Why Effort Praise Can Backfire in Adolescence

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ABSTRACT—*Praise for process, which includes praising students' level of effort and effective strategies, has shown promise in improving students' motivation to learn. However, parents and teachers may interpret this to mean that solely praising students' effort level is sufficient. Although praise for effort is effective in some respects in early childhood, it often stops working and even backfires by adolescence. In this article, we explain these findings developmentally. We suggest that effort praise can communicate that effort is a path to improving ability, but can also imply that the student needs to work hard because of low innate ability. We propose that adolescents are at greater risk for interpreting the praise in the second way because secondary schools often value innate ability more than effort and adolescents are conscious of ability stereotypes. We conclude with implications for theory and research.*

KEYWORDS—*effort praise; motivation; adolescence*

How can parents and teachers motivate students to learn in school, believe they can improve their abilities, and persist through challenges? Adults can promote these kinds of motivation through the type of evaluative feedback they give, particularly through certain forms of praise (1). Adults' use of praise for process (or *process praise*), which includes praising students' level of effort (i.e., *effort praise*) and their use of effective strategies (i.e., *strategy praise*) upon success, can communicate that hard work and a thoughtful approach to learning lead to achievement

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and improved abilities (2). To the extent that students internalize this message, students' beliefs about their academic competence and their capacity to persist through obstacles thrive (3).

However, as this research has been disseminated in media that reach parents and teachers, adults may interpret it incorrectly to mean that solely praising effort is sufficient (3). Effort praise alone may be ineffective for many reasons (4), particularly considering that students use effort praise to assess their abilities. In this article, we highlight research indicating that effort praise can communicate expectations of low ability by the time students reach adolescence (5–7). This developmental finding has not been integrated with current theory on process praise, yet it brings to light how adults' overemphasis on effort praise may undermine their attempts to motivate students. We also integrate this research by first reviewing the theory of process praise and describing the developmental factors that may account for why effort praise can communicate expectations of low ability by adolescence, and we review additional explanations for why effort praise may be ineffective for adolescents. We conclude with theoretical implications and suggestions for research to clarify when and why certain forms of process praise boost students' motivation.

THEORY OF PROCESS PRAISE

Research on process praise began with the observation that teachers' and parents' responses to success vary in their messages about ability, effort, and performance (1, 2). Some adults respond to a student's success with *ability praise* (e.g., "You must be smart at these problems"), which can convey that ability is the most important contributor to performance. Given the focus on innate talent, ability praise may also suggest that abilities are fixed entities (8). This message can have negative repercussions when students encounter failures; students may see negative performance feedback as evidence that they lack ability and cannot improve (1). Indeed, ability praise leads students to adopt more fixed beliefs about ability that result in lowered persistence after setbacks (1–3).

Alternatively, adults may give *process praise* following a student's success, linking the student's performance to effort (e.g.,

"You must have worked hard at these problems") and effective strategies (e.g., "You found a good way to do this"). Process praise tells students that abilities can be improved through hard work and thoughtful approaches to learning (2). Students may recall this message when they face failures, resulting in persistent effort and shifts in strategies to overcome challenges (1). Studies support these hypotheses: Adults' use of process praise, in which *both* effort level and effective strategies are praised, can promote students' intrinsic motivation to learn and perseverance after failure from preschool through young adulthood (2, 8–10).

THE EFFECTS ACROSS DEVELOPMENT OF USING ONLY EFFORT PRAISE

Using process praise as a tool to provide feedback has been covered widely in media that target parents and teachers (11). However, many parents and teachers believe it is sufficient to praise effort alone (3). To these individuals, praising effort may seem an intuitive way to communicate that effort is important for improving abilities. But this assumption apparently holds true only at certain points in children's development. For 4- to 7-year-olds, effort praise alone may boost persistence after failure and foster beliefs that ability can improve with effort (2, 12).

But studies on the effect of effort praise on adolescents' beliefs about ability reveal different findings. Rather than inferring positive messages about effort, 11- to 18-year-olds commonly believe that effort praise reflects adults' low expectations about the adolescents' abilities (5–7, 13, 14). Students who interpret praise this way are vulnerable to internalizing these beliefs, which can undermine their persistence in learning (15). Moreover, racial-minority students are even more likely than their nonminority peers to infer low-ability beliefs from praise (16, 17). Thus, effort praise unintentionally communicates to adolescents negative messages about abilities and consequently reduces their motivation to learn and overcome failures (15).

WHY EFFORT PRAISE CAN BACKFIRE IN ADOLESCENCE

Changes in School Culture Regarding Effort and Ability
Why do adolescents interpret effort praise as indicating low levels of ability? One reason may be that school culture regarding effort and ability changes as students move through the education system. In the elementary years, schools tend to adopt more mastery-oriented goal structures, which emphasize students' individual improvement and the process of learning (18). Because this goal structure frames effort as central to achievement, students may interpret teachers' effort praise as an indicator of success. This school culture may also encourage students to believe abilities can be improved with effort (19), a belief that is reinforced by effort praise. Indeed, classroom structures that enforce master goals help students appreciate personal growth

and hard work (20), which may make them more receptive to effort praise.

In the secondary school years, particularly in Western cultures, schools tend to adopt performance-oriented goal structures (21) in which students' performance on tests is valued more than their individual growth or effort. Teachers often rely on practices that foster social comparison and competition among students, including public honor rolls, award ceremonies for the highest-achieving students, and tracking in academic courses (18). Because this school culture suggests that high-ability students learn quickly and more effortlessly than their peers, students may adopt the belief that ability and effort are *inversely* related in how they predict performance: High-ability students need minimal effort to achieve and students who have to work hard are lower in ability (22). Students may be demoralized by praise emphasizing their effort because it could suggest they do not grasp the material easily, implying they lack ability. Confirming this idea, adolescents who have internalized inverse ability-effort beliefs tend to view adults' effort praise as an indicator of low-ability expectations (6, 13). Performance goal structures are the norm for secondary schools in Western societies (18), which may be why many adolescents react negatively to effort praise.

Awareness of Ability Stereotypes
While many adolescents believe effort praise indicates that they lack ability, this may be especially true for adolescents from groups that are historically stigmatized as low in ability. During adolescence, students become increasingly aware of how society perceives their social group's academic ability (23), and youth who face negative academic stereotypes (e.g., adolescents of racial-minority groups) are often vigilant for messages that may disrespect their abilities (24). Teachers' effort praise may be one such message. For example, when African American students were praised by European American evaluators (e.g., with the phrase, "Great job!" after they gave a speech), they attributed the praise to the evaluators' low expectations more readily than did their peers from racial-majority groups (16, 25). Similarly, female students in male-dominated fields tended to doubt their abilities when told they would be given additional time and help from male colleagues to complete tasks (26).

Additional Reasons Effort Praise May Be Ineffective
Effort praise can communicate low-ability expectations to adolescents; additional reasons why praising effort alone may be ineffective should be considered. Process praise encompasses both effort praise *and* strategy praise (2). When students are praised only for effort, they lack information about which strategies they used produced the achievement (3). For students who work hard but use ineffective strategies, effort praise does not help them progress in their learning and may lead to a loss of confidence in the idea that effort can improve ability (27).

In related work on *inflated praise* (e.g., "You have perfect coordination!"), adults tend to use inflated positive feedback

with students with lower self-esteem (28); a similar process apparently occurs with effort praise. Specifically, teachers are more likely to use effort praise with low-performing students to express sympathy (29), and scholars have voiced concern that many teachers and parents praise struggling students' effort to help them feel good (27). Given that adolescents can recognize that high- and low-performing students are treated differently (30), teachers' increased use of effort praise with low-performing students may perpetuate adolescents' inferences that they lack ability.

Situational factors can also undermine effort praise. For example, when a teacher praises a student for how hard she worked at a particular task, the student may overestimate how much effort she actually made (31). The student may be deterred from pursuing similar tasks because the amount of time and work needed to be successful may seem too costly (32). Furthermore, when effort praise is not justified for the situation, perhaps because the evaluator was unaware of how hard the student worked or the task was easy and required little effort, effort praise may seem insincere, condescending, or controlling (4, 5).

THEORETICAL IMPLICATIONS

Feedback practices, such as effort praise, are not one-size-fits-all approaches to children in different developmental periods and contexts. The intended message of the feedback can be misinterpreted by students when the broader academic culture does not align with the feedback, as may be the case when effort praise is given in schools that value ability more than effort (18). Given that the misalignment between effort-oriented feedback and school culture often increases as students grow older (21), researchers should consider how changes in school context influence students' reasoning about effort and ability, and their interpretations of feedback related to these factors. We should also consider how developmental processes specific to students who face negative academic stereotypes could shape their interpretations of feedback, such as racial-minority students' increasing awareness of ability stereotypes and vigilance in the face of discrimination (33). With this framework, researchers should elucidate the conditions under which effort praise demotivates and identify process-oriented messages that may be more motivating.

This developmental-contextual approach may help us understand students' interpretations of other types of evaluative feedback. For example, ability praise or inflated praise may affect students negatively in performance-oriented secondary schools by increasing already-salient pressure to perform, implying that ability is fixed, and lowering adolescents' motivation to pursue challenging courses or tasks (28). When providing feedback following failure, teachers of racial-minority students should consider students' consciousness of ability stereotypes and sensitivity to messages about ability level. Indeed, teachers' critical feedback to racial-minority adolescents can increase students' worries that they are being treated unfairly if the teachers do not explicitly state their high expectations (34). Studies that address changing contextual and cognitive factors across development will help us understand how to adjust feedback so it is appropriate developmentally and sensitive culturally.

LOOKING AHEAD

In this article, we identified several factors—school culture regarding ability and effort, adolescents' internalization of inverse beliefs regarding ability and effort, and adolescents' awareness of ability stereotypes—that may explain why effort praise communicates low-ability beliefs in adolescence. Few studies have determined whether these factors moderate effort praise and adolescents' beliefs about ability (6, 13). Researchers should test these moderating factors across ecological contexts (e.g., family, school settings) to understand how they affect interpretations of feedback. For example, researchers could assess students' beliefs about ability and effort, and whether these beliefs influence their interpretations of parents' and teachers' effort praise.

Researchers should also examine if intervening upon these moderating factors allows adolescents to benefit more from effort praise or process praise more broadly. One relevant intervention is the growth mindset approach, which encourages adolescents to view their abilities as malleable to effort and strategies (35). Researchers could examine whether adolescents who adopt more adaptive beliefs about ability and effort respond more to adults' process-oriented praise than adolescents who lack such beliefs (6).

Finally, modifying process praise could enhance this practice for adolescents. While praising both effort and strategies is important, teachers and others may also want to include a message that links hard work to improved performance outcomes (e.g., "If you keep working hard and using these effective strategies, you will be able to solve these problems more quickly in the future"). Adolescents are receptive to the message that effort can improve abilities (35), and this message may be critical in school contexts where performance outcomes are salient. Moreover, adolescents who face low-ability stereotypes may need adjustments in how feedback is phrased (36). In research on critical feedback to racial-minority adolescents, students' concerns about evaluators' bias were alleviated by a statement of high expectations preceding the feedback (e.g., "I am giving you this feedback because I know you can meet my high expectations"; 34). To examine each of these hypotheses, researchers should conduct experimental studies on feedback in adolescents' learning environments to strengthen both causal inference and ecological validity (34).

CONCLUSION

Praise from parents and teachers is an important social influence on students' motivation to invest effort in school (31, 34,

37, 38). The media's interest in telling the public about beneficial feedback practices like process praise is warranted. However, giving feedback effectively requires greater understanding of the complexities surrounding effort-based feedback. Students' interpretations of effort-based feedback may change significantly depending on the culture of the academic context, students' awareness and the relevance of stereotypes related to ability, and other situational factors connected to striving for achievement. We encourage researchers to launch studies to clarify these moderating factors and advance our understanding of how parents' and teachers' evaluative feedback can be optimized across development.

REFERENCES

1. Mueller, C. M., & Dweck, C. S. (1998). Praise for intelligence can undermine children's motivation and performance. *Journal of Personality and Social Psychology*, *75*, 33–52. https://doi.org/10.1037/0022-3514.75.1.33

2. Kamins, M. L., & Dweck, C. S. (1999). Person versus process praise and criticism: Implications for contingent self-worth and coping. *Developmental Psychology*, *35*, 835–847. https://doi.org/10.1037/0012-1649.35.3.835

3. Haimovitz, K., & Dweck, C. S. (2017). The origins of children's growth and fixed mindsets: New research and a new proposal. *Child Development*, *88*, 1849–1859. https://doi.org/10.1111/cdev.12955

4. Henderlong, J., & Lepper, M. R. (2002). The effects of praise on children's intrinsic motivation: A review and synthesis. *Psychological Bulletin*, *128*, 774–795. https://doi.org/10.1037/0033-2909.128.5.774

5. Barker, G. P., & Graham, S. (1987). Developmental study of praise and blame as attributional cues. *Journal of Educational Psychology*, *79*, 62–66. https://doi.org/10.1037/0022-0663.79.1.62

6. Lam, S., Yim, P., & Ng, Y. (2008). Is effort praise motivational? The role of beliefs in the effort-ability relationship. *Contemporary Educational Psychology*, *33*, 694–710. https://doi.org/10.1016/j.cedpsych.2008.01.005

7. Möller, J. (2005). Paradoxical effects of praise and criticism: Social, dimensional and temporal comparisons. *British Journal of Educational Psychology*, *75*, 275–295. https://doi.org/10.1348/000709904X24744

8. Cimpian, A., Arce, H.-M. C., Markman, E. M., & Dweck, C. S. (2007). Subtle linguistic cues affect children's motivation. *Psychological Science*, *18*, 314–316. https://doi.org/10.1111/j.1467-9280.2007.01896.x

9. Haimovitz, K., & Corpus, J. H. (2011). Effects of person versus process praise on student motivation: Stability and change in emerging adulthood. *Educational Psychology*, *31*, 595–609. https://doi.org/10.1080/01443410.2011.585950

10. Corpus, J. H., & Lepper, M. R. (2007). The effects of person versus performance praise on children's motivation: Gender and age as moderating factors. *Educational Psychology*, *27*, 487–508. https://doi.org/10.1080/01443410601159852

11. Bray, B. B. (2013, February 12). Praising kids for efforts, not qualities, may help them succeed. *HealthDay*. Retrieved from https://consumer.healthday.com/kids-health-information-23/child-development-news-124/praising-kids-for-efforts-not-qualities-may-help-them-succeed-673377.html

12. Morris, B. J., & Zentall, S. R. (2014). High fives motivate: The effects of gestural and ambiguous verbal praise on motivation. *Frontiers in Psychology*, *5*, 1–6. https://doi.org/10.3389/fpsyg.2014.00928

13. Miller, A. T., & Hom, H. L., Jr. (1997). Conceptions of ability and the interpretation of praise, blame and material rewards. *The Journal of Experimental Education*, *65*, 163–177.

14. Meyer, W.-U., Bachmann, M., Biermann, U., Hempelmann, M., Ploger, F.-O., & Spiller, H. (1979). The informational value of evaluative behavior: Influences of praise and blame on perceptions of ability. *Journal of Educational Psychology*, *71*, 259–268. https://doi.org/10.1037/0022-0663.71.2.259

15. Graham, S., & Taylor, A. Z. (2014). An attributional approach to emotional life in the classroom. In R. Pekrun & L. Linnenbrink-Garcia (Eds.), *International handbook of emotions in education* (pp. 96–119). New York, NY: Routledge.

16. Lawrence, J. S., Crocker, J., & Blanton, H. (2011). Stigmatized and dominant cultural groups differentially interpret positive feedback. *Journal of Cross-Cultural Psychology*, *42*, 165–169. https://doi.org/10.1177/0022022110383569

17. Major, B., Kunstman, J. W., Malta, B. D., Sawyer, P. J., Townsend, S. S. M., & Mendes, W. B. (2016). Suspicion of motives predicts minorities' responses to positive feedback in interracial interactions. *Journal of Experimental Social Psychology*, *62*, 75–88. https://doi.org/10.1016/j.jesp.2015.10.007

18. Eccles, J. S., & Roeser, R. W. (2013). Schools, academic motivation, and stage-environment fit. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (2nd ed., pp. 125–153). Hoboken, NJ: Wiley. https://doi.org/10.1002/9780471726746.ch5

19. Rosenholtz, S. J., & Simpson, C. (1984). The formation of ability conceptions: Developmental trend or social construction? *Review of Educational Research*, *54*, 31–63. https://doi.org/10.2307/1170397

20. Murayama, K., & Elliot, A. J. (2009). The joint influence of personal achievement goals and classroom goal structures on achievement-relevant outcomes. *Journal of Educational Psychology*, *101*, 432–447. https://doi.org/10.1037/a0014221

21. Midgley, C., Anderman, E., & Hicks, L. (1995). Differences between elementary and middle school teachers and students: A goal theory approach. *The Journal of Early Adolescence*, *15*, 90–113. https://doi.org/10.1177/0272431695015001006

22. Nicholls, J. G. (1978). The development of the concepts of effort and ability, perception of academic attainment, and the understanding that difficult tasks require more ability. *Child Development*, *49*, 800–814. https://doi.org/10.2307/1128250

23. McKown, C., & Weinstein, R. S. (2003). The development and consequences of stereotype consciousness in middle childhood. *Child Development*, *74*, 498–515. https://doi.org/10.1111/1467-8624.7402012

24. Lawrence, J. S., Crocker, J., & Dweck, C. S. (2005). Stereotypes negatively influence the meaning students give to academic settings. In G. Downey, J. S. Eccles, & C. M. Chatman (Eds.), *Navigating the future: Social identity, coping, and life task* (pp. 23–44). New York, NY: Russell Sage.

25. Crocker, J., Voelkl, K., Testa, M., & Major, B. (1991). Social stigma: The affective consequences of attributional ambiguity. *Journal of Personality and Social Psychology*, *60*, 218–228. https://doi.org/10.1037/0022-3514.60.2.218

26. Dardenne, B., Dumont, M., & Bollier, T. (2007). Insidious dangers of benevolent sexism: Consequences for women's performance.

Journal of Personality and Social Psychology, *93*, 764–779. https://doi.org/10.1037/0022-3514.93.5.764

27. Dweck, C. S. (2015). Carol Dweck revisits the "growth mindset". *Education Week*, *35*, 20, 24. Retrieved from http://www.edweek.org/ew/articles/2015/09/23/carol-dweck-revisits-the-growth-mindset.html

28. Brummelman, E., Crocker, J., & Bushman, B. J. (2016). The praise paradox: When and why praise backfires in children with low self-esteem. *Child Development Perspectives*, *10*, 111–115. https://doi.org/10.1111/cdep.12171

29. Butler, R. (1994). Teacher communications and student interpretations: Effects of teacher responses to failing students on attributional inferences in two age groups. *British Journal of Educational Psychology*, *64*, 277–294. https://doi.org/10.1111/j.2044-8279.1994.tb01102.x

30. Kuklinski, M. R., & Weinstein, R. S. (2000). Classroom and grade level differences in the stability of teacher expectations and perceived differential teacher treatment. *Learning Environments Research*, *3*, 1–34. https://doi.org/10.1023/A:1009904718353

31. Pomerantz, E. M., & Kempner, S. G. (2013). Mothers' daily person and process praise: Implications for children's theory of intelligence and motivation. *Developmental Psychology*, *49*, 2040–2046. https://doi.org/10.1037/a0031840

32. Wigfield, A., & Eccles, J. S. (2000). Expectancy-value theory of achievement motivation. *Contemporary Educational Psychology*, *25*, 68–81. https://doi.org/10.1006/ceps.1999.1015

33. Spears Brown, C., & Bigler, R. S. (2005). Children's perceptions of discrimination: A developmental model. *Child Development*, *76*, 533–553. https://doi.org/10.1111/j.1467-8624.2005.00862.x

34. Yeager, D. S., Purdie-Vaughns, V., Garcia, J., Apfel, N., Brzustoski, P., Master, A., . . . Cohen, G. L. (2014). Breaking the cycle of mistrust: Wise interventions to provide critical feedback across the racial divide. *Journal of Experimental Psychology: General*, *143*, 804–824. https://doi.org/10.1037/a0033906

35. Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*, *78*, 246–263. https://doi.org/10.1111/j.1467-8624.2007.00995.x

36. Cohen, G. L., Steele, C. M., & Ross, L. D. (1999). The mentor's dilemma: Providing critical feedback across the racial divide. *Personality and Social Psychology Bulletin*, *25*, 1302–1318. https://doi.org/10.1177/0146167299258011

37. Haimovitz, K., & Dweck, C. S. (2016). Parents' views of failure predict children's fixed and growth intelligence mind-sets. *Psychological Science*, *27*, 859–869. https://doi.org/10.1177/0956797616639727

38. Gunderson, E. A., Gripshover, S. J., Romero, C., Dweck, C. S., Goldin-Meadow, S., & Levine, S. C. (2013). Parent praise to 1- to 3-year-olds predicts children's motivational frameworks 5 years later. *Child Development*, *84*, 1526–1541. https://doi.org/10.1111/cdev.12064