Goal Commitment and the Goal-Setting Process: Conceptual Clarification and Empirical Synthesis

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Goals are central to current treatments of work motivation, and goal commitment is a critical construct in understanding the relationship between goals and task performance. Despite this importance, there is confusion about the role of goal commitment and only recently has this key construct received the empirical attention it warrants. This meta-analysis, based on 83 independent samples, updates the goal commitment literature by summarizing the accumulated evidence on the antecedents and consequences of goal commitment. Using this aggregate empirical evidence, the role of goal commitment in the goal-setting process is clarified and key areas for future research are identified.

Motivation continues to be a compelling topic for managers and researchers. In this vast literature, goals have emerged as a central, pervasive construct (Austin & Vancouver, 1996). Goals are particularly integral among current theories of motivation that emphasize self-regulation. These perspectives include task goal theory (e.g., Locke & Latham, 1990), social–cognitive theory (e.g., Bandura, 1986), resource allocation theory (e.g., Kanfer & Ackerman, 1989), and control theory (Klein, 1989). These theories differ in several respects, but all feature goals as a central determinant of motivation (Phillips, Hollenbeck, & Ilgen, 1996).

The bulk of the work examining goals as predictors of performance has been done within task goal theory. The basic finding from this theory is that under certain conditions, specific, difficult goals can lead to higher levels of performance relative to vague or easy goals (see Locke & Latham, 1990). One of the most often cited assumptions or conditions necessary for this relationship to hold is that there is commitment to that specific, difficult goal. Goal commitment, one’s determination to reach a goal (Locke & Latham, 1990), has been a central concept in goal-setting theory since its inception.

In his 1968 article that launched the theory, as well as in two subsequent reviews of the goal-setting literature (Locke, Shaw, Saari, & Latham, 1981; Locke & Latham, 1990), Locke and his colleagues recognized that if there is no commitment, a goal can have no motivational effect. Although goal commitment has played a central conceptual role in the development of task goal theory, the empirical examination of goal commitment was largely absent from early goal-setting research. Two separate reviews published in the late 1980s (Hollenbeck & Klein, 1987; Locke, Latham, & Erez, 1988) noted that the body of empirical evidence on goal commitment’s consequences and antecedents was insufficient given the variable’s central role in the goal-setting process. In fact, Hollenbeck and Klein concluded that the most frequent treatment of goal commitment in the goal-setting literature was to not measure the variable at all but then to offer it up as an unvalidated, post hoc explanation whenever the goal difficulty effect was negligible, weak, or conditional on other variables.

Those reviews reiterated the important role of goal commitment, documented the absence of systematic research investigating this crucial construct, and provided frameworks for guiding its investigation. Research in the area of
goal setting has paid more attention to the construct of goal commitment in the wake of those reviews. The purpose of this article is to report the results of a meta-analysis that examined the consequences and antecedents of goal commitment. This meta-analysis updates the goal commitment literature roughly 10 years after the Locke et al. (1988) and Hollenbeck and Klein (1987) reviews and, using that aggregate empirical evidence, seeks to clarify the role of goal commitment in the goal-setting process and identify key areas for future research.

Consequences of Goal Commitment

The primary consequence of goal commitment is to moderate the relationship between goal difficulty and performance. There is considerable confusion in the literature about this relationship despite the fact that this assertion is consistent with both early (Locke, 1968) and more recent (Locke & Latham, 1990) formulations of task goal theory. The confusion stems in part from the specific form of this moderated relationship, technically referred to as an uncrossed interaction (Stone & Hollenbeck, 1984). As illustrated in Figure 1, high performance comes about only when goal difficulty and goal commitment are both high. Difficult goals do not lead to high performance when commitment is low and high levels of commitment to easy goals also fail to generate high performance. Stated differently, a strong linear relationship should be evident between goal difficulty and performance when commitment is high and goal difficulty should be unrelated to performance when commitment is low. Because of the uncrossed nature of this interaction, main effects rather than the interaction can be expected under certain operational conditions. In such situations, the failure to observe a significant interaction does not mitigate or refute the critical role of goal commitment.

For example, the moderation hypothesis assumes that there is sufficient variance in both goal commitment and goal difficulty. This is often not the case in goal-setting research or practice. Goal commitment cannot moderate the relationship between goal difficulty and performance if there is little variance in commitment. To function as a moderator, some individuals must have high commitment, some moderate commitment, and some low commitment. In situations in which goals are self-set, goal commitment is generally high and invariant (Hollenbeck & Brief, 1987). Even when goals are assigned, situational demands (e.g., incentives, competition, experimenter demand, legitimate power) often result in uniformly high levels of commitment (Locke & Latham, 1990). Under such circumstances, a main effect of goal difficulty on performance should be evident and goal commitment should have negligible effects, main or interactive (e.g., Klein, 1991; Matsui, Kakuyama, & Onglatco, 1987; Wright & Kacmar, 1995). Even when there is variance in commitment, either within or across studies, there should be a main effect for goal difficulty on performance, averaged across all levels of commitment. The dashed line in Figure 1 shows this average effect. This main effect for goal difficulty on task performance across studies has been documented elsewhere (e.g., Mento, Steel, & Karen, 1987), and establishing this parameter was not a purpose of the present study.

Goal commitment also cannot moderate the relationship between goal difficulty and performance if there is insuffi-
cient variance in goal difficulty levels. That is, some individuals must have easy goals, some moderate goals, and others difficult goals. Although this is the case in some situations, all employees or participants are often assigned the same challenging goal that violates this assumption. In situations in which only challenging goals are present, commitment can be expected to have a main effect on performance (e.g., Harrison & Liska, 1994; Johnson & Perlow, 1992; Klein & Kim, 1998). When everyone has the same difficult goal, individuals with higher commitment to that goal should outperform those with lower commitment. Even when there is variance in goal difficulty, either within or across studies, this main effect for goal commitment on performance should be evident, averaged across all levels of goal difficulty. The average effect for goal commitment is illustrated by the Xs corresponding to “average goal difficulty” in Figure 1. When goal difficulty levels are averaged, higher levels of commitment are associated with higher levels of performance. Unlike the main effect of goal difficulty, this overall main effect for goal commitment has not been established meta-analytically and thus serves as the first purpose of this meta-analysis.

**Hypothesis 1:** There will be a positive relationship between goal commitment and performance averaged across studies.

Although range restriction in either goal difficulty or commitment is a common problem within studies, there have been studies with sufficient variance in both goal difficulty and goal commitment that have supported the interactive effect (e.g., Erez & Zidon, 1984; Tubbs, 1993). Across the research that has been conducted, the interactive nature of the relationship depicted in Figure 1 should also be evident. Figure 1 suggests that low standings on either variable will negate the generally positive relationship between performance and the other variable. Thus, the relationship between commitment and performance will be stronger with difficult goals relative to easy goals. That is, goal difficulty moderates the relationship between commitment and performance. This moderating effect of goal difficulty on the commitment–performance relationship has not been fully examined meta-analytically and thus serves as the second purpose of this meta-analysis.

**Hypothesis 2:** There will be a significant amount of variability in the goal commitment–performance relationship that cannot be explained by sampling error or artifacts.

**Hypothesis 3:** Goal difficulty will moderate the relationship between goal commitment and performance, such that the relationship between commitment and performance will be stronger for difficult goals relative to easy ones.

In the goal-setting literature, this interaction is typically stated in terms of commitment moderating the goal difficulty–performance relationship. Hypothesis 3 has goal difficulty moderating the goal commitment–performance relationship because goal difficulty levels can be categorized more objectively for conducting a meta-analytic moderator analysis than levels of goal commitment. Because interactive relationships are symmetrical in nature (Cohen & Cohen, 1983), the conclusion that goal difficulty moderates the goal commitment–performance relationship necessarily substantiates the idea that goal commitment moderates the goal difficulty–performance relationships. Thus, the way we used meta-analysis to test for moderation was indirect, but the overall conclusion remained the same: High levels of both commitment and goal difficulty are necessary to achieve high levels of performance.

An alternative approach to meta-analytically test the interaction hypothesis would be to directly aggregate the effect sizes for this interaction reported in the literature (e.g., Donovan & Radoevich, 1998). Such an approach is problematic because of serious limitations in the data available in the literature. First, only a handful of published studies have reported directly testing the interaction hypothesis using multiple regression. Second, for some of those studies, an interaction would not be expected because of the problem of restricted variance discussed earlier. For example, Donovan and Radoevich (1998) included Harrison and Liska (1994) in their analysis even though goals were held constant in that study. Third, some studies presenting strong evidence of the interaction effect (e.g., Erez & Zidon, 1984) did not use a multiple regression approach and could not be included. Also excluded from such an approach are the dozens of published studies that examined goals, commitment, and performance but did not report any moderator analyses. As a result, Donovan and Radoevich’s analyses were limited to data from only 6 published articles, whereas the current meta-analytic test for moderation was based on data from more than 60 published articles. To directly test the interaction hypothesis based on a representative sample of all studies measuring goals, commitment, and performance, one would need to have the study intercorrelations between the main effect variables and their cross-products. Such statistics do not exist in the literature.

**Antecedents of Goal Commitment**

If goal commitment has important performance consequences, as predicted, then attention must also be directed at factors that affect goal commitment. The final purpose of this meta-analysis is to examine antecedents of goal commitment. Hollenbeck and Klein (1987), consistent with Locke et al. (1981), used an expectancy theory framework in delineating the determinants of goal commitment. The attractiveness of goal attainment and the expectancy of goal attainment are thus thought to be the most proximal antecedents of goal commitment. Across the accumulated literature, those two variables along with motivational force, the multiplicative combination of expectancy and attractive-
ness, should be strongly related to goal commitment. Although previous meta-analyses (e.g., Klein, 1991; Wofford, Goodwin, & Premack, 1992) have provided support for these relationships, in the current study we used a substantially larger sample of studies than earlier efforts.

Hypothesis 4: There will be positive relationships between goal commitment and expectancy, attractiveness, and motivational force averaged across studies.

Although expectancy and attractiveness were the most proximal antecedents of goal commitment in Hollenbeck and Klein’s (1987) model, several other variables were identified as likely to affect goal commitment through their effects on the expectancy and attractiveness of goal attainment. Empirical evidence exists for some of these relationships but not for others. Furthermore, the variables included in Hollenbeck and Klein’s model were provided to be illustrative rather than a comprehensive or exhaustive set of antecedents. Although the additional antecedents of goal commitment suggested in that model and other past reviews should also relate to goal commitment, we offer no formal hypotheses with respect to all of these variables. We summarize the findings in the literature for all other correlates of goal commitment, whether explicitly identified in a previous review or not.

Method

Literature Search

Although there has been a recent surge in research on goal commitment, we did not limit this meta-analysis to those latest findings. Studies included in prior reviews were also incorporated here to provide a comprehensive analysis. We conducted a search for studies reporting empirical findings involving goal commitment. Both computer and manual methods were used in identifying relevant studies to obtain the largest sample possible. First, computerized searches were conducted through both the PsycLIT and ABI/Inform databases using the key words goal commitment, goal acceptance, and goal difficulty. Second, previous reviews of the goal commitment literature (Hollenbeck & Klein, 1987; Locke & Latham, 1990; Locke et al., 1988; Wofford et al., 1992) were examined. Next, we manually searched the Academy of Management Journal, Human Performance, Journal of Applied Psychology, Journal of Applied Social Psychology, Journal of Management, Organizational Behavior and Human Decision Processes, and Personnel Psychology from January 1987 through May 1998. We chose these journals because they were most likely to contain goal-setting studies given the distribution of articles identified through the previous steps. Studies published before 1987 should have been included in the previous reviews of goal commitment. Finally, the reference lists of studies identified using these procedures were examined for any additional studies.

This search of the literature identified 174 published articles, dissertations, book chapters, and conference papers. From these, the following criteria for inclusion were used for the current meta-analyses: (a) Goal commitment or goal acceptance had to be measured in the study and (b) suitable statistics had to be present to calculate an effect size between goal commitment and at least one other construct. The application of these inclusion criteria resulted in the identification of 74 studies. Nine of these studies included more than one sample or study, bringing the total to 83 independent samples. Sample sizes ranged from 20 to 406 ($M = 105.06, SD = 72.11$). The studies included in the meta-analyses are indicated by an asterisk in the reference list. Note that more than half ($n = 48$) of these studies were published after the reviews by Hollenbeck and Klein (1987) and Locke et al. (1988).

Coding of Studies and Constructs

Each study was coded for sample size, effects between the constructs of interest, and measurement reliability. Two of the authors each coded half of the studies, with 10 studies coded by both authors. The agreement between the raters was 95% on those studies. All disagreements were resolved through discussion with the first author. In addition, information was collected on each study regarding several potential moderators: (a) task complexity (using the categories provided by Wood, Mento, & Locke, 1987); (b) incentives (yes vs. no); and (c) goal origin (self-set vs. participative vs. assigned). These variables were identified as potential moderators based on previous goal-setting meta-analyses (Mento et al., 1987; Wofford et al., 1992; Wood et al., 1987). Given the small number of studies identified using participatively set goals, we focused the goal origin analyses only on self-set versus assigned goals.

Goal difficulty was also coded as a moderator to test Hypothesis 3. In doing so, studies (or conditions within studies) were categorized as using easy, moderate, or difficult goals. That categorization was based on the objective probability of goal attainment when possible. Goals reported or judged as having an objective probability of attainment of less than 15% were coded as difficult; goals between 16% and 50% were coded as moderate; and goals reported or judged as having an objective probability of attainment greater than 50% were coded as easy. The coding of the other constructs examined was relatively straightforward. In several cases, similar constructs were combined in the interest of parsimony. We further explain these variables.

Goal commitment. Although conceptual distinctions can be made between the constructs of goal acceptance and goal commitment, studies that examined one or the other are included here under the term goal commitment. This is consistent with previous reviews (e.g., Hollenbeck & Klein, 1987; Locke & Latham, 1990) and the emerging consensus that commitment is the more inclusive construct. All self-report measures of goal commitment were included in this analysis, even those using single-item measures. Excluded were studies using only discrepancy measures of goal commitment (see Wright, O’Leary-Kelly, Cortina, Klein, & Hol—

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1 In experimental studies assigning goals of varying difficulty levels, a “difficult” goal has often been defined as having an objective probability of attainment of 10%. For the purposes of this review, using a cutoff of 10% in categorizing goal difficulty was viewed as overly restrictive. Our use of 15% in this review should not be viewed as a recommended operationalization of difficult goals in future experimental manipulations.
lennbeck, 1994) or studies in which participants evaluated the commitment of others.

Performance. For the majority of studies, objective performance indexes were available to use as the measure of task performance. When both objective and subjective measures were available, we used the objective measure. In instances in which multiple dimensions of performance were evaluated, we chose the measure closest to the goal of interest as the performance measure (in most cases, this was the quantity of work).

Expectancy. Studies examining a variety of expectancy constructs (e.g., outcome expectancies, effort–performance expectancies) were included in this category as were self-efficacy expectancies. Although conceptually distinct, nearly identical measures have been used to assess self-efficacy and expectancy in the goal-setting literature (Klein, 1991).

Attractiveness. Direct measures of the attractiveness of goal attainment were grouped with measures of valance or instrumentality.

Goal level. The performance level specified in the goal for which commitment was assessed was used as the measure of goal difficulty level. If, for example, a study assigned goals and assessed commitment to those assigned goals but later also assessed personal goals, the assigned goal level was used in the meta-analysis. In studies in which commitment was assessed relative to personal goals, the difficulty of those self-set goals was used.

Ability. Measures of ability were combined with the commonly used surrogates for ability, namely previous or practice performance. When measures of both ability and past performance were available, we used the ability measure.

Feedback. Two groupings of measures were created concerning feedback or knowledge of results. The first, provision of feedback, included studies comparing feedback with no-feedback conditions as well as those measuring or manipulating the amount of feedback provided. The second set of studies, type of feedback, included studies that measured or manipulated the nature or some other dimension of the feedback received by study participants.

Meta-Analytic Procedures

Meta-analyses were conducted using the procedures outlined by Hunter and Schmidt (1990). Their procedures examined the degree to which correlation differences across studies could be accounted for by statistical artifacts (e.g., sampling error and unreliability) and allowed for the correction of these correlations to obtain the true population correlation. Population correlations were estimated for each of the relationships using the observed correlations weighted for sample size and the calculated variance of correlations across samples. Each sample-weighted correlation was corrected for measurement error in goal commitment. Reliability information was presented for more than 75% of the goal commitment measurements. The average reliability for goal commitment was .81. When unreported, this mean was used for correction purposes. We did not correct for measurement error in goal difficulty, performance, or the coded antecedents because most of these measures were objective in nature, were experimentally manipulated, or the reliabilities were unreported in the literature. The moderating effects discussed in this study were analyzed using the guidelines set by Hunter and Schmidt (1990) and Whitener (1990). We examined the percentage of variance explained by artifacts according to Hunter and Schmidt’s 75% rule and homogeneity significance tests; we also examined the credibility intervals for the degree of spread and the inclusion of zero.

Results and Discussion

Consequences of Goal Commitment

Hypotheses 1–3 concerned the relationship between goal commitment and performance. The meta-analytic results for this relationship are provided in Table 1. The mean corrected effect size ($r_c$) between goal commitment and performance was .23. The 95% confidence interval (CI) for this weighted mean correlation did not include zero, supporting Hypothesis 1, which predicted a positive relationship between goal commitment and performance across studies. Hypothesis 2 predicted a significant amount of variability in this relationship that would not be explained by sampling error or artifacts. As indicated in Table 1, only 27% of the variance in results across studies was attributable to sampling error. The homogeneity chi-square was significant at the .01 level, indicating support for Hypothesis 2 and a high probability that moderators of this relationship were present.

Hypothesis 3 predicted that goal difficulty would moderate this relationship. The results of the moderation anal-

<table>
<thead>
<tr>
<th>Goal difficulty level</th>
<th>$k$</th>
<th>$N$</th>
<th>$r$</th>
<th>Lower 95% CI</th>
<th>Upper 95% CI</th>
<th>% due to sampling error</th>
<th>$\chi^2$</th>
<th>$r_c$</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>17</td>
<td>1,293</td>
<td>.31</td>
<td>.25</td>
<td>.38</td>
<td>52.88</td>
<td>32.15*</td>
<td>.35</td>
</tr>
<tr>
<td>Moderate</td>
<td>22</td>
<td>3,093</td>
<td>.18</td>
<td>.12</td>
<td>.24</td>
<td>29.77</td>
<td>73.90**</td>
<td>.20</td>
</tr>
<tr>
<td>Low</td>
<td>16</td>
<td>1,531</td>
<td>.16</td>
<td>.10</td>
<td>.22</td>
<td>71.94</td>
<td>22.24</td>
<td>.18</td>
</tr>
<tr>
<td>Overall</td>
<td>66</td>
<td>7,952</td>
<td>.20</td>
<td>.16</td>
<td>.25</td>
<td>26.77</td>
<td>246.53**</td>
<td>.23</td>
</tr>
</tbody>
</table>

Note. Significant correlations are those whose confidence intervals do not include zero. $k =$ number of correlations; $N =$ total number of individuals across the $k$ samples; $r =$ mean sample weighted correlation; 95% CI = 95% confidence interval of the weighted mean correlation; % due to sampling error = percentage of variance explained by sampling error alone; $\chi^2 =$ homogeneity of effect sizes within each class; $r_c =$ mean weighted correlation corrected for goal commitment unreliability.

* $p < .05$. ** $p < .01$. 

Table 1

Meta-Analysis Results of the Goal Commitment–Task Performance Relationship
analysis, also presented in Table 1, reflect the predicted pattern illustrated in Figure 1. The relationship between commitment and performance was stronger for difficult goals relative to easy goals, supporting Hypothesis 3. The corrected average correlation for difficult goals \((r_c = .35)\) was significantly higher \((p < .05)\) than the average correlation for moderate \((r_c = .20)\) or low \((r_c = .18)\) goals, as evidenced by the fact that the 95% CI for difficult goals did not overlap with the CIs for moderate or low goals. Further support for the moderating effect was evident in the increased variance accounted for by sampling error for the subsets relative to the overall effect. The homogeneity chi-square was nonsignificant for the low goal-difficulty category but significant for the high and moderate subsets, suggesting the presence of additional moderators.

Other potential moderators (e.g., goal origin, task complexity, incentives) of the goal commitment–performance relationship were examined but not supported. Secondary moderators within levels of goal difficulty were not examined because of the diminished number of studies in each subset. Although all of the sampling variance was not accounted for, strong support was found for Hypotheses 1–3. There was a strong cross-situational positive relationship between goal commitment and performance. In addition, moderator analyses showed that the effect of goal commitment on performance was considerably stronger in situations in which difficult goals were used. Given the previously established robust relationship between goal difficulty and task performance (Locke & Latham, 1990; Mento et al., 1987), these findings highlight the importance of facilitating commitment to difficult goals.

Antecedents of Goal Commitment

Hypothesis 4 predicted positive relationships between goal commitment and expectancy, attractiveness, and motivational force. The meta-analytic results for these relationships are provided in Table 2. All three weighted mean correlations had CIs that placed them significantly different from zero, supporting the hypothesis. For expectancy, the mean effect size, corrected for measurement error \((r_c)\), was .36. The weighted mean effects were .29 for attractiveness and .33 for motivational force. For all three relationships, substantial variance in results across studies remained after accounting for sampling error and the homogeneity chi-squares were significant at the .01 level. Although not a focus of the current study, different operationalizations of these variables (e.g., summated vs. single value expectancies) have been shown to moderate these relationships (Klein, 1991). Although there may be additional moderators, Hypothesis 4 was supported in that there were strong positive overall relationships between goal commitment and attractiveness of goal attainment, expectancy of goal attainment, and motivational force.

We did not formulate any specific hypotheses about the numerous distal antecedents of goal commitment. The meta-analytic results for these other correlates of commitment are provided in Table 3, organized by the amount of evidence available for each antecedent. There are relatively few additional variables that have been extensively studied. Of these, significant positive relationships were found for ability \((r_c = .18)\), volition \((r_c = .40)\), affect \((r_c = .22)\), goal specificity \((r_c = .19)\), task experience \((r_c = .24)\), and both the provision \((r_c = .13)\) and type \((r_c = .30)\) of feedback. Higher levels of commitment resulted from having high ability, a voice in the determination of the goal, task or job satisfaction, specific goals, task experience, receiving feedback on one’s performance, and the form of that feedback. Except for the provision of feedback, substantial variance across studies remained after accounting for sampling error, and the homogeneity chi-squares were significant. A significant relationship could not be inferred for age, which was not surprising because there is no conceptual basis for such a relationship.

Goal difficulty was the most frequently examined correlate of goal commitment. Conceptually, the literature has focused on the interaction between goal difficulty and commitment in determining performance rather than on the relationship between goal difficulty level and goal commit-

| Table 2 |
|---|---|---|---|---|---|---|
| Variable | \(k\) | \(N\) | \(r\) | Lower 95% CI | Upper 95% CI | % due to sampling error | \(\chi^2\) | \(r_c\) |
| Expectancy | 24 | 2,995 | .32 | .26 | .39 | 24.90 | 95.89** | .36 |
| Attractiveness | 13 | 2,075 | .26 | .18 | .34 | 19.41 | 54.34** | .29 |
| Motivational force | 4 | 593 | .30 | .06 | .54 | 9.16 | 43.71** | .33 |

*Note.* Significant correlations are those whose confidence intervals do not include zero. \(k\) = number of correlations; \(N\) = total number of individuals across the \(k\) samples; \(r\) = mean sample weighted correlation. 95% CI = 95% confidence interval of the weighted mean correlation; % due to sampling error = percentage of variance explained by sampling error alone; \(\chi^2\) = homogeneity of effect sizes within each class; \(r_c\) = mean weighted correlation corrected for goal commitment unreliability.

** \(p < .01\).
Table 3
Meta-Analysis Results for the Distal Antecedents of Goal Commitment

<table>
<thead>
<tr>
<th>Variable</th>
<th>k</th>
<th>N</th>
<th>r</th>
<th>Lower 95% CI</th>
<th>Upper 95% CI</th>
<th>% due to sampling error</th>
<th>χ²</th>
<th>rₑ</th>
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<tr>
<td>Goal level</td>
<td>40</td>
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<td>-.05</td>
<td>.11</td>
<td>12.70</td>
<td>314.91***</td>
<td>.04</td>
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<td>Ability/past performance</td>
<td>19</td>
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<td>.16</td>
<td>.08</td>
<td>.24</td>
<td>22.85</td>
<td>83.12**</td>
<td>.18</td>
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<tr>
<td>Volition (participation)</td>
<td>17</td>
<td>2,007</td>
<td>.37</td>
<td>.28</td>
<td>.46</td>
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<td>.40</td>
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<td>Affect</td>
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<td>750</td>
<td>.20</td>
<td>.11</td>
<td>.29</td>
<td>53.42</td>
<td>13.12*</td>
<td>.22</td>
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<tr>
<td>Explicitness (goal specificity)</td>
<td>7</td>
<td>968</td>
<td>.17</td>
<td>.04</td>
<td>.31</td>
<td>21.12</td>
<td>33.03***</td>
<td>.19</td>
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<tr>
<td>Task information/experience</td>
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<td>.22</td>
<td>.06</td>
<td>.38</td>
<td>25.84</td>
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<td>.24</td>
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<td>Provision of feedback</td>
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<td>Type of feedback</td>
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<td>.27</td>
<td>.12</td>
<td>.42</td>
<td>36.82</td>
<td>13.61**</td>
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<td>Age</td>
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<td>-.02</td>
<td>.18</td>
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<td>.09</td>
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<td>Task complexity</td>
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<td>-.35</td>
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<td>Strategy development</td>
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<td>Incentives</td>
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<td>Need for achievement</td>
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<td>.01</td>
<td>.34</td>
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<td>Leadership</td>
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<td>.00</td>
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<td>.04</td>
<td>-.07</td>
<td>.14</td>
<td>100.00</td>
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<td>Social influence</td>
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<td>.45</td>
<td>.32</td>
<td>.58</td>
<td>70.14</td>
<td>2.85</td>
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<td>Supervisor supportiveness</td>
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<td>93</td>
<td>.38</td>
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<td>.29</td>
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Note. Significant correlations are those whose confidence intervals do not include zero. Variables in italics are those identified in previous reviews by Hollenbeck and Klein (1987) and Locke, Latham, and Erez (1988). k = number of correlations; N = total number of individuals across the k samples; r = mean sample weighted correlation. 95% CI = 95% confidence interval of the weighted mean correlation; % due to sampling error = percentage of variance explained by sampling error alone; χ² = homogeneity of effect sizes within each class; rₑ = mean weighted correlation corrected for goal commitment unreliability.

* p < .05. ** p < .01.

In fact, neither Hollenbeck and Klein (1987) nor Locke et al. (1988) included goal difficulty in their discussions of the antecedents of goal commitment. At a simple level, one might expect goal commitment to decline as goals become objectively more difficult. This relationship is more complex than that, however, and the corrected average correlation reported in Table 3 is close to zero (rₑ = .03). The low correlation and the wide variance observed across studies indicates a strong possibility for moderators. Goal origin was examined as a potential moderator based on the findings by Wofford et al. (1992), who examined personal and assigned goals separately. In the current analysis, the average weighted effect (rₑ) was -.09 for assigned goals (95% CI = -.19 to .03; 12.06% of variance due to sample error), χ²(18, N = 2,424) = 157.61, p < .01. For self-set goals, there was an overall positive relationship (rₑ = .16) that was significantly different from zero based on the CI (.06 to .25; 25.16% of variance due to sample error). χ²(14, N = 1,630) = 59.63, p < .01. For both subsets, the significant homogeneity statistics indicated that goal origin alone did not explain the variability in sample effects.

Consideration of the more proximal antecedents of commitment may help explain the relationship between goal difficulty level and goal commitment and the moderating role of goal origin. Although the objective probability of attainment becomes lower as goals become more difficult, this is not necessarily reflected in individual expectations of goal attainment (i.e., self-efficacy can remain high). In addition, although objectively difficult goals may have lower probabilities of attainment, they also often have higher instrumentalities (Matsui et al., 1981; Mento, Locke, & Klein, 1992). Perhaps there tends to be high commitment to difficult personal goals because those self-chosen goals tend to have high instrumentalities and expectancies higher.
than warranted by their objective difficulty. For assigned goals, there is likely to be much more variability in both the expectancy and attractiveness of goal attainment because of other individual and situational factors. Future researchers need to directly examine this suggested role of goal origin, expectancies, and attractiveness in understanding the goal difficulty–goal commitment relationship.

Other antecedents, although not studied extensively, have at least been replicated, allowing for the calculation of an average correlation. Because these effects were based on a small number of independent samples, these results must be evaluated with caution. Several other variables have been examined only once. The effects for these variables should not be interpreted as estimates of population correlations. They are included in Table 3 only to provide a comprehensive summary of the variables that have been examined as potential antecedents of goal commitment and to identify relationships in need of replication. Also listed in Table 3 are authority, competition, and job involvement. These variables were identified in previous reviews as potential antecedents of goal commitment but have not been examined empirically.

Study Limitations

By their very nature, meta-analyses call for many subjective decisions (Wanous, Sullivan, & Malinak, 1989). For example, decisions were made regarding study inclusion, significance thresholds, and classification rules. These decisions were made as objectively as possible, but the potential for bias needs to be recognized. A second limitation is the heterogeneity in many overall effect sizes, suggesting that the simple weighted mean correlations do not adequately describe all sampling variance. Although we conducted a few moderator analyses, some of which helped to reduce this heterogeneity, the requirements for complete homogeneity were often not achieved. For some antecedent variables, this heterogeneity is likely attributable to the variety of constructs or operationalizations that were combined into a single category (e.g., feedback type).

Another limitation was the inability to conduct a hierarchical breakdown of moderators because of the limited number of studies in each subset. Problems with statistical power and meta-analysis have been discussed elsewhere (Hunter & Schmidt, 1990; Sackett, Harris, & Orr, 1986). It would also have been useful to conduct a meta-analytic path analysis (e.g., Hom, Caranikas-Walker, Prussia, & Griffith, 1992). Unfortunately, we could not find sufficient data in the literature to generate a complete meta-analytic correlation matrix among the variables of interest. Another limitation is the lack of consistency with which the goal commitment construct has been operationalized, which makes it difficult to argue that all included studies were measuring the exact same thing (see Tubbs & Dahl, 1991, and Wright et al., 1994). Although we limited the operationalizations, we included a variety of measures. Finally, as mentioned earlier, the data available in the literature and the fact that variation in goal commitment is often limited, as is the variation in goal level, made it inappropriate to use meta-analysis to directly examine goal commitment as a moderator in the goal difficulty–performance relationship.

Future Research Needs

Hollenbeck and Klein (1987) noted that goal commitment was not measured or mentioned in the majority of goal-setting studies they reviewed. They and Locke and Latham (1990) recommended that goal commitment be measured in all goal-setting studies, even if goal commitment is not a variable of interest. By doing so, goal commitment serves as a manipulation check and can be used to test the most likely explanation if hypothesized goal effects are not observed. It appears that recent researchers have largely followed this advice, although we did not attempt to identify goal-setting studies not assessing goal commitment. This is evidenced by the large number of studies identified in our literature search and not included in this meta-analysis because the only statistics reported concerning goal commitment were to convey that all participants were committed to the goals being investigated.

A disadvantage of this practice is that goal commitment is often a secondary variable. That is, commitment is measured without specific hypotheses aimed at exploring its nature and role, and statistical relationships are not reported between goal commitment and the other variables being studied. Furthermore, when goal commitment is used as a manipulation check, steps are often taken to ensure high and invariant levels of commitment instead of taking steps to maximize variability in order to observe relationships with goal commitment. As a result, although goal commitment has been included in a greater percentage of goal-setting studies, what researchers have learned about goal commitment is not fully reflected by that attention. This lack of attention to goal commitment as a primary variable of interest is best exemplified by the relatively few studies that have specifically and appropriately examined the interactive effect of goal commitment and goal difficulty on performance. Thus, a first need is for additional research to verify directly what this meta-analysis has shown indirectly: that with sufficient variance in both goal commitment and goal difficulty levels, goal commitment moderates the relationship between goal difficulty and task performance.

The current meta-analysis, consistent with Hollenbeck and Klein’s (1987) model, showed that the expectancy and attractiveness of goal attainment were highly related to goal commitment. Although several other variables were also found to relate to goal commitment, in this meta-analysis we could not test the mediating role of expectancy and attrac-
tiveness implicit in Hollenbeck and Klein’s model. In addition, relatively few researchers have directly examined that relationship (e.g., Klein & Wright, 1994; Wright & Kacmar, 1995). Further examination of this linkage is a second area for future research. A third area for future research concerns the examination of previously identified antecedents that have been infrequently examined (e.g., goal conflict, performance constraints) or not examined at all (e.g., authority, competition). In addition, there may be other variables (e.g., conscientiousness, goal orientation) that, although not previously identified, are worthy of investigation as antecedents of goal commitment.

A strength of the recent goal commitment literature is the definition and measurement of the construct. In particular, the use of a variety of single-item measures has given way to the use of multi-item, standardized, reliable instruments. Hollenbeck, Williams, and Klein’s (1989) scale and its derivatives are the most commonly used measures of goal commitment. There has also been greater convergence between the use of the terms goal acceptance and goal commitment. Whereas previously the two terms were the source of much confusion and were used interchangeably, goal commitment has emerged as the more inclusive of the two constructs and has received the bulk of attention in recent years. Despite this convergence on the meaning and measurement of goal commitment, there is still some debate over both of these issues (DeShon & Landis, 1997; Tubbs, 1993). Empirical studies clarifying these remaining points of contention represent another future research need.

Much of the goal commitment literature has assumed that high commitment is desirable. The escalation of commitment literature (e.g., Staw, 1982) clearly suggests, however, that there are situations in which high commitment is dysfunctional. It is also conceivable that there are situations in which excessively high commitment is detrimental to individual well-being because of the stress, anxiety, or other health risks caused by relentless goal striving (e.g., workaholism). Research examining potential negative implications of goal commitment is thus warranted. A final important area for future research is the examination of commitment to multiple goals. An individual’s commitment to a particular goal is most meaningful relative to that same person’s commitment to other goals. One may be highly committed to a work-related goal, but if that person is even more committed to a conflicting family-related goal, high commitment to the work goal will not be predictive of performance. Few researchers have examined commitment to multiple goals (e.g., Crown & Rosse, 1995; Locke, Smith, Erez, Chah, & Schaffer, 1994).

**Conclusion**

On the basis of a small sample of studies, Donovan and Radosevich (1998) concluded that the evidence in the literature did not support the importance or hypothesized role of goal commitment in the goal-setting process. Results of the current study, using a larger and more representative sample of studies, refutes those assertions. The main findings of this review are as follows: (a) Goal commitment had a strong positive effect on performance across studies; (b) goal difficulty moderated this relationship (and hence goal commitment moderated the goal difficulty–performance relationship); (c) expectancy and attractiveness of goal attainment, the antecedents thought to be most proximal, were strongly and positively related to goal commitment; and (d) only a handful of relationships were shown to have been well documented in the literature between goal commitment and more distal antecedents (e.g., ability, volition).

Goals are central to current treatments of work motivation, and goal commitment is a necessary condition for difficult goals to result in higher task performance. A decade ago, the call was made for more systematic research investigating this crucial construct. The number of recent studies identified in this meta-analysis suggests that goal commitment has received increased attention. However, the limited number of studies directly and appropriately examining the interaction between goal commitment and performance, the conceptual confusion that remains about this relationship, and the sparse attention given to several previously identified antecedent variables suggest that this research has not been sufficiently systematic. We hope that this conceptual clarification and empirical synthesis will facilitate more systematic research in the next decade.

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Facilitating group productivity through the integration of individual and group goals. *Organizational Behavior and Human Decision Processes*, 64, 138–150.


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