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# Unconditional Regard Buffers Children's Negative Self-Feelings

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## KEY WORDS

unconditional regard, conditional regard, negative self-feelings, failure, grades, early adolescence, intervention

## ABBREVIATIONS

CI—confidence interval

MANOVA—multivariate analysis of variance

Mr Brummelman conceptualized and designed the study, collected the data, analyzed and interpreted the data, and drafted the initial manuscript; Drs Thomaes and Poorthuis made substantial contributions to the study design, made substantial contributions to the analysis and interpretation of the data, and reviewed and revised the manuscript; Drs Walton, Overbeek, Orobio de Castro, and Bushman made substantial contributions to the analysis and interpretation of the data and reviewed and revised the manuscript; and all authors approved the final manuscript as submitted.

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**WHAT'S KNOWN ON THIS SUBJECT:** Studies have shown that setbacks, such as receiving low school grades, lead children to experience negative self-feelings (eg, shame, insecurity, powerlessness). Psychological theory predicts that unconditional regard can buffer this adverse impact of setbacks. However, causal evidence is lacking.



**WHAT THIS STUDY ADDS:** This randomized field experiment shows that briefly reflecting on experiences of unconditional regard buffers children's negative self-feelings after an academic setback 3 weeks later. Unconditional regard may thus be an important psychological lever to reduce negative self-feelings in youth.

## abstract

**BACKGROUND:** Unconditional regard refers to the feeling that one is accepted and valued by others without conditions. Psychological theory suggests that experiences of unconditional regard lead children to feel that they are valuable despite setbacks. We hypothesized that reflecting on experiences of unconditional regard would buffer children's negative self-feelings (eg, shame, insecurity, powerlessness) in the face of setbacks. To test this hypothesis, we randomized children to reflect on experiences of unconditional regard or other experiences, and examined their response to an academic setback 3 weeks later.

**METHODS:** Participants (11–15 years old) were randomly assigned to reflect for 15 minutes on experiences of unconditional regard ( $n = 91$ ), conditional regard ( $n = 80$ ), or other social experiences ( $n = 76$ ). Research personnel, teachers, and classmates remained blind to condition assignment. Three weeks later, after receiving their course grades, children reported their self-feelings. Course grades were obtained from school records. Receiving low course grades represents a salient and painful real-world setback for children.

**RESULTS:** Replicating previous research, children who received lower grades experienced more negative self-feelings ( $P < .001$ ). As predicted, this well-established relationship was significantly attenuated among children who had reflected, 3 weeks previously, on experiences of unconditional regard ( $P_s < .03$ ). Reflecting on unconditional regard specifically reduced negative self-feelings after low grades ( $P = .01$ ), not after average or high grades ( $P_s > .17$ ).

**CONCLUSIONS:** Reflecting on unconditional regard buffered children's selves against the adverse impact of an academic setback over an extended period of time. Unconditional regard may thus be an important psychological lever to reduce negative self-feelings in youth. *Pediatrics* 2014;134:1119–1126

A pressing question children often ask themselves after failing or making mistakes is “Will others still accept and value me?”<sup>1,2</sup> The feeling that one is accepted and valued by others without conditions is called “unconditional regard.”<sup>3</sup> Psychologists and pediatricians, such as Carl Rogers, have proposed that when children experience unconditional regard from others, they internalize the feeling that they are valuable for who they are as a person and that their worth does not hinge on achievements.<sup>3–5</sup> As a consequence, their sense of worth does not wax and wane with successes and failures.

This perspective suggests that unconditional regard may buffer children’s negative self-feelings (eg, shame, insecurity, powerlessness) in the face of setbacks. Although causal evidence for this hypothesis is lacking, some suggestive evidence exists. Correlational research finds that the less conditional regard students experience from their parents, the less shame they report after hypothetical failure experiences.<sup>6,7</sup> Laboratory experiments find that when adults reflect on experiences of unconditional regard, they respond less defensively to failure.<sup>8,9</sup>

## AN UNCONDITIONAL-REGARD INTERVENTION

Extending past research, this article reports a randomized field experiment testing whether briefly reflecting on experiences of unconditional regard buffers children’s negative self-feelings in the face of a distal real-world setback. Children reflected on personal experiences in which they were accepted and valued by others without conditions. This exercise was intended to activate mental representations of unconditional regard, which can have psychological consequences similar to those created by actually experiencing such regard.<sup>10–12</sup> We tested whether this exercise would buffer children’s

negative self-feelings in response to receiving low grades in school several weeks later. Thus, our research advances psychological theory and reveals how psychologists and pediatricians may help buffer children’s negative self-feelings in their real-world lives.

## UNCONDITIONAL REGARD IN EARLY ADOLESCENCE

Unconditional regard may be especially important during early adolescence. Young adolescents spend more than half of their waking time with peers<sup>13</sup> and tend to have a strong desire to be well regarded by them.<sup>14</sup> However, they often experience peer regard as conditional. They feel that they must “earn” regard by meeting peer norms and expectations, which is a form of conditional regard.<sup>15</sup> When young adolescents fail to meet these norms and expectations, they may expect to lose regard and thus feel badly about themselves.<sup>1,16</sup> Unsurprisingly, negative self-feelings peak during early adolescence.<sup>17</sup> At this age, such feelings are not only painful and aversive, they also increase risk for later psychopathology.<sup>18–20</sup>

## PRESENT RESEARCH

The objective of this study was to test, in a real-world setting, whether reflecting on personal experiences of unconditional regard would buffer young adolescents’ negative self-feelings in the face of a distal setback. Our research contributes to a growing body of research showing that brief interventions that target key social-psychological processes can have lasting effects on well-being.<sup>21–24</sup>

Participants were randomly assigned to complete a brief writing exercise in which they reflected on personal experiences of unconditional regard, conditional regard, or other social experiences. Negative self-feelings were assessed 3 weeks later on the day

participants received their first report card of the school year. Receiving low course grades represents a salient and painful real-world setback.<sup>25</sup> Young adolescents are inclined to compare themselves to peers, especially on such objective standards as grades, and to evaluate themselves accordingly.<sup>1</sup> It is well established that, without intervention, students typically experience negative self-feelings when they receive low grades.<sup>26,27</sup>

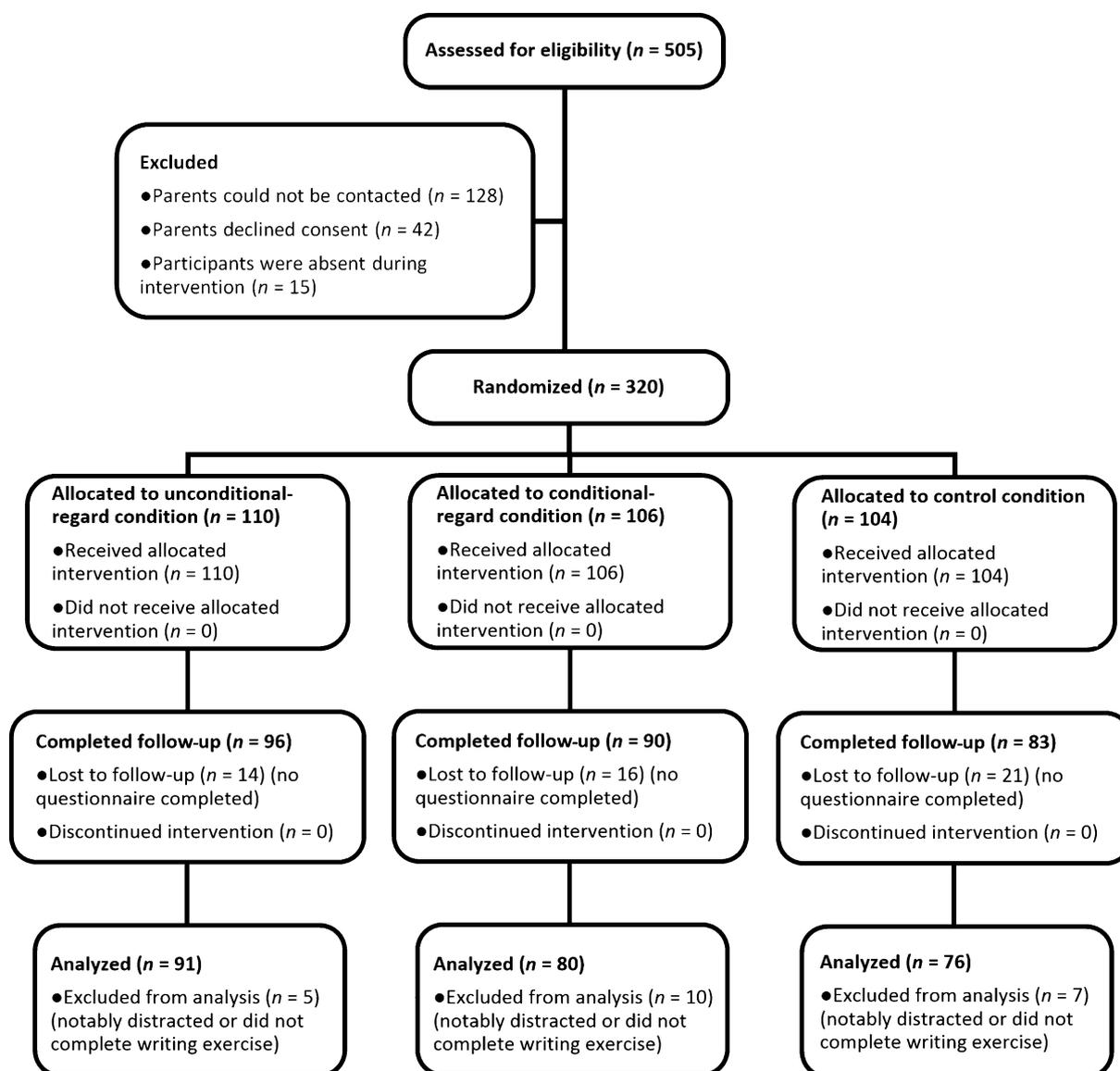
Consistent with previous research, we anticipated that participants would experience more negative self-feelings when they received lower grades. We hypothesized, however, that this pattern would be attenuated for participants who had reflected on experiences of unconditional regard.

## METHODS

### Participants

This study was conducted in a public secondary school in the Netherlands. All students from sixth, seventh, and eighth grades were assessed for eligibility (Fig 1 displays the flow of participants through the experiment). Two hundred sixty-nine students completed both the intervention and the outcome measures; 22 were excluded from the analyses because they met a priori exclusion criteria (ie, being notably distracted during the writing exercise or failing to complete the writing exercise); excluding them did not affect the study findings.

The final sample consisted of 247 students (56.7% girls) aged 11 to 15 years ( $M = 13.5$ ,  $SD = 0.9$ ) from 16 classes. Most were from middle-class families. All received parental consent (parental consent rate = 88.9%) and gave personal assent (assent rate = 100.0%). Post hoc power analysis, based on the effect size obtained in the current study, shows that the final sample size ensured sufficient power (ie, 0.80) for detecting the condition  $\times$  grades

**FIGURE 1**

Consolidated Standards of Reporting Trials diagram. The number of participants lost to follow-up and the number of participants excluded from the analyses did not differ between conditions,  $\chi^2(2, N = 320) = 2.31, P = .32$ , and  $\chi^2(2, N = 320) = 2.00, P = .36$ , respectively.

interaction on negative self-feelings ( $\alpha = 0.05$ ).<sup>28</sup>

### Materials and Procedure

The research ethics committee of the faculty of Social and Behavioral Sciences of Utrecht University approved all procedures. Participant recruitment and the intervention took place in November 2011. The intervention was conducted in classrooms at school. Participants were told that the re-

search focused on how students “get along with one another” and that they would complete a writing exercise about this topic. They were randomly assigned on an individual basis (ie, within classes) to unconditional-regard ( $n = 91$ ), conditional-regard ( $n = 80$ ), or control ( $n = 76$ ) conditions. Research personnel implemented random assignment by distributing the writing exercises in predetermined, random order. Random assignment was successful (see Table 1). The exercises were distributed and

returned in closed envelopes. Thus, research personnel, teachers, and classmates remained blind to condition assignment.

The exercise took ~15 minutes. Although brief, it relied on the power of expressive writing and self-persuasion to create an impactful subjective experience.<sup>29,30</sup>

In the unconditional-regard condition, participants were asked to think of peers “who always accept and value

**TABLE 1** Means and SDs of Major Study Variables for Each Condition

	Unconditional Regard ( <i>n</i> = 91, 57% Girls)		Conditional Regard ( <i>n</i> = 80, 60% Girls)		Control ( <i>n</i> = 76, 53% Girls)	
	M	SD	M	SD	M	SD
Age (y)	13.46	0.87	13.36	0.89	13.56	0.88
Grades <sup>a</sup>	6.89	0.81	6.89	0.79	6.95	0.89
Negative self-feelings	1.43	0.61	1.54	0.72	1.41	0.55
Negative other-feelings	1.36	0.49	1.45	0.60	1.38	0.48

Analyses of variance revealed no difference between groups in first-trimester grades, participant sex, or age, *P*s > .40, indicating that random assignment was successful.

<sup>a</sup> Grades are unstandardized.

you, no matter how you behave or how good you are at something.” Next, they visualized and wrote about a situation in which 1 of these peers “still accepted and valued you even though you made a mistake or did something stupid.” For example, one 14-year old girl wrote: “I was working on a task with a friend of mine, and I made a lot of mistakes. But we are still good friends, and she still values me.”

In the conditional-regard condition, participants were asked to think of peers “who accept and value you, but only if you do or say the kind of things these peers like, approve of, or look up to.” Next, they visualized and wrote about a situation in which one of these peers “accepted and valued you less because you made a mistake or did something stupid.” For example, one 14-year old girl wrote: “I was playing a handball match, and I missed several chances. My teammates looked away from me and started ignoring me.”

In the control condition, participants were asked to think of peers “who do not really know you.” Next, they visualized and wrote about a situation in which 1 of these peers was present while “you made a mistake or did something stupid.” For example, one 12-year old girl wrote: “When I ran from one class to another, I tripped on the stairs. My classmates saw it happen, but I didn’t know them that well back then.”

Thus, in all conditions, participants visualized and wrote about a situation in which they made a mistake or did something stupid. Most participants described either a failure experience (36%) or a situation in which they victimized someone (28%) or were victimized by someone else (9%); only 2% described an academic setback.

To examine whether the manipulation worked as intended, 2 independent trained coders read the writing exercises and coded whether participants described unconditional regard, conditional regard, or other experiences (Cohen  $\kappa$  > 0.87). Unconditional regard was operationalized as “others having regard for the participant, regardless of his or her actions, performances, or abilities.” Conditional regard was operationalized as “others making their regard conditional upon the participant’s actions, performances, or abilities.”

Three weeks later, participants received their first report card of the school year and, later that evening, completed an online questionnaire. They indicated how they felt after receiving their report card using 5 negative self-feelings adjectives (ie, primary outcome; ashamed, weak/vulnerable, powerless, out of control, insecure; Cronbach  $\alpha$  = 0.92) and 5 negative other-feelings adjectives (ie, secondary outcome; hateful, selfish, aloof, disconnected/detached, angry; Cronbach  $\alpha$  = 0.83) using 4-point

scales (1 = not at all, 4 = extremely). We selected items from previous research<sup>31</sup> that were most appropriate for use with young adolescents. Responses were averaged across items. Confirmatory factor analysis using Mplus 6 found that the 2-factor model, negative self- versus other-feelings, provided good fit to the data, comparative fit index = 0.99, Tucker-Lewis Index = 0.98, weighted root mean square residual = 0.79 (standardized factor loadings: negative self-feelings = 0.87–0.96; negative other-feelings = 0.74–0.89, *P*s < .001).

Participants’ first-trimester grades (retrieved from school records) in Dutch, Mathematics, English, and French (ie, the 4 core-academic subjects in Dutch schools that all participants took) were averaged across academic subjects, and then standardized within classes (Cronbach  $\alpha$  = 0.69). Standardizing within classes eliminates between-class differences in grading procedures and indexes more closely participants’ grades relative to their classmates.<sup>32</sup> Because participants had completed all first-trimester course assignments before the study, the intervention could not have affected first-trimester course grades.

### Data Analysis

Primary analyses were multivariate analysis of variance (MANOVA) with negative self- and other-feelings as dependent variables, condition (unconditional, conditional, control) as a between-subjects factor, report card grades (centered) as a continuous predictor, condition  $\times$  report card grades as an interaction, and participant sex as a covariate. Participant sex was controlled for because girls experienced more negative self-feelings but not more negative other-feelings than boys,  $F(1, 240) = 5.35, P = .02, \eta_p^2 = 0.02$ , and  $F < 1$ . Analyses of variance revealed no interactions between participant sex or age and either grades or condition, *P*s > .14.

## RESULTS

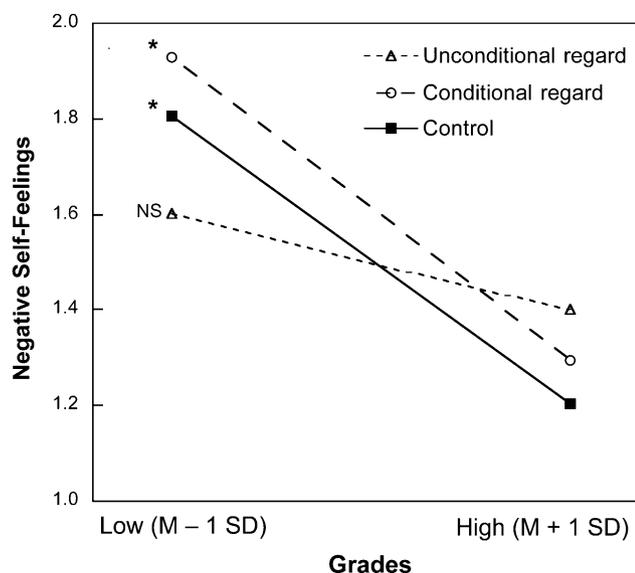
Table 1 lists descriptive statistics for the main study variables.

### Manipulation Check

The manipulation worked as intended. Participants in the unconditional-regard group described experiences of unconditional regard more often (77%) than did participants in the conditional regard (3%) and control (0%) groups,  $P_s < .001$ . The latter 2 groups did not differ,  $P = .17$ . Participants in the conditional-regard group described experiences of conditional regard more often (70%) than did participants in the unconditional regard (0%) and control (3%) groups,  $P_s < .001$ . The latter 2 groups did not differ,  $P = .12$ .

### Primary Analyses

There was no multivariate main effect of condition on negative self- and other-feelings,  $F < 1$ . However, there was a multivariate main effect of grades (Wilks'  $\lambda = 0.86$ ),  $F(2, 239) = 19.54$ ,  $P < .001$ ,  $\eta_p^2 = 0.14$ . As expected, lower grades were associated with more negative self- and other-feelings,  $F(1, 240) = 39.24$ ,  $P < .001$ ,  $\eta_p^2 = 0.14$ , and  $F(1, 240) = 11.59$ ,  $P < .001$ ,  $\eta_p^2 = 0.05$ , respectively. More important, there was a multivariate 2-way interaction between grades and condition (Wilks'  $\lambda = 0.96$ ),  $F(4, 478) = 2.68$ ,  $P = .03$ ,  $\eta_p^2 = 0.02$ . As expected, this 2-way interaction was significant for negative self-feelings,  $F(2, 240) = 3.73$ ,  $P = .03$ ,  $\eta_p^2 = 0.03$  (Fig 2). Simple slopes analysis<sup>35</sup> revealed that in the conditional-regard and control groups, lower grades strongly predicted negative self-feelings,  $b = -0.33$  (95% confidence interval [CI]:  $-0.46$  to  $-0.19$ ),  $\beta = -0.50$ ,  $t(240) = -4.76$ ,  $P < .001$ , and  $b = -0.31$  (95% CI:  $-0.45$  to  $-0.17$ ),  $\beta = -0.48$ ,  $t(240) = -4.28$ ,  $P < .001$ , respectively. However, in the unconditional-regard group, this well-established association was nonsignificant,  $b = -0.10$  (95% CI:



**FIGURE 2**

Negative self-feelings as a function of grades and experimental condition. Negative self-feelings run from 1 (not at all) to 4 (extremely). Low grades =  $M - 1$  SD. High grades =  $M + 1$  SD. \* $P < .001$ . NS, nonsignificant ( $P > 0.09$ ).

$-0.23$  to  $0.02$ ),  $\beta = -0.16$ ,  $t(240) = -1.70$ ,  $P = .09$ . In this group, students who received lower grades did not report significantly more negative self-feelings than students who received better grades.

The previous analysis does not address whether the association between grades and negative self-feelings was significantly attenuated in the unconditional-regard group compared with the other groups. To test this, contrasts in MANOVA compared the strength of the association between groups: confirming our primary hypothesis, the association between grades and negative self-feelings was significantly attenuated in the unconditional-regard group compared with the conditional-regard and control groups,  $b = -0.22$  (95% CI:  $-0.41$  to  $-0.04$ ),  $t(240) = -2.43$ ,  $P = .02$ , and  $b = -0.21$  (95% CI:  $-0.39$  to  $-0.02$ ),  $t(240) = -2.18$ ,  $P = .03$ , respectively. The latter groups did not differ,  $b = -0.02$  (95% CI:  $-0.21$  to  $0.18$ ),  $t(240) = -0.18$ ,  $P = .86$ .

Although Fig 2 suggests that reflecting on unconditional regard increased negative self-feelings after receiving high grades, this trend was not significant. Simple contrasts analysis<sup>35</sup> revealed that

compared with the pooled conditional-regard and control groups, reflecting on unconditional regard did not affect negative self-feelings after receiving high ( $M + 1$  SD) or average grades,  $t_s < |1.40|$ ,  $P_s > .17$  but reduced negative self-feelings after receiving low ( $M - 1$  SD) grades,  $b = -0.27$  (95% CI:  $-0.06$  to  $-0.48$ ),  $t(242) = -2.49$ ,  $P = .01$ . Thus, reflecting on unconditional regard specifically decreased negative self-feeling after receiving low grades and did not inadvertently increase negative self-feelings after receiving high grades.

There was no analogous effect on feelings directed toward others; a MANOVA showed that the 2-way interaction between condition and grades for negative other-feelings was nonsignificant,  $F < 1$ . Hence, reflecting on unconditional regard specifically buffered negative feelings directed toward the self.

### Ancillary Analyses

Reflecting on unconditional regard did not affect subsequent academic performance. A MANOVA showed that there was no main effect of condition and no interaction with first-trimester grades

on participants' second- and third-trimester grades,  $F_s < 1$ .

## DISCUSSION

In the present randomized field experiment, briefly reflecting on experiences of unconditional regard mitigated the impact of receiving low grades on children's negative self-feelings 3 weeks later. Replicating previous research,<sup>26,27</sup> children who received lower grades experienced more negative self-feelings. Yet this well-established relationship was significantly attenuated among children who had reflected, 3 weeks earlier, on experiences of unconditional regard from peers. Attesting to the specificity of this effect, reflecting on unconditional regard did not affect children's negative other-feelings. These findings demonstrate that unconditional regard may be an important psychological lever to reduce negative self-feelings in youth.

### Theoretical Implications

What mechanisms might underlie the intervention's sustained effects? Experiences of unconditional regard might remain accessible in children's minds and thus buffer them against a distal setback.<sup>8</sup> Also, these experiences might become self-fulfilling: children who feel more confident about their acceptance may express more welcoming social behavior and thereby elicit more acceptance from others.<sup>34,35</sup> If so, the intervention may set in motion a self-sustaining upward spiral of perceived acceptance that buffers negative self-feelings over time.

The self-buffering effect of unconditional regard is interesting in light of studies on academic disidentification.<sup>36,37</sup> These studies suggest that students who do not base self-worth on performing well in school may not identify with school, which can undermine subsequent academic performance. In the current study, the reduced association between grades

and self-feelings likely has a different genesis. Rather than reduced identification with school, it may reflect children's belief that they will not be judged or viewed negatively when they receive low grades in school.<sup>6</sup> Indeed, even when students do not base their self-worth on their grades, they can still value school as an important part of their identity.<sup>38,39</sup> Consistent with this interpretation, even though the unconditional-regard intervention buffered negative self-feelings after receiving low grades, it did not undermine subsequent academic performance.

Is it possible that the unconditional-regard condition did not reduce negative self-feelings but, instead, the conditional-regard and control conditions increased such feelings? Perhaps children in these conditions wrote about experiences of conditional regard, and this increased negative self-feelings. Our findings, however, contradict this possibility. Only 3% of children in the control condition wrote about conditional regard, compared with 70% in the conditional-regard condition. Also, it is well established that, without intervention, students typically experience negative self-feelings after receiving low grades.<sup>24,25</sup> Our results replicate this association in the conditional-regard and control conditions but not in the unconditional-regard condition. Thus, unconditional regard actively "cut off" negative self-feelings after receiving low grades.

### Practical Implications

Psychologists and pediatricians have theorized that unconditional regard may improve children's well-being.<sup>3-5,40</sup> Our experiment provides causal evidence for this benefit among young adolescents. At this age, negative self-feelings are painful and predict increased risk for developing psychopathology, such as depression and anxiety.<sup>18-20</sup> Developmental trajectories

that lead to adult psychopathology often begin in early adolescence.<sup>41</sup> Psychologists and pediatricians could develop unconditional-regard exercises or practices that would buffer young adolescents' negative self-feelings and possibly reduce their likelihood of developing psychopathology later in life. It would be important to explore such possibilities in future research in clinical settings.

### Strengths, Limitations, and Future Research

Strengths of our study include the development of a novel intervention, its timing in early adolescence, and its focus on distal effects in a naturalistic setting. Our study also has limitations. First, negative self-feelings were assessed at a single point in time, 3 weeks postintervention. An important question is whether the intervention-effect dissipates, persists, or even accumulates over months or years.<sup>24</sup> To explore these possibilities, future research should include a baseline assessment and long-term follow-ups. Second, the negative self-feelings measure, although validated with young adults,<sup>31</sup> had not previously been validated with young adolescents. In our study, the measure was internally consistent, had a strong single-factor structure, and was associated with school grades in a manner that is consistent with previous research. Future research should further corroborate its reliability and validity. Third, our study focused on 1 painful real-world setback in particular: low grades on the first report card of the school year. To explore the breadth of the intervention effect, future research could examine whether the intervention also buffers the adverse impact of other setbacks, such as peer harassment.

Another important question is whether reflecting on unconditional regard benefits all children or could potentially

backfire among some children. Children who feel deeply disliked by others, for example, might have trouble believing that peers value and accept them unconditionally.<sup>42</sup> If so, reflecting on unconditional regard might feel threatening to them.<sup>43</sup> Future research should ex-

amine this possibility to explore boundary conditions of the intervention's effectiveness.

## CONCLUSIONS

Experiencing negative self-feelings is problematic; such feelings are painful,

debilitating, and degrade quality of life. This randomized field experiment demonstrates that reflecting on experiences of unconditional regard can buffer children's negative self-feelings in the face of distal setbacks.

## REFERENCES

- Harter S. *Construction of the Self: Developmental and Sociocultural Foundations*. New York, NY: Guilford Press; 2012
- Leary MR, Baumeister RF. The nature and function of self-esteem: sociometer theory. In Zanna MP, ed. *Advances in Experimental Social Psychology*. Vol. 32. San Diego, CA: Academic Press; 2000:1–62
- Rogers C. *On Becoming a Person: A Therapist's View of Psychotherapy*. Cambridge, MA: Riverside Press; 1961
- Deci EL, Ryan RM. The “what” and “why” of goal pursuits: human needs and the self-determination of behavior. *Psychol Inq*. 2000; 11(4):227–268
- Burns CE, Dunn AM, Brady MA, Starr, NB, Blosser CG. *Pediatric Primary Care*. 5th ed. Philadelphia, PA: Elsevier; 2012
- Assor A, Roth G, Deci EL. The emotional costs of parents' conditional regard: a self-determination theory analysis. *J Pers*. 2004; 72(1):47–88
- Assor A, Tal K. When parents' affection depends on child's achievement: parental conditional positive regard, self-aggrandizement, shame and coping in adolescents. *J Adolesc*. 2012;35 (2):249–260
- Baldwin MW. Relational schemas as a source of if-then self-inference procedures. *Rev Gen Psychol*. 1997;1(4):326–335
- Schimmel J, Arndt J, Pyszczynski T, Greenberg J. Being accepted for who we are: evidence that social validation of the intrinsic self reduces general defensiveness. *J Pers Soc Psychol*. 2001;80(1):35–52
- Fitzsimons GM, Bargh JA. Thinking of you: nonconscious pursuit of interpersonal goals associated with relationship partners. *J Pers Soc Psychol*. 2003;84(1):148–164
- Mikulincer M, Shaver PR. Boosting attachment security to promote mental health, prosocial values, and inter-group tolerance. *Psychol Inq*. 2007;18(3):139–156
- Olson KR, Dweck CS. A blueprint for social cognitive development. *Perspect Psychol Sci*. 2008;3(3):193–202
- Csikszentmihalyi M, Larson R. *Being Adolescent: Growth and Conflict in the Teenage Years*. New York, NY: Basic Books; 1984
- Rubin KH, Bukowski WM, Parker JG. Peer interactions, relationships, and groups. In: Damon W, Lerner RM, series eds.; Eisenberg N, volume ed. *Handbook of Child Psychology*. Vol. 3. 6th ed. Hoboken, NJ: Wiley; 2006: 571–645
- Harter S, Marold DB, Whitesell NR, Cobbs G. A model of the effects of perceived parent and peer support on adolescent false self behavior. *Child Dev*. 1996;67(2):360–374
- Thomaes S, Reijntjes A, Orobio de Castro B, Bushman BJ, Poorthuis A, Telch MJ. I like me if you like me: on the interpersonal modulation and regulation of preadolescents' state self-esteem. *Child Dev*. 2010;81(3):811–825
- Orth U, Robins RW, Soto CJ. Tracking the trajectory of shame, guilt, and pride across the life span. *J Pers Soc Psychol*. 2010;99 (6):1061–1071
- Trzesniewski KH, Donnellan MB, Moffitt TE, Robins RW, Poulton R, Caspi A. Low self-esteem during adolescence predicts poor health, criminal behavior, and limited economic prospects during adulthood. *Dev Psychol*. 2006;42(2):381–390
- Sowislo JF, Orth U. Does low self-esteem predict depression and anxiety? A meta-analysis of longitudinal studies. *Psychol Bull*. 2013;139(1):213–240
- Steiger AE, Allemand M, Robins RW, Fend HA. Low and decreasing self-esteem during adolescence predict adult depression two decades later. *J Pers Soc Psychol*. 2014;106 (2):325–338
- Cohen GL, Garcia J, Apfel N, Master A. Reducing the racial achievement gap: a social-psychological intervention. *Science*. 2006;313 (5791):1307–1310
- Walton GM. The new science of wise psychological interventions. *Curr Dir Psychol Sci*. 2014;23(1):73–82
- Walton GM, Cohen GL. A brief social-belonging intervention improves academic and health outcomes of minority students. *Science*. 2011;331(6023):1447–1451
- Yeager DS, Walton GM. Social-psychological interventions in education: they're not magic. *Rev Educ Res*. 2011;81(2):267–301
- Eccles JS, Midgley C, Wigfield A, et al. Development during adolescence. The impact of stage-environment fit on young adolescents' experiences in schools and in families. *Am Psychol*. 1993;48(2):90–101
- Crocker J, Karpinski A, Quinn DM, Chase SK. When grades determine self-worth: consequences of contingent self-worth for male and female engineering and psychology majors. *J Pers Soc Psychol*. 2003;85 (3):507–516
- Chung JM, Robins RW, Trzesniewski KH, Nofle EE, Roberts BW, Widaman KF. Continuity and change in self-esteem during emerging adulthood. *J Pers Soc Psychol*. 2014;106(3):469–483
- Faul F, Erdfelder E, Lang AG, Buchner A. G\*Power 3: a flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behav Res Methods*. 2007;39(2):175–191
- Aronson E. The power of self-persuasion. *Am Psychol*. 1999;54(11):875–884
- Pennebaker JW. Writing about emotional experiences as a therapeutic process. *Psychol Sci*. 1997;8:162–166
- Crocker J, Niiya Y, Mischkowski D. Why does writing about important values reduce defensiveness? Self-affirmation and the role of positive other-directed feelings. *Psychol Sci*. 2008;19(7):740–747
- Marsh HW, Köller O, Baumert J. Reunification of East and West German school systems: longitudinal multilevel modeling study of the big-fish-little-pond effect on academic self-concept. *Am Educ Res J*. 2001;38(2): 321–350
- Holmbeck GN. Post-hoc probing of significant moderational and mediational effects in studies of pediatric populations. *J Pediatr Psychol*. 2002;27(1):87–96

34. Stinson DA, Cameron JJ, Wood JV, Gaucher D, Holmes JG. Deconstructing the "reign of error": interpersonal warmth explains the self-fulfilling prophecy of anticipated acceptance. *Pers Soc Psychol Bull.* 2009;35(9):1165–1178
35. Stinson DA, Logel C, Shepherd S, Zanna MP. Rewriting the self-fulfilling prophecy of social rejection: self-affirmation improves relational security and social behavior up to 2 months later. *Psychol Sci.* 2011;22(9):1145–1149
36. Crocker J, Major B. Social stigma and self-esteem: The self-protective properties of stigma. *Psychol Rev.* 1989;96(4):608–630
37. Steele CM. A threat in the air. How stereotypes shape intellectual identity and performance. *Am Psychol.* 1997;52(6):613–629
38. Lawrence JS, Charbonneau J. The link between basing self-worth on academics and student performance depends on domain identification and academic setting. *Learn Individ Differ.* 2009;19(4):615–620
39. Lawrence JS, Crocker J. Academic contingencies of self-worth impair positively- and negatively-stereotyped students' performance in performance-goal settings. *J Res Pers.* 2009;43(5):868–874
40. Hagan JF, Shaw JS, Duncan PM, eds. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents.* 3rd ed. Elk Grove Village, IL: American Academy of Pediatrics; 2008
41. Steinberg L, Dahl R, Keating D, Kupfer D, Masten A, Pine D. The study of developmental psychopathology in adolescence: integrating affective neuroscience with the study of context. In: Cicchetti D, Cohen D, eds. *Developmental Psychopathology.* Vol. 2. 2nd ed. Hoboken, NJ: Wiley; 2006:710–741
42. Swann WB Jr. Self-verification theory. In: Van Lange PAM, Kruglanski AW, Higgins ET, eds. *Handbook of Theories of Social Psychology.* Vol. 2. London, UK: Sage; 2012:23–42
43. Kwang T, Swann WB Jr. Do people embrace praise even when they feel unworthy? A review of critical tests of self-enhancement versus self-verification. *Pers Soc Psychol Rev.* 2010;14(3):263–280

**YOGA ON MY MIND:** *I recently attended a meeting in Philadelphia. While there, a friend of mine and I had a leisurely dinner close to Rittenhouse Square at a restaurant with a table on the sidewalk. The evening was warm and the streets were crowded with shoppers, diners, and people enjoying the weather. Over the course of the evening, we were both struck by the number of women walking past wearing yoga pants and tights, and men wearing moisture-absorbing shirts. We also could not help noticing that, across the street, a national clothing chain store displayed a dozen mannequins all festooned with what were called "track pants." As reported in The Wall Street Journal (Business: August 20, 2014), despite the fact that fewer Americans are participating in sports, growth in the retail athletic apparel market is increasing dramatically. Athletic leisure wear, also called "athleisure," is one of the few bright spots in the clothing sales business. At least one prominent financial firm estimates that the retail U.S. athletic apparel market will increase by nearly 50%, reaching over \$100 billion by 2020. Even my small town of Burlington, Vermont, has not escaped the trend. Amazingly, Burlington boasts one store dedicated entirely to yoga wear, another with an entire department, and yet another yoga clothing store about to open. Little of the clothing purchased is likely to be used exercising, but will instead primarily serve as a fashion statement. For example, participation in yoga grew 4.5% in 2013, while sales of yoga apparel shot up 45%. Many women (including my wife and daughter) wear yoga pants and tights everywhere, enjoying their comfort, look, and ease of use. Anyway, despite the distractions of so many sportily clad people, my friend and I had a wonderful dinner. We did not, however, feel the need to run out and buy any yoga wear of our own.*

Noted by WVR, MD

## Unconditional Regard Buffers Children's Negative Self-Feelings

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