Has Goal Setting Gone Wild, or Have Its Attackers Abandoned Good Scholarship?

by Edwin A. Locke and Gary P. Latham

Executive Overview

We believe that Ordo´n˜ez, Schweitzer, Galinsky, and Bazerman (2009), in their critique of goal setting, have breached the principles of good scholarship. Rather than conducting or integrating research, they chose to draw their central theme from anecdotal evidence. Further, they employ unrepresentative citations from the literature, the misreporting of results, and the use of emotionally laden metaphors rather than dispassionate language. Moreover, almost all the pitfalls of goal setting they cite, rather than being original, have already been published—by us. In this rejoinder, we highlight these shortcomings.

Poor scholarship in the behavioral sciences includes (a) making causal inferences on the basis of anecdotal stories, (b) ignoring confounding variables, (c) citing unrepresentative studies from a research domain, (d) misreporting results, and (e) using emotionally laden language to garner reader support rather than writing dispassionately and striving to remain objective. Ordo´n˜ez et al. (2009), in their critique of goal setting, demonstrate these aspects of poor scholarship.

Goal Setting as Salve and as Dangerous

Ordo´n˜ez et al. (2009) assert that goal setting should not be “an ‘over-the-counter’ salve for boosting performance” and should come with a “warning label” (p. 6). A salve is defined in the American Heritage Dictionary (1992 edition) as “1. An analgesic or medical ointment. 2. Something that soothes or heals. 3. Flattery or commendation.” Goal setting, to the best of our knowledge, has always been presented as an effective technique to motivate performance, not as a soothing ointment and certainly not as a panacea for every problem, if that is what Ordo´n˜ez et al. (2009) are implying by their metaphor. Later in their paper they describe goal setting as a “prescription-strength medication” posing such a great danger that it needs “close supervision” (p. 14). Their language is a flagrant appeal to emotion. But based on what? The answer is largely anecdotes.

The Use of Anecdotes

Arguably all scholars in the behavioral sciences are aware of the flaws in drawing conclusions from a case study. The dangers in doing so were explained cogently nearly half a century ago. Campbell and Stanley (1963, p. 6) stated, “Any appearance of absolute knowledge or intrinsic [i.e., general] knowledge about singular isolated objects is found to be illusory upon analysis.” As pointed out even earlier by Boring (1954), a case study has such a total lack of controls that it has very limited scientific value.

Despite the limitations of a case study, it nevertheless excels in quality relative to an anecdotal story or stories printed in a news periodical. Unlike a case writer who is required to make specific, detailed observations, a news reporter typically relies on people’s memories of events, and then

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makes speculative causal inferences. Furthermore, it is routine for reporters to misquote people or quote them out of context. Their standards for objectivity and rigor are a far cry from those in the behavioral sciences.

Given the above, and given the inevitable confounding of variables in anecdotes, it is incomprehensible that scholars, rather than subject their speculations to programmatic research, would simply rely on stories in news periodicals. In doing so, Ordoñez et al. (2009) have made what Campbell and Stanley (1963) labeled the error of misplaced precision.

An aspect of the problem of treating anecdotes as evidence is the ease with which anecdotes can be found to make an opposing argument. For every emotional story of how “absence can make the heart grow fonder,” there are equally compelling ones supporting the heartless contention of “out of sight, out of mind.” Similarly, for every story Ordoñez et al. (2009) can tell about goal setting being detrimental (e.g., Sears Roebuck), there are opposing stories, such as how the use of stretch goals contributed to GE’s organizational success (e.g., see Slater, 1999, pp. 170ff). Similarly, in citing the scholarly literature, Ordoñez et al. (2009) report Kerr’s (1975) and Sherman’s (1995) articles to further demonstrate the pitfalls of setting a goal, while failing to report Kerr’s much more recent article, published in a precursor to this journal (Kerr & Landauer, 2004), on the benefits obtained from goal setting at GE and Goldman Sachs. The 2004 article was written long after Kerr had left academia to work full time at GE and currently Goldman Sachs.

All behavioral scientists committed to scholarship know that to document the average effect size of a variable, one gathers evidence through the scientific method rather than reporting selected “war stories.” The former was done with regard to goal setting by Locke and Latham (1990); the latter was done by Ordoñez et al. (2009). Thus there is absolutely no scientific evidence for their assertion that “goals should be used only in the narrowest of circumstances” (p. 12). Their assertion is simply arbitrary.

Confounding Variables

Ordoñez et al. (2009) use medical terms as metaphors to garner reader attention on the dangers of goal setting. As noted above, anecdotes and cases are loaded with confounding variables that preclude causal inferences. For example, news reports exist showing that physical exercise has led to strained muscles, broken bones, and death due to heart attacks. Does this suggest that systematic harm is caused by physical exercise? Should the voluminous medical studies that exist showing the beneficial effects of physical exercise on multiple dependent variables (e.g., blood pressure, cholesterol, weight, longevity) be ignored due to the harm physical exercise might cause, when a small number of people might do the wrong kind of exercise in the wrong way? Following this logic, would one have to conclude that physical exercise should take place only in the “narrowest of circumstances”? No. But this is the logic used by Ordoñez et al. (2009) in attacking the effectiveness of goal setting.

Their examples of the downsides of goal setting are frequently confounded with monetary incentives. Although they acknowledge the problems that inappropriate monetary incentives can cause, they conclude that goals are the blameworthy variable. But there is little evidence for their arbitrary conclusion. What is known to date is that an incentive may increase goal commitment (Locke & Latham, 1990) and that bonuses for goal attainment may undermine performance if the goals are viewed as unattainable (Lee, Locke, & Phan, 1997). One laboratory experiment found that goals and/or incentives promoted cheating (Schweitzer, Ordoñez, & Douma, 2004). Fair enough, but is this a typical finding? No evidence of inappropriate behavior was found when loggers were paid on a piece-rate system and specific high yet attainable goals were assigned (Latham & Kinne, 1974), nor was there evidence of inappropriate behavior when goals were set and a monetary bonus was provided for engineers/scientists (Latham, Mitchell, & Dossett, 1978). Neither of these studies was reported by Ordoñez et al. Nor did they report the recent laboratory experiment by Quigley et al. (2007) that investigated ways to
combine monetary incentives with goal setting to increase knowledge sharing and enhance performance. (For more on this, see Locke, 2004).

If research is to be ignored and news reports are to be embraced, Ordoñez et al. (2009) need look no further than The Economist (February 6, 2009, p. 81) for an article on the “bonus racket” in which there is no reporting of goal setting. Instead the argument is made that “the trigger for incentives (as well as the payments themselves) need to be longer term in nature. Bonuses could still be paid annually but based on the average performance over several years.” This quote focuses solely on monetary bonuses, but it is not based on scientific evidence. The point here is not that this news report is more accurate than those supplied by Ordoñez et al. (2009), but rather the ease with which one can find news articles to support an argument for almost anything one is for or against.

In a qualitative study, Charan (2005) suggested that the key to organizational effectiveness is tying a CEO’s monetary incentives to the right goals, having the correct strategy for attaining these goals, and having a governance system that doesn’t just prevent misdeeds, but actually improves the corporation. The primary conclusion of the study is the importance of a board of directors who insist on “good” governance. This is not scientific evidence, but nevertheless, these qualitative data suggest the hypothesis that a quantitative analysis would reveal both additive and interaction effects for these three variables. Note, however, that choosing the “right” goals reflects values.

But, if one insists on reporting only selected examples rather than conducting systematic research, one need look no further than BB&T bank (which uses goals), where the board and CEO have developed and implemented a code of ethics. Employees are selected based on their moral character (as well as ability), are exposed to the company value system during training, and are evaluated during performance appraisal in terms of their adherence to ethical behaviors. Unethical employees are fired. This bank has had no scandals and has been consistently profitable. In short, examples are easily found that show that ethical governance/value systems can work (Locke, 2008). But again, case examples do not qualify as scholarship. In the social sciences, one wants to draw causal inferences based on systematic research that eliminates confounding variables and shows that researcher preconceived biases have been minimized.

**Goal Benefits and Pitfalls**

No one is likely to argue that the medical profession should ignore the possible dangers of physical exercise. Similarly, no one would argue that the possible negative or null effects of setting goals should be suppressed by those who do empirical research. As scholars in the behavioral sciences know, goal setting theory from its inception (Locke & Latham, 1990) has stressed the necessity of identifying moderator variables.

What may be normal for reporters but egregious for scholars is to suggest, as Ordoñez et al. (2009) do, that possible negative effects of goal setting have been ignored. As scholars in the behavioral sciences are aware, motivation is the result of a combination of the need for physical and psychological well-being and personal traits, as the latter historically have been viewed as needs or drivers. An individual difference variable rooted in needs is values, including moral values (Latham, 2007; Latham & Pinder, 2005; Locke & Henne, 1986).

The needs, traits, and values of at least three dictators in the 20th century led them to set goals for genocide. Despite individual differences in values, does this fact imply that all leaders should fear setting goals due to their possible toxicity? The answer is obviously no.

Five theories of motivation in organizational behavior have goals (or intentions) as core or key variables: Maslow’s (1943) need hierarchy, Fishbein and Ajzen’s (1975) theory of reasoned action, Bandura’s (1986) social cognitive theory, Locke and Latham’s (1990) goal setting theory, and Carver and Scheier’s (1998) control theory. Voluminous empirical research shows that goals affect a person’s choices; they give direction to a person’s pursuits. Moreover, a goal to which a person is committed increases effort, prolongs persistence, and cues people to search for strategies to attain it (Locke & Latham, 1990).

A goal is a regulatory mechanism for monitor-
ing, evaluating, and adjusting one’s behavior. A goal can provide purpose to an otherwise meaningless task; it provides a sense of accomplishment. It is a standard for assessing one’s personal effectiveness. Yet none of these benefits are reported by Ordoñez et al. (2009). Nevertheless, goal setting, as is true for any technique in the behavioral sciences, let alone any drug or pill in medicine, is subject to misuse. Ordoñez et al. (2009) focus almost exclusively on the possible misuses or downsides of goal setting. What is egregious on their part is suggesting that goal setting researchers have suppressed or ignored possible misuses in order to advance their careers.

In fact, we were among the first to alert practitioners to the possible dangers of setting goals (Locke & Latham, 1984). An entire chapter of our book was devoted to the following topics: excessive risk taking, increases in stress, feelings of failure, using goals as a ceiling for performance, ignoring nongoal areas, short-range thinking, and dishonesty/cheating. Ordoñez et al. (2009) do not cite this work despite the fact that the first author, Locke, sent this chapter to Ordoñez more than 10 years ago after she visited him in his office. In that chapter, Locke and Latham proposed specific methods for mitigating these possible goal pitfalls.

Ordoñez et al. do cite a more recent article written by Latham and Locke (2006) for practitioners on the potential pitfalls of goal setting. The topics included using performance goals when one should use learning goals, competition vs. collaboration, goals perceived as threatening, goals enhancing/reducing risk taking, repeated goal attainment resulting in reliance on an outmoded strategy, inappropriate goal-reward linkages, tying goal attainment to self-esteem, ignoring nongoal performance dimensions, and increases in stress. Again, solutions for these potential drawbacks to setting goals were offered. Yet Ordoñez et al. (2009) dismiss them as “untested” (p. 13) and “difficult to follow” (p. 14). They then not only present many of the problems previously acknowledged by Latham and Locke as if they were new discoveries, they report essentially the same solutions in their Table 1. So what are they reporting to readers that both scholars (see Latham, 2007) and practitioners do not already know? The answer is: very little.

Citing Unrepresentative Studies (and Not Citing Relevant Studies)

A scholar strives to minimize his or her preconceived biases by providing a representative, even if not complete, review of the literature. Reporters with an axe to grind typically report only those studies that support their bias. As noted earlier, Ordoñez et al. (2009) are selective in their reporting an early article by Kerr and ignoring his recent one that explicitly explained the benefits of goal setting in organizational settings. Similarly in their report of issues involved in setting multiple goals, they fail to mention Locke and Latham’s (1990) review of studies of multiple goals and their ideas for eight possible moderators, and Mitchell et al.’s (2009) theoretical article on the topic.

Ordoñez et al. (2009) report their support for findings from laboratory experiments and yet conclude that goals inhibit learning. But they choose not to report the beneficial results on performance obtained in laboratory experiments on learning goals (e.g., Seijts, Latham, Tasa, & Latham, 2004). Nevertheless they admit that Locke and Latham recommended that learning goals be used when tasks are complex but then jump to the suggestion, without evidence, that maybe “learning goals should be the norm” (p. 11). However, they fail to report that laboratory experiments show that performance suffers when a learning goal is set when the person already has the requisite skill to attain it (e.g., Winters & Latham, 1996). Learning results in knowledge acquisition, but knowledge is not always applied unless performance goals are set (Earley & Perry, 1987).

Ordoñez et al. (2009) assert that failure to attain a goal can lead to low self-efficacy. It can, but once again they fail to report studies showing that high self-efficacy leads to resilience (Bandura, 1997); nor did they report that Bandura has identified various methods for increasing efficacy.

Ordoñez et al. (2009) report the problem of the time horizon for setting goals, but they ignore the theoretical work of Fried and Slowick (2004) on
this issue. They also do not acknowledge that all businesses have to focus on both the long and the short term. If management focuses only the long term and ignores the short term, they will not make it to the long term. If management ignores the long term due to focusing only on the short term, there is no long term either. Goal theory has no position on the best way to integrate short- and long-term goals, although laboratory studies (once again not reported by Ordoñez et al., 2009) suggest that proximal goals may aid the attainment of distal goals (see Latham, 2007, p. 183).

Ordoñez et al. stress the possibility that goals may cause dysfunctional competition. They cite Mitchell and Silver (1990) yet fail to acknowledge much more recent work by Wong, Tjosvold, and Yu (2005) showing how and why this may not occur. Ordoñez et al. (2009) also fail to report the work of Seijts and Latham (2000), who found that when an individual’s goals are compatible with group goals, group performance is enhanced, and when there is conflict between the two, group performance is harmed.

With regard to bargaining/negotiating studies, a meta-analysis by Zetik and Stuhlmacher (2002) showed that negotiators, who by definition have conflicting goals, nevertheless consistently attain higher profits when they have a specific goal. And in addition, the meta-analysis showed that the higher the goal, the higher the performance. Personal communications (2009) with two experts in bargaining, Rick Larrick and Margaret Neale, revealed that goal effects can be positive or negative, because there are moderating factors that determine how goals affect bargaining outcomes. Nevertheless Ordoñez et al. (2009) report only negative studies, including some from Larrick and Neale.

For reasons that do not follow from their arguments against the use of goal setting, Ordoñez et al. (2009) imply that Deci and Ryan’s (1990) self-determination theory should be used as a framework for the motivation of employees. They advocate this position without reporting the extensive critiques of the viability of this theory for work settings (Bandura, 1977, 1986, 1997; d’Ailly, 2004; Fay & Frese, 2000; Latham, 2007; Locke & Latham, 1990). In addition, they fail to report the review by Gerhart and Rynes (2003), which shows that there is no consistent evidence that monetary rewards undermine intrinsic motivation, except in children. They further fail to report that Locke and Latham (1990), in their review of the goal/intrinsic motivation literature, found that there was no consistent effect of goals on intrinsic motivation.

Although arguably “smart” reporting, it is egregious scholarship to misrepresent the findings of a study. Ordoñez et al. (2009) do this for two of the studies they cited. They selectively report the negative but not the positive results obtained. It is true that Mossholder (1980) found negative effects of goals on intrinsic motivation on a complex task, but he also found positive effects on a simple task. Shalley and Oldham (1985) found that intrinsic motivation increased following goal attainment and decreased after goal failure.

In summary, Ordoñez et al.’s (2009) article is not a scholarly way to approach any topic in science, including organizational behavior. Using extreme statements, unverified assertions, unrepresentative references, and scare tactics for practitioners is irresponsible. The tone of their article and the presentation of the content do not suggest an objective search for truth. They argue that there should be more research showing the negative effects of goals. No one has suggested otherwise. But if they are found, to advance theory and practice such studies should also identify ways to avoid negative effects. A useful example would be how an ethical organizational culture and/or various governance systems work to prevent dishonest practices in the pursuit of goals.

Future research is needed to address the following questions: What types of needs, traits, values, or governance systems minimize or eliminate cheating? What type of monetary systems reward goal progress without demanding goal attainment (see Latham & Kinne, 1974; Latham, Mitchell & Dossett, 1978)? How are monetary incentives optimally tied to goal setting? Useful field studies would examine the overall effectiveness of goals (both pro and con) and systematically look at how more versus less successful companies use goals to increase their effectiveness (e.g., GE vs. Sears).
Conclusions

We find the following statement by Ordóñez et al. (2009) to be indefensible: “[G]oal setting advocates have met their specific, challenging goal of becoming publishing juggernauts, at the expense of the broader objectives of providing scientific rigor and sound managerial advice” (p. 14). Goal setting theory is arguably the most rigorously developed theory in the history of organizational behavior or industrial-organizational psychology (e.g., see Pinder, 1998). How should one communicate such a theory—or any theory—without publication in some form? Falsehoods and insults aside, are Ordóñez et al. (2009) implying that more knowledge about goals is yet to be discovered? If so, this is a specious criticism. Goal-setting theory was developed inductively (Latham, 2007; Locke, 2002, 2007; Locke & Latham, 2005) by cumulating evidence from numerous, individual, empirical studies. Since it is an open-ended theory, there is always more to be discovered. The proper scientific standard here is not omniscience but rather progress. Much progress has been made to date, and more will be made in the future through systematic research.

Despite unscholarly attacks, goal setting is not going away. Organizations cannot thrive without being focused on their desired end results any more than an individual can thrive without goals to provide a sense of purpose. Purposeful activity is the essence of living action. If the purpose is neither clear nor challenging, very little gets accomplished. Rather than abandoning scholarship to report personal biases, scientists should do what they do best: design good studies to investigate phenomena of interest. As Mischel (2009) has stated, science thrives when important and interesting questions lead to clever data gathering and consequential findings. Ordóñez et al. (2009) would do well to abandon their roles as reporters with an axe to grind and embrace good scholarship.

References


