Journal of Experimental Child Psychology 107 (2010) 155–163

Contents lists available at ScienceDirect

Journal of Experimental Child Psychology

journal homepage: www.elsevier.com/locate/jecp

"Good job, you're so smart": The effects of inconsistency of praise type on young children's motivation

Shannon R. Zentall *, Bradley J. Morris

Department of Psychology, Grand Valley State University, Allendale, MI 49401, USA

ARTICLE INFO

Article history:
Received 29 June 2009
Revised 18 April 2010
Available online 8 June 2010

Keywords:
Motivation
Helplessness
Praise
Persistence
Self-evaluation
Generic language

ABSTRACT

Previous research has demonstrated that generic praise ("good drawer") is related to children giving up after failure because failure implies the lack of a critical trait (e.g., drawing ability). Conversely, nongeneric praise ("good job drawing") is related to mastery motivation because it implies that success is related to effort. Yet children may receive a mixture of these praise types (i.e., inconsistent praise), the effects of which are unclear. We tested how inconsistent praise influenced two components of motivation: self-evaluation and persistence. Kindergarteners ($N = 135$) were randomly assigned to one of five conditions in which consistency of praise type was varied. After two failure scenarios, children reported self-evaluations and persistence. Results indicated that more nongeneric praise related linearly to greater motivation, yet self-evaluation and persistence were impacted differently by inconsistent praise types. Hearing even a small amount of generic praise reduced persistence, whereas hearing a small amount of nongeneric praise preserved self-evaluation.

Introduction

Children face frustrating tasks and failure daily. An important question is why some children are less frustrated by failure and more motivated to persist after failure than other children. Children who persist after a failure or setback are described as having a *mastery orientation*, whereas children who give up in frustration are described as having a *helpless orientation* (e.g., Diener & Dweck, 1978, 1980). Motivation orientations are complex concepts most commonly assessed using multiple

* Corresponding author.
E-mail address: zentalls@gvsu.edu (S.R. Zentall).

0022-0965/$ - see front matter © 2010 Elsevier Inc. All rights reserved.
doi:10.1016/j.jecp.2010.04.015

behaviors (Jennings & Dietz, 2003). Task persistence and self-evaluations represent two components of motivation often used to measure motivation orientation (e.g., Barrett, Morgan, & Maslin-Cole, 1993; Dweck & Leggett, 1988). Compared with children with mastery orientations, children with helpless orientations gave more negative self-evaluations (e.g., "I am not good at this") and were less likely to persist on a task after failure (Diener & Dweck, 1978, 1980; Dweck & Leggett, 1988). Furthermore, helpless children were more likely than mastery children to choose a different task that would "conceal their ability or protect it from negative evaluation" (Dweck, 1986, p. 1041) rather than persist at a task at which they failed.

Dweck and colleagues (Diener & Dweck, 1978; Dweck & Leggett, 1988) also described a subgroup of children who engaged in self-protective behaviors such as attempting to disengage from the task and reporting successes on other tasks. Self-protective behaviors demonstrate how children might protect their self-evaluations by not persisting, thereby allowing self-evaluations to remain high but persistence to be low. The choice not to persist is also protective in that it ensures that there will be no further evidence of failure.

Generic versus nongeneric praise

A child's motivation orientation is strongly influenced by the environment such as the type of praise that children experience (Cimpian, Arce, Markman, & Dweck, 2007; Kamins & Dweck, 1999; Mueller & Dweck, 1998; White, 1959). Specifically, different types of praise provide different information about what matters in achieving a goal and, thus, lead to different motivational outcomes (e.g., Cimpian et al., 2007). Two types of praise have been linked to motivational orientations: generic and nongeneric. Children as young as 2 years of age were able to distinguish generic statements from nongeneric statements and use this information to create different expectations about kinds (Cimpian & Markman, 2008; Gelman & Raman, 2003; Heyman & Gelman, 1999). Generic statements convey information more central to a category than do nongeneric statements (Cimpian, Gelman, & Brandone, 2010; Gelman, 2003). For example, stating that "cows have hooves" goes beyond the information of any individual cow and implies a stable factor common to all members of the category. Generic praise implies that stable factors are associated with goal achievement. Stable factors may be seen as "uncontrollable" for the individual (Henderlong & Lepper, 2002). For example, stating that "you are a good drawer" suggests that drawing ability explains the achievement of the specified goal—in this case, producing a "good drawing". In contrast, nongeneric statements convey information about specific individuals rather than categories (Gelman, 2003). For example, stating that "this cow is named Jane" carries no implication about the names of other cows. Nongeneric praise implies that nonstable factors (i.e., factors that might differ among individuals and situations) are associated with goal achievement. For example, stating that "you worked hard at drawing" suggests that the effort put into drawing explains the good drawing. Effort put into drawing is a nonstable controllable factor, which suggests that failure can be changed (Henderlong & Lepper, 2002).

The relation between praise and motivation

Motivation refers to "internally driven engagement" related to achieving a particular goal (Henderlong & Lepper, 2002, p. 775), and the type of praise creates expectations about how goals can be achieved (e.g., Mueller & Dweck, 1998). Previous research has demonstrated that a relatively small amount of praise can influence young children's motivation (Cimpian et al., 2007; Kamins & Dweck, 1999; Mueller & Dweck, 1998). Kamins and Dweck (1999) engaged 5- and 6-year-olds in role-play scenarios with puppets representing a teacher and the children. In the scenarios, the child attempted four tasks (e.g., building a tower with blocks). After successful completion of each task, the teacher gave the child one of three types of praise: (a) generic praise (e.g., "You're a good girl"), (b) nongeneric praise on the outcome (e.g., "That's the right way to do it"), or (c) nongeneric praise on the process (e.g., "You must have tried really hard") depending on the assigned condition. Next, the child role-played a failure scenario (e.g., a Lego house missing windows). Those who heard generic praise rated themselves and their products (e.g., the Lego house) less positively (i.e., lower self-evaluations) than both of the nongeneric groups. Children given generic praise on the process

were more likely than children given nongeneric praise to choose a different type of task—that is, not to persist—after the failure. Cimpian and colleagues (2007) obtained similar results using generic or nongeneric praise statements ("You are a good drawer" or "You did a good job drawing") with a sample of 4-year-olds using a similar role-playing scenario procedure. Compared with children who heard nongeneric praise, children who heard generic praise had lower self-evaluations and lower persistence following failure. These results provide evidence that praise type influences children's motivation by providing information about what predicts goal achievement (Cimpian & Markman, 2008; Dweck, 2006; Henderlong & Lepper, 2002). However, this research examined how presenting *consistent praise types* (hereafter *consistent praise*)—hearing either all generic or all nongeneric praise, but not both—influenced motivation, and this might not represent what children hear in natural settings.

Generic and nongeneric praise in natural settings

In natural settings, children are likely to hear a combination of both types of praise—*inconsistent praise types* (hereafter *inconsistent praise*)—relating to the same task (e.g., hearing "good boy" for succeeding at a task and then "you worked hard" for repeating the same task). For example, Zentall (2009) found that during an instruction task with 20-month-olds, mothers produced inconsistent praise in 16.7% of exchanges. Reissland (1994) found that 38% of mothers used inconsistent praise with their 10- to 58-month-olds while interacting with a new game. Moreover, in both studies, none of the mothers used generic praise exclusively. However, parents report that generic praise is important to use with their young children (Dweck, 2002, 2006). In a survey by Dweck (2002), 80% of parents reported that praising their children's abilities was necessary for the children to feel good about themselves. And in a recent survey, 85% of parents reported that the best way to improve the performance of their children was to ensure their children that they possessed a trait related to goal achievement (e.g., intelligence) (Dweck, 2006). These results provide evidence that parents use inconsistent praise.

The current experiment

As reviewed above, consistent praise influences motivation, yet there is evidence that in natural contexts children hear inconsistent praise. Because generic praise implies that a stable trait underlies goal achievement, perhaps hearing some nongeneric praise along with generic praise makes this relation less clear (and vice versa). One possibility is that the relative weights of each type of praise are different (as suggested by Cimpian et al. (2010)). That is, hearing a small amount of one type might be more influential than hearing a small amount of the other type. For example, because generic praise highlights the presence or absence of the trait underlying goal achievement, the presence of any generic praise might reduce motivation by suggesting that failure indicates the absence of this trait.

It is also unclear whether inconsistent praise may have different effects on the two components of motivation described above. Previous research using consistent praise found that both self-evaluation and persistence were affected similarly (Cimpian et al., 2007; Kamins & Dweck, 1999; Mueller & Dweck, 1998). Yet the similarity between self-evaluation and persistence may have been an artifact of consistent praise. There is some evidence that self-evaluations and persistence are not necessarily highly correlated (Barrett et al., 1993). For example, a child may persist even though she does not evaluate her performance highly (or vice versa). Thus, with consistent generic or nongeneric praise, self-evaluations and persistence may be highly correlated; however, this relation may weaken when both types of praise are heard. If the relation between the two motivational components is influenced by the consistency of the praise types, we would expect to see more self-protective behaviors in children who hear inconsistent praise. For example, children who received inconsistent praise may find a single failure to be somewhat unclear (lack of a trait or lack of effort), but the children do not want to risk producing more evidence of lack of a trait by failing again, so they quit, thereby preserving their self-evaluations. The current study investigated two research questions. First, how do varying levels of inconsistent praise affect the two components of young children's motivation? Second, does inconsistent praise influence self-evaluation and persistence differently?

Method

Participants

Participants were 135 kindergarteners (5–6 years of age, mean age = 5.7 years, *SD* = 0.63). Slightly over half of the participants were female (56%). The majority of the sample (91%) was White, 4% was African American, 1% was Asian, and 2% was Hispanic. Participants were recruited from two public schools in the midwestern United States, and participation was based on returning a signed parental consent form.

Procedure and design

Three female undergraduate research assistants, blind to the hypotheses, collected the data. Participants were randomly assigned to one of five praise conditions (explained below). Interviews took approximately 15 min and were conducted individually in a quiet room in the children's school. Prior to the interviews, participants gave verbal assent to participate.

This study followed the methodology used by Cimpian and colleagues (2007) in which children were read scenarios. The scenarios depict the child drawing four pictures successfully and the teacher ("Debbie") giving the child either generic or nongeneric praise after each picture. The following is an example:

> One day you were playing at the drawing table with your green crayon and Teacher Debbie said, "[Child's name], will you make a tree for me?" and you said "OK, teacher." And so you started drawing a tree. First you drew the trunk and then the branches. Next you added the green leaves. You wanted to show the teacher the tree you drew, and so you said "Teacher, I drew a tree for you," and you looked back at the drawing and thought to yourself, "Yep, I drew a tree." When Teacher Debbie came over and saw the tree you drew, she said, "That looks like a tree." ["You are a good drawer." OR "You did a good job drawing."] (Cimpian et al., 2007, full script downloaded from http://psychology.stanford.edu/~acimpian/full_script.pdf)

These four success scenarios were followed by two failure scenarios in which the child "failed" to draw the pictures correctly. The following is an example:

> Another day you were playing at the drawing table with your black crayon. After a little while, Teacher Debbie says, "[Child's name], will you make a cat for me?" and you say "OK, teacher." First you draw a circle to make the cat's face. Next you add the body and color it in black. You look at what you did and think to yourself, "Uh-oh, the cat doesn't have any ears," but you want to show the teacher the cat you drew and so you say "Teacher, I drew a cat for you." The teacher looks at the cat you drew and says, "That doesn't look like a cat; it has no ears." (Cimpian et al., 2007, full script)

Finally, all children were read scenarios in which the child successfully completed the two failed drawings and the teacher gave the child nongeneric praise such as the following: "You found a really good way to draw the cat. I see that it is black and has ears."

Unlike Cimpian and colleagues' (2007) study, the current study manipulated the consistency of the praise type provided after completing each successful drawing. Instead of all four success trials receiving either generic or nongeneric praise, five levels of praise consistency were created by varying the percentages of nongeneric praise across the four trials: 0% (100% generic), 25% (75% generic), 50% (50% generic), 75% (25% generic), and 100% (0% generic). For example, a child in the 75% condition heard nongeneric praise on three of the successful drawing scenarios and heard generic praise on one of the scenarios, whereas a child in the 50% condition heard generic praise two times and heard nongeneric praise two times. To control for order effects, the order in which each type of praise was presented was counterbalanced across participants, resulting in four possible orders for children in the 25% and 75% conditions and six possible orders for children in the 50% condition. After hearing these four success trials with various levels of nongeneric praise, children heard two failure scenarios followed by two success trials.

Materials

Two puppets were used as actors during the scenarios representing the participating child and Teacher Debbie. Small pieces of colored pipe cleaner were used to represent the crayons described in the scenarios. No pictures were used or drawn.

Measures

Self-evaluation

After the four successful drawing scenarios and again after the two failure scenarios, children were asked four dichotomous self-evaluation questions similar to those in Cimpian and colleagues' (2007) study (e.g., "Did what happened in the dog [cat] story make you feel happy or sad?") (see Appendix for complete listing of questions). Each question was coded as being consistent with a mastery (1) or helpless (0) orientation (e.g., "Did what happened in the dog [cat] story make you feel happy or sad?" happy = mastery, sad = helpless). Averaging the four prefailure questions created a prefailure self-evaluation composite score. Likewise, the postfailure self-evaluation questions were averaged to create the postfailure self-evaluation composite score.

Persistence

Four dichotomous persistence questions (e.g., "If you had a chance to do something tomorrow, would you draw or do something else?") (see Appendix for specific questions) were asked after the failure scenarios. As with the self-evaluation questions, each question was coded as being consistent with a mastery (1) or helpless (0) orientation. There were two open-ended persistence questions: one for each failure scenario (e.g., "Think about the story where you drew a cat and forgot the ears. What would you do now?"). The authors coded these responses independently such that fixing the drawing after failure (i.e., persist) was coded as being consistent with a mastery orientation and doing something else after failure (i.e., not persist) was coded as being consistent with a helpless orientation. Interrater reliability was very high, with Cohen's kappa = .96 before discussion. A persistence composite score was created for each child by averaging the four persistence questions, similar to Cimpian and colleagues (2007).

Results

The results are organized into three sections: (a) analysis of variance (ANOVA) tests of differences among praise conditions for each composite score, (b) tests of linear trends, and (c) follow-up tests investigating the degree to which motivation behavioral patterns could be matched with praise condition. Preliminary *t* test analyses demonstrated no gender differences, and ANOVAs demonstrated neither order effects nor experimenter effects. As a result, all participants were combined within conditions for further analyses.

There were no significant differences for self-evaluations among the five praise conditions following the success trials (0%: $M = .97$; 25%: $M = .94$; 50%: $M = .95$; 75%: $M = .88$; 100%: $M = .96$), $F(4, 130) = 2.07$, $p = .09$, $\eta_p^2 = .06$. This result suggests that neither the type nor consistency of praise for successes influenced self-evaluation ratings prior to experiencing failure. After the two failure trials, however, there was a significant difference among the five praise conditions for self-evaluations, $F(4, 130) = 6.47$, $p < .001$, $\eta_p^2 = .17$, and persistence, $F(4, 130) = 7.57$, $p < .001$, $\eta_p^2 = .19$, demonstrating differences in both self-evaluations and persistence based on the level of consistent praise (see Fig. 1).

We next examined the relation between praise consistency and motivation. Weighted contrast testing for linear trends and Tukey's honestly significant difference (HSD) post hoc comparisons were conducted to examine the effect of praise condition on persistence and self-evaluation. A significant linear trend was found for both self-evaluations, $F(1, 130) = 18.79$, $p < .001$, and persistence, $F(1, 130) = 28.21$ $p < .001$, suggesting that, overall, the more nongeneric praise children heard, the higher the self-evaluations and persistence. In other words, as the proportion of nongeneric praise increased, children rated themselves and their drawings more positively and were more likely to choose to continue drawing. HSD post hoc tests were used to test all pairwise comparisons of mean self-eval-

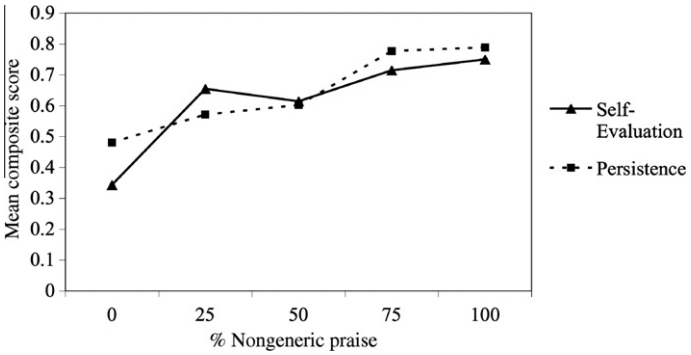

Fig. 1. Mean self-evaluation and persistence scores after failure by praise condition.

uation and persistence scores among conditions. On average, the self-evaluation score for the 0% group (heard only generic praise) was significantly lower than the self-evaluation scores for all other groups (see Fig. 1), suggesting that children receiving nongeneric praise after at least one of four trials had significantly higher positive self-evaluations than children receiving only generic praise. Conversely, a comparison of the average persistence scores indicated that the scores for the 75% group (heard nongeneric praise on three of four trials) and the 100% group (heard only nongeneric praise) were significantly higher than the scores for the 0% and 25% groups (Fig. 1), suggesting that persistence was much more likely when children heard nongeneric praise on at least three of four trials. A relatively small proportion of nongeneric praise (25%) increased self-evaluations, whereas a higher proportion of nongeneric praise (75%) seemed to be necessary to increase persistence. The results suggest that self-evaluation and persistence are separate dimensions that are affected differently by the consistency of praise type.

Next we conducted an individual analysis to determine how each individual participant's ratings of self-evaluations and persistence related to the consistency of praise. Children were categorized as either high or low on postfailure self-evaluations and persistence. Self-evaluation and persistence scores were determined to be high if at least three of the four responses were coded as mastery; otherwise, they were categorized as low. Each child was then given one of four possible classifications: (a) high self-evaluation/high persistence ($n = 39$), (b) low self-evaluation/high persistence ($n = 43$), (c) high self-evaluation/low persistence ($n = 28$), or (d) low self-evaluation/low persistence ($n = 25$). These groups were then compared by praise condition. There were significant differences in the number of children in each of these four categories among praise conditions, $\chi^2(12, N = 135) = 2.3$, $p < .001$ (Fig. 2). Specifically, most children demonstrating low self-evaluation/low persistence were in the 0% and 25% groups, and most children demonstrating high self-evaluation/high persistence were in the 75% and 100% groups. Furthermore, there were more high self-evaluation/low persistence children in the 0%, 25%, and 50% groups than in the 75% and 100% groups. Finally, children demonstrating low self-evaluation/high persistence were fairly evenly distributed among the groups.

Discussion

The purpose of this study was to investigate the influence of inconsistent praise on young children's motivation. Our results replicate previous findings demonstrating that nongeneric praise promotes mastery behaviors and generic praise promotes helpless behaviors (Cimpian et al., 2007; Kamins & Dweck, 1999; Mueller & Dweck, 1998). In addition, our results demonstrate two novel findings. First, our findings suggest that, on average, the more nongeneric praise children hear, the more likely children are to display mastery behaviors. In other words, as the amount of nongeneric praise increases, children are more likely to demonstrate positive self-evaluations and persistence after experiencing failure.

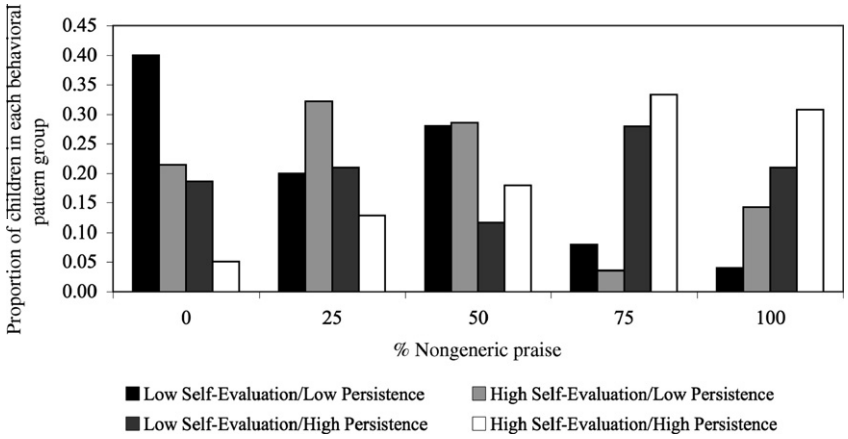

Fig. 2. Proportions of children demonstrating behavioral patterns created by mean splits of high and low persistence and self-evaluation within praise condition.

Second, inconsistent praise appears to affect self-evaluation and persistence differently. On average, children who heard the smallest proportion of nongeneric praise (one of four praise statements) demonstrated higher self-evaluations than children who heard all generic praise. However, persistence remained relatively low unless children heard a majority of nongeneric praise (at least three of four praise statements). This suggests that children may require only a small amount of nongeneric praise to increase their positive self-evaluations. In contrast, a majority of nongeneric praise is necessary to increase persistence after failure.

These findings extend our understanding of how type of praise influences motivation. As described previously, the information conveyed by each type of praise appears to influence children's expectations about the causes underlying goal achievement. Generic praise suggests that achievement is related to the possession of a stable trait, whereas nongeneric praise suggests that achievement is related to effort. However, receiving inconsistent praise does not present a clear causal explanation to recipients of the praise, and this in turn affects their self-evaluations and persistence differently.

Our results suggest that (a) different types of praise may have different "weights" and (b) these weights vary by motivation component. Generic praise appears to have a stronger influence on persistence than nongeneric praise. In the face of inconsistent praise, the presence of any generic praise appears to increase the belief that an underlying trait may play a role in performance. In contrast, nongeneric praise appears to have a stronger "protective" influence on self-evaluations than generic praise. The combination of high self-evaluation and low persistence may reflect self-protective behaviors (Burhans & Dweck, 1995) in which children choose not to persist so as to protect their self-worth. Interestingly, as demonstrated in the individual analysis, children who heard inconsistent praise were more likely to exhibit self-protective behaviors. Specifically, children who heard some nongeneric praise exhibited these self-protective behaviors, whereas children who heard all generic praise exhibited lower self-evaluations as well as lower persistence. The presence of a small amount of nongeneric praise may allow children to maintain self-evaluations so long as there is not consistent evidence of failure, as would be present if the children persisted and failed again.

One possible explanation as to why inconsistent praise influences self-evaluations and persistence differently is that inconsistent praise highlights different aspects of the failure. Generic praise has been found to increase the salience of mistakes and failure and to increase performance anxiety (Cimpian, 2009; Dweck, 2006). Even a small amount of information that failure is related to a lack of effort may suggest that success is not entirely trait based. However, performance anxiety may arise from a belief that further failure would provide evidence that one lacks a trait critical for success (Dweck, 2006). The two components of motivation are related in that children appear to quit (i.e., choose other tasks instead of the failed task) so that they may maintain positive self-evaluations. Future research should

examine whether inconsistent praise focuses children's attention on different aspects of the task, feelings about failure, or fear of future failure.

Overall, this study has demonstrated that the consistency of generic versus nongeneric praise influences children's motivation. Inconsistent praise (a combination of generic and nongeneric praise) may promote children's positive feelings about themselves and their work, but it did not increase persistence unless children heard at least 75% nongeneric praise. The presence of a small amount of nongeneric praise (related to controllable behaviors such as effort) appears to protect self-evaluation even though it does not increase persistence. In conclusion, to strengthen mastery motivation (positive self-evaluations and task persistence) in children, it is important for children to hear a majority of nongeneric praise.

Acknowledgments

The authors thank Diane Lickenbrock, Amy Masnick, Julianne Turner, and Corinne Zimmerman for comments on a previous draft.

Appendix.

Self-evaluation questions

Do you like the dog that you drew or do you not like it?

How much do you like/not like it? Use these faces to help. [Show scale and point to each face as you label it]. Do you REALLY LIKE IT? Do you SORT OF LIKE IT? Do you SORT OF NOT LIKE IT? Or do you REALLY NOT LIKE IT?[a]

Did what happened in the dog story make you feel happy or sad?

How happy/sad? Use these faces to help. [Show scale and point to each face as you label it]. Does it make you feel REALLY HAPPY? Does it make you feel SORT OF HAPPY? Does it make you feel SORT OF SAD? Or does it make you feel REALLY SAD?[a]

Did everything that happened in the dog story make you feel like you were good at drawing or not good at drawing?

Did everything that happened in the dog story make you feel like you were a good boy/girl or not a good boy/girl?

Persistence questions

On another day, when you had a chance to draw one of these again, would you want to draw the bus, want to draw the cat, or want to draw the tree you drew first?

If you had a chance to do something tomorrow, would you draw or would you do something else?

Think about the story where you drew a cat and forgot the ears. What would you do now?

Think about the story where you drew a bus and forgot the wheels. What would you do now?

Source: Adapted from Cimpian, Arce, Markman, and Dweck (2007).

[a] These questions were not included in the results because the data did not add to or change the pattern of results and, thus, were excised for brevity. The scale questions always followed the yes/no questions and, thus, did not influence the yes/no responses.

References

Barrett, K. C., Morgan, G. A., & Maslin-Cole, C. (1993). Three studies on the development of mastery motivation in infancy and toddlerhood. In D. J. Messer (Ed.), *Mastery motivation in early childhood: Development, measurement, and social processes* (pp. 83–108). New York: Routledge.

Burhans, K., & Dweck, C. S. (1995). Helplessness in early childhood: The role of contingent worth. *Child Development, 66*, 1719–1738.

Cimpian, A. (2009). *The impact of generic vs. non-generic language on children's motivation*. Poster presented at the Cognitive Development Society Conference, San Antonio, TX.

Cimpian, A., Arce, H., Markman, E. M., & Dweck, C. S. (2007). Subtle linguistic cues impact children's motivation. *Psychological Science, 18*, 314–316.

Cimpian, A., Gelman, S. A., & Brandone, A. C. (2010). Theory-based considerations influence the interpretation of generic sentences. *Language and Cognitive Processes, 25*, 261–276.
Cimpian, A., & Markman, E. M. (2008). Preschool children's use of cues to generic meaning. *Cognition, 107*, 19–53.
Diener, C., & Dweck, C. (1978). An analysis of learned helplessness: Continuous changes in performance, strategy, and achievement cognitions following failure. *Journal of Personality and Social Psychology, 36*, 451–462.
Diener, C., & Dweck, C. (1980). An analysis of learned helplessness: II. The processing of success. *Journal of Personality and Social Psychology, 39*, 940–952.
Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist, 41*, 1040–1048.
Dweck, C. S. (2002). Messages that motivate: How praise molds students' beliefs, motivation, and performance (in surprising ways). In J. Aronson (Ed.), *Improving academic achievement: Impact of psychological factors on education* (pp. 37–60). San Diego: Academic Press.
Dweck, C. S. (2006). *Mindset*. New York: Random House.
Dweck, C. S., & Leggett, E. (1988). A social cognitive approach to motivation and personality. *Psychological Review, 95*, 256–273.
Gelman, S. A. (2003). *The essential child: Origins of essentialism in everyday thought*. New York: Oxford University Press.
Gelman, S. A., & Raman, L. (2003). Preschool children use linguistic form class and pragmatic cues to interpret generics. *Child Development, 24*, 308–325.
Henderlong, J., & Lepper, M. R. (2002). The effects of praise on children's intrinsic motivation: A review and synthesis. *Psychological Bulletin, 128*, 774–795.
Heyman, G., & Gelman, S. A. (1999). The use of trait labels in making psychological inferences. *Child Development, 70*, 604–619.
Jennings, K. D., & Dietz, L. J. (2003). Mastery motivation and goal persistence in young children. In M. H. Bornstein, L. Davidson, C. L. M. Keyes, & K. A. Moore (Eds.), *Well-being: Positive development across the life course* (pp. 295–309). Mahwah, NJ: Lawrence Erlbaum.
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.
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.
Reissland, N. (1994). The socialization of pride in young children. *International Journal of Behavioral Development, 17*, 541–552.
White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review, 66*, 297–333.
Zentall, S. R. (2009). *Early parent–child relationship and type of parental praise and criticism as predictors of toddler motivation on an unsolvable task*. Unpublished doctoral dissertation, University of Notre Dame.