanied by ruminative affectivity for both boys and girls, but the link was stronger for boys. The magnitude of difference may reflect the lower level and lesser variance on both factors for the girls. Prosocialness was linked to low ruminative affectivity for girls but not for boys. Differential associational networks may account for this gender difference. Peer groups are not homogeneous. Adolescents who are irascible and hostile to ruminative may behave prosocially with like-minded aggressive peers to whom they gravitate. In contrast, for adolescents who repudiate harmful conduct, their prosocialness is likely to create little occasion both cognitively and through amicable affiliations for anger arousal and vindictive ideation.

A second possible interpretation is in terms of the affective quality of peer relationships. Girls are more likely than boys to engage their peers in discussions of their negative feelings toward others (Buhrmester, 1990; Sharabany, Gerston, & Hofman, 1981; Tannen, 1990). Talking things out may weaken the intensity of troublesome experiences, permit corrections of misconstruals, and suggest socially reparative actions. Ruminative hostility is likely to flourish in the absence of ameliorative social feedback. Gender differences in the various facets of prosocialness in the present study are in accord with the latter interpretation. Boys and girls do not differ in the sociability facets, but girls are substantially more consoling, sharing, helpful, and affectionately demonstrative.

Compatible associativity and emotional supportiveness may, of course, operate as complementary rather than competing factors in gender differences in how prosocialness is linked to ruminative affectivity. Prosocialness would thus have differential effects on ruminative affectivity depending on the types of peers with whom one associates and their level of emotional disclosure.

Several of the hypothesized paths in the structural model were not verified. Perceived academic and self-regulatory efficacy affected ruminative affectivity through their positive impact on prosocialness and curtailment of moral disengagement rather than directly. Apparently, the more proximally germane empathic and moral cognitive processes had determinative priority. Prosocialness mediational but not directly affected transgressiveness by lessening ruminative affectivity and readiness to disengage moral self-sanctions. The nature of the affiliative linkages discussed above may account for the absence of a residual direct link to transgressiveness. Transgressive adolescents may be prosocial with peers who are antisocially oriented (Cairns & Cairns, 1991; Claes & Simard, 1992; Elliott, Huizinga, & Ageton, 1985), as are nondeviant adolescents whose peer associates are disinclined to engage in serious wrongdoing. Seriously antisocial individuals may not be especially empathic and caring toward anyone (Marcus, 1996), but adjudicated delinquents fail at the extreme of unstable social connectedness.

The old adage that birds of a feather flock together professes the significance of differential peer bonding. Beliefs of personal efficacy affect social relationships. For example, adolescents with a high sense of self-regulatory efficacy communicate openly with their parents about predicaments they face outside the home and enlist their parents’ guidance and support in managing peer pressures to engage in detrimental activities (Caprara et al., 1998). The role of sociocognitive influences in the selection and structuring of peer relationships and whether those social ties promote deviancy or prosocialness clearly warrant study.

Moral disengagement affected transgressiveness through its influence on ruminative affectivity in the short run, but directly in the long run. This pattern of linkage suggests that as cognitive modes of moral disengagement get routinized, they no longer need to operate through self-arousing affective states. A similar regulatory shift over time is observed in other forms of adaptation, such
as avoidant lifestyles, in which emotional arousal initially plays a facilitative role, but as the behavior becomes habitualized, it is performed independently of emotional arousal (Bandura, 1986). In the perpetration of large-scale inhumanities through collective moral disengagement, pernicious conduct gets routinized to the point where it is carried out with unexercised efficiency (Andrus, 1969; Bandura, 1991; Kelman, 1973).

The participants rated the extent to which they engaged in transgressive activities and used alcohol and drugs. In the transition to junior high school, their socioeducational realities become more diverse. They have multiple teachers who are a less reliable evaluative source because their observations are largely limited to behavior in the particular course that they teach. Moreover, they have little firsthand accessibility to transgressive activities and substance use, which occur mainly outside the school. The grouping of classmates also varies across the different academic course arrangements. However, data from the elementary school period, in which social arrangements are more uniform, revealed significant congruence of ratings of aggressive and transgressive conduct across sources and methods. The children’s self-ratings correlated .51 with parental ratings, .24 with teachers’ ratings, and .37 with peers’ sociometric ratings. The high correlation with ratings by parents, who have the highest accessibility to their children’s behavior, speaks most strongly to the reliability of participants’ self-ratings. The findings of other studies attest to the generalizability of particular paths of influence in the structural model. In a national longitudinal study in Korea, children who had a low sense of academic and self-regulatory efficacy and were facile to moral disengagement showed a high propensity for antisocial conduct (Kwak & Bandura, 1997). Elliott and Rhinehart (1995) found that proclivity to moral disengagement predicted both felony and misdemeanors regardless of age, sex, race, religious affiliation, and social class.

Research on the effects of situational provocation has added substantially to our understanding of the conditions in which induced anger arousal is likely to spur aggressive actions (Berkowitz, 1993; Rule & Nesdale, 1976; Zillmann, 1988). Cognitions have been shown to operate as significant mediators of situational incitements (Baumgardner, 1990; Crick & Dodge, 1994; Ferguson & Rule, 1983). Their contribution to aggression enhancement has been studied primarily in terms of the cognitive labeling of emotional states in theories of emotion and in terms of ascriptions of causality and blame for detrimental conduct in attribution theory. Social cognitive theory of aggression broadens the cognitive contribution by adding the self-activation function of cognition (Bandura, 1973, 1986).

The findings of the present study underscore the influential role of cognitive self-arousal in fostering detrimental conduct. Prone ness to angering and retaliative rumination was positively linked to transgressiveness both concurrently and over time. It also played a mediating role in the impact of prosocialness and moral disengagement on transgressive behavior.

As we previously noted, situationally induced anger dissipates over time. If provocation produced only transitory arousal, it would be of little importance. What gives enduring significance to past angering experiences is that they create proneness for affective rea rousal on future occasions. Several rea rousal mechanisms have been proposed as explanatory contenders. One explanation is that, through associative coupling, situational cues alone become conditioned activators (Berkowitz, 1993). Situational reminders of maddening experiences can certainly rouse one to anger. Whether the situationally cued linkage is initially cognitively mediated but then becomes thoughtless through routinized rearousal, is always cognitively mediated, or is thoughtless from the outset and remains so thereafter is open to speculation and empirical verification. In social cognitive theory (Bandura, 1999b), efficient functioning requires a dual-process mix of routinized action patterns under lower sensorimotor control and mindful activity regulated cognitively.

Affect arousal is often construed in terms of a state–trait distinction reflecting situational and dispositional activation. Social cognitive theory treats personal dispositions, such as proneness to ruminative affectivity, as dynamic self-arousal processes (Bandura, 1999b). The nature and locus of the events that set off perturbing thought processes may differ currently and on future occasions. But the self-arousal mechanism is similarly involved at different time points regardless of whether self-arousal is situationally prompted and experienced as a current state or later cognitively activated by remembrances of past indignities. Experimental investigations and field studies of thought sampling of self-arousal linked to contextual circumstances, accompanying trains of thought, and adaptive actions can add to our understanding of how negative affectivity contributes to detrimental conduct.

Everyday life is strewn with experiences that generate negative affect. People do not act naively on anger and vengeful thoughts. If every angering experience or vindictive thought triggered aggressive acts, individuals would be endlessly embroiled in serious social and legal troubles. Adaptiveness requires self-management of affective states through exercise of self-regulatory capabilities. There is a major difference between possessing self-regulatory skills and unwaveringly applying them in the face of stiff peer pressure for transgressive activities and maddening provocation. The findings of the present study verify the influential role of perceived self-regulatory efficacy in the management of peer transgressive pressures.

Self-efficacy theory is currently being extended to the self-regulation of affective states. The self-management of affect takes several forms (Bandura, 1997). People influence their emotional states by whether they construe events in affect-laden or more benign ways (Crick & Dodge, 1994; Lazarus & Folkman, 1984). The second mode of self-arousal operates through the trains of thoughts that people conjure up and dwell on (Bandura, 1973; Wegner & Pennebaker, 1993). People can also moderate by palliative means their affective states once they arise without altering their determinants.

Self-management of affect does not rely solely on cognitive means, however. People exert control over their emotional well-being by the environments that they select and create through their styles of behavior (Bandura, 1999b). For example, aggressive individuals manage to create by their actions hostile environments, whereas amiable individuals generate harmonious social milieus (Raush, 1965). Another form of affect regulation by behavioral means is concerned with whether people give vent to their emotions or restrain their expression (Gross, 1998).

Self-efficacy to manage one’s emotional life is concerned with perceived capability to regulate both positive and negative emotions through construal, cognitive, palliative, and behavioral means (Bandura, 1997). Preliminary research in other domains of func-
tioning has revealed that emotional self-regulatory efficacy contributes to variance in depression and prosocial behavior independently of perceived social efficacy (Caprara et al., 1999). Because we have clarified the contributory role of several aspects of perceived personal efficacy in the present study, an appropriate next phase for research is to evaluate the unique contribution of perceived self-efficacy for affect regulation in the causal structure of transgressive behavior.

References


