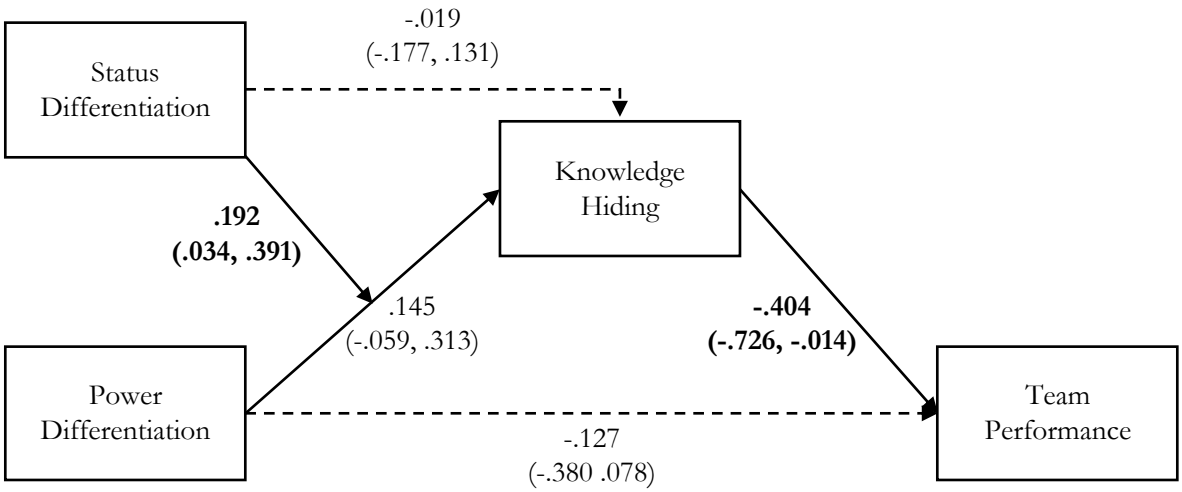
Supplemental Materials

Study 1 Supplemental Analysis and Results

Detailed Results of Path Model

Figure S1



Control variable path coefficients	Knowledge Hiding	Team Performance
Gender composition (% female)	.187	.127
	(-.269, .670)	(-.652, .416)
Team mean power	-.010	-.106
	(-.129, .136)	(-.301, .090)
Team mean status	.192	-.268
	(-.140, .556)	(-.727, .113)
SD Knowledge hiding	.444	
	(-.087, .825)	
Constant	.503	**9.073**
	(-2.096, 2.733)	**(6.471, 11.827)**

Note: Significant path coefficients in bold. 95-percent bias-corrected confidence intervals reported in parentheses. Paths with dashed lines are included in SEM path model but not related to hypotheses (model is equivalent to PROCESS Model 7; Hayes, A.F. 2022. Introduction to mediation, moderation, and conditional process analysis, 3rd ed. Guilford Press, New York).

Examining Differences in Knowledge Hiding by Level of Power and Status

We conducted additional analysis to confirm that knowledge hiding did not differ as a function of team members' level of power or status within the team. We tested whether the effects of the focal interaction of power differentiation and status differentiation on knowledge hiding were similar for people across levels of power and status within the team, rather than being driven only (or primarily) by low-, medium-, or high-power or status team members. Although our theorizing suggests that the *reasons* for knowledge hiding may differ somewhat by level of power or status within the hierarchy, we did not expect that the *magnitude* of knowledge hiding would differ by individuals' power or status.

To test for differences in knowledge hiding by individuals' level of power, we conducted a multi-level analysis of the three-way interaction of power differentiation (team level) × status differentiation (team level) × power (individual level), with individuals nested in teams. If individuals' level of power affected knowledge hiding, we would expect to find a main effect of power, two-way interactions between individuals' power and team-level power differentiation or team-level status differentiation, or a three-way interaction. This analysis revealed no significant main effect of power level ($B = .00$, $p = .998$), or any two-way (power differentiation × power level: $B = -.18$, $p = .578$; status differentiation × power level: $B = 1.22$, $p = .341$) or three-way interactions ($B = 10.15$, $p = .407$) involving power level.

In addition, we tested effects of individuals' level of status in the same way as power. Similarly, there were no main effects of individuals' status level ($B = .00$, $p = .998$), nor were there two-way (power differentiation × status level: $B = .01$, $p = .986$; status differentiation × status level: $B = -1.68$, $p = .225$) or three-way interactions with status level ($B = -12.22$, $p = .383$). Together, this confirms that the effects of power differentiation and status differentiation on knowledge hiding did not vary by team members' level of either power or status.

Examining Effects of Power-Status Alignment

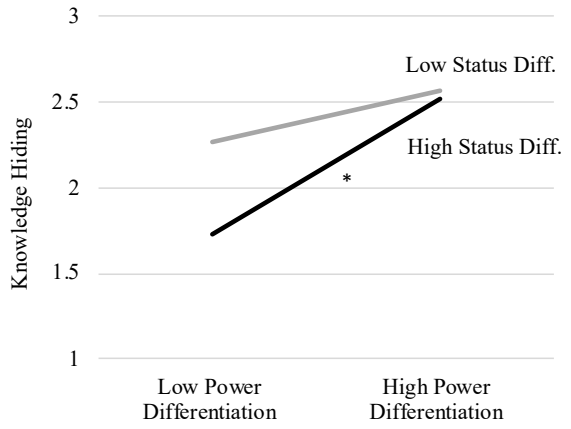
We examined alignment of power and status in Study 1 to see if this further moderated the interaction of power differentiation and status differentiation on knowledge hiding. Across all teams, the average power-status alignment was $r = .07$ ($SD = .40$). We posit that imperfect alignment in some teams may have attenuated the benefits of high power differentiation combined with low status differentiation. Thus, we tested the three-way interaction between alignment, power differentiation, and status differentiation on knowledge hiding.

Although the three-way interaction between alignment, power differentiation, and status differentiation is not significant ($B = 64.74$, $p = .589$), likely due to the sample size ($N = 50$), the figure below hints that a three-way interaction pattern may be present. Among teams with relatively high power-status alignment (+1 SD), we observe a significant interaction of power differentiation and status differentiation on knowledge hiding ($B = 104.30$, $p = .043$). In particular, when status differentiation is high, the relationship between power differentiation and knowledge hiding is significantly positive ($B = 3.10$, $p = .033$), whereas when status differentiation is low, this relationship, although not significant, demonstrates a negative trend ($B = -2.13$, $p = .302$). Among teams with relatively low power-status alignment (-1 SD), the interaction of power differentiation and status differentiation on knowledge hiding is not significant ($B = 52.54$, $p = .425$). In low alignment teams (-1 SD), when status differentiation is high, the relationship between power differentiation and knowledge hiding is again significantly positive ($B = 4.20$, $p = .049$), and when status differentiation is low, this relationship demonstrates a positive, but nonsignificant, trend ($B = 1.56$, $p = .53$).

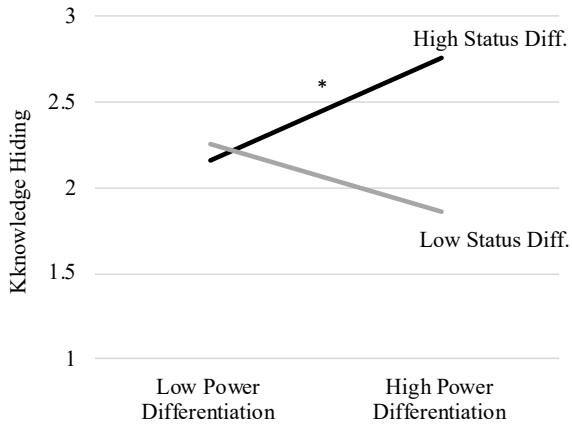
Figure S2 presents the interaction between power differentiation and status differentiation at low alignment (Figure S2a) and at high alignment (Figure S2b).

Figure S2

(a) Interaction of Power Differentiation and Status Differentiation on Knowledge Hiding at Low Power-Status Alignment (-1 SD)
$B = 52.54$, $p = .425$



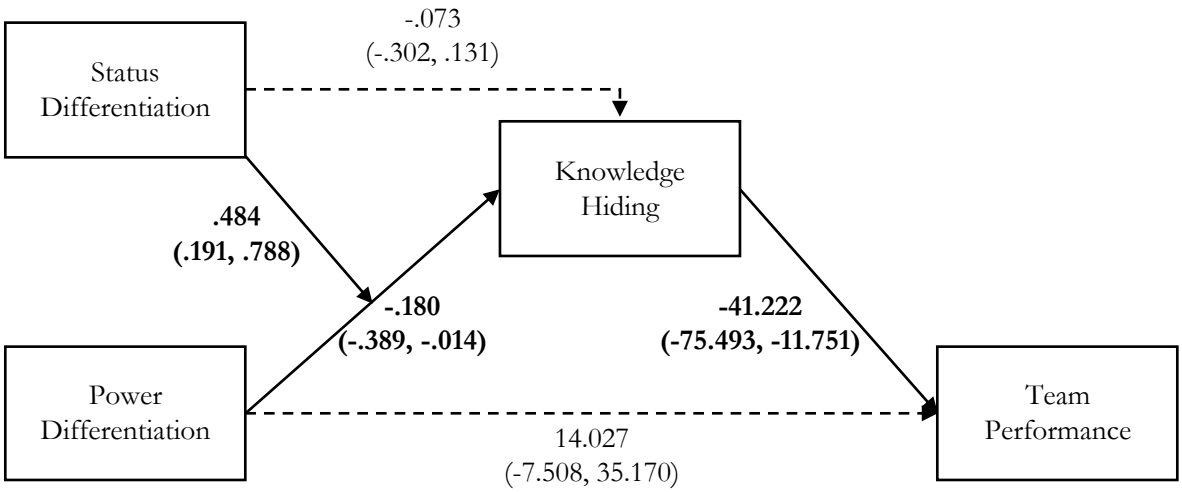
(b) Interaction of Power Differentiation and Status Differentiation on Knowledge Hiding at High Power-Status Alignment (+1 SD)
$B = 104.30$, $p = .043$



Study 2 Supplemental Analysis and Results

Detailed Results of Path Model

Figure S3



Control variable path coefficients	Knowledge Hiding	Team Performance
Gender composition (% female)	-.304	**-61.667**
	(-.693, .035)	**(-120.556, -7.092)**
% native English speakers	**-.780**	-10,732
	(-1.10, -.410)	(-77.586, 49.394)
SD Knowledge hiding	**.308**	
	(.109, .515)	
Constant	**2.754**	**158.139**
	(2.347, 3.271)	**(62.494, 257.816)**

Note: Significant path coefficients in bold. 95-percent bias-corrected confidence intervals reported in parentheses. Paths with dashed lines are included in SEM path model but not related to hypotheses (the model is equivalent to PROCESS Model 7; Hayes, A.F. 2022. Introduction to mediation, moderation, and conditional process analysis, 3rd ed. Guilford Press, New York).

Additional Analysis of Manipulation Checks

In light of the unanticipated main effect of power differentiation on our status differentiation manipulation check, we conducted additional analysis of the status differentiation scores for each condition to better understand the nature of this unexpected effect. Post hoc contrasts following the 2 (power differentiation) × 2 (status differentiation) ANOVA on status differentiation scores reported in the paper revealed that, within the low status differentiation conditions, the status differentiation score in the low power differentiation condition does not differ significantly from the score in the high power differentiation condition, F (1, 59) = 1.51, p = .225 (see Table S1 for means and standard deviations). This indicates that adding power differentiation did not, on its own, significantly heighten perceptions of status differentiation. However, within the high status differentiation conditions, the status differentiation score in the low power differentiation condition is marginally lower than the score in the high power differentiation condition, F (1, 59) = 3.76, p = .057. This suggests that high power differentiation and high status differentiation have amplifying effects, such that the presence of high levels of both forms of differentiation heighten perceptions of status differentiation, beyond the presence of high status differentiation on its own.

Table S1

Status differentiation scores		**Power differentiation condition**		
		Low	**High**	**Marginal means**
Status differentiation condition	**Low**	M = .08 SD = .05	M = .12 SD = .06	M = .10 SD = .06
	High	M = .14 SD = .08	M = .19 SD = .11	M = .17 SD = .10
	Marginal means	M = .11 SD = .07	M = .15 SD = .10	

Although there is not a main effect of status differentiation on perceptions of power differentiation, we found similar amplifying effects of power differentiation and status differentiation on perceptions of power differentiation. Similar to the analysis of the status differentiation scores, post hoc contrasts following the 2 (power differentiation) × 2 (status differentiation) ANOVA reported in the paper revealed that, within the low power differentiation conditions, the power differentiation score in the low status differentiation

condition does not differ significantly from the score in the high status differentiation condition, F (1, 59) = .00, p = .982 (see Table S2 for means and standard deviations). Mirroring the results of the above analysis of the status differentiation scores, this indicates that adding status differentiation does not, on its own, increase perceptions of power differentiation. However, within the high power differentiation conditions, the power differentiation score in the low status differentiation condition is marginally lower than the score in the high status differentiation condition, F (1, 59) = 3.06, p = .085. This is consistent with the amplifying effects noted above, such that the presence of high levels of both power differentiation and status differentiation heighten perceptions of power differentiation beyond the presence of high power differentiation on its own.

Table S2

Power differentiation scores		**Power differentiation condition**		
		Low	**High**	**Marginal means**
Status differentiation condition	**Low**	M = .12 SD = .06	M = .19 SD = .08	M = .15 SD = .08
	High	M = .12 SD = .07	M = .25 SD = .13	M = .18 SD = .12
	Marginal means	M = .12 SD = .06	M = .22 SD = .13	

More generally, these findings reflect the fact that teams with power differentiation may drift toward having status differentiation, perhaps because teams tend to be more or less hierarchical in general (Hollenbeck et al., 2012).

Examining Differences in Knowledge Hiding by Level of Power and Status

Mirroring the supplemental analysis in Study 1, we tested whether the effects of our power differentiation and status differentiation manipulations on knowledge hiding were similar for people across levels of the hierarchy, rather than being driven only by low-rank, medium-rank, or high-rank team members. Again, although our theorizing suggests that *reasons* for knowledge hiding may differ somewhat by rank, we did not expect differences in *magnitude* of the behavior itself as a function of rank.

We assigned individuals' rank value based on the power, status, or both, of their assigned role in the group. In the power differentiation conditions, the Mission Commander had a rank value of 3, Directors had a rank value of 2, and Analysts had a rank value of 1. In the power equality conditions, the Liaison Officer had a rank value of 3, Intelligence Officers had a rank value of 2, and Operations Officers had a rank value of 1, consistent with the relative status of these roles.[1] If rank affected knowledge hiding, either across conditions or in specific conditions, we would expect to find a main effect of rank, or interactions between rank and power differentiation, rank and status differentiation, or a three-way interaction.

To test for differences in knowledge hiding by rank, we conducted a 2 (power differentiation: high vs. low) × 2 (status differentiation: high vs. low) × 3 (rank: high, medium, low) multi-level, mixed-effects regression analysis at the individual level, with individuals nested in teams. This analysis revealed no significant main effect of rank ($\chi^2(2) = 3.82$, $p = .148$), or any two-way (power differentiation × rank: $\chi^2(2) = 2.54$, $p = .281$; status differentiation × rank: $\chi^2(2) = 3.11$, $p = .211$) or three-way interactions ($\chi^2(2) = 1.60$, $p = .450$) involving rank. This confirms that the effect of our power differentiation and status differentiation manipulations on knowledge hiding did not vary across team members based on their rank.

[1] Roles were not ranked in the low power differentiation-low status differentiation condition (i.e., all roles had equal power and equal status). However, role titles were the same in this condition as in the low power differentiation-high status differentiation condition. The only difference between these conditions was the presence (or absence) of status differentiation. Therefore, we assigned the same rank values to each role in both conditions.

Complete Scales Used in Studies

Team Performance measure (in Study 1)

Team leaders rated teams on the following dimensions:

1. Adherence to schedules
2. Adherence to budgets
3. Work quality
4. Meeting project goals
5. Meeting design objectives
6. Team operations
7. Work excellence
8. Overall effectiveness
9. Overall efficiency

Knowledge Hiding measure (in Studies 2 and 3)

Participants rated their agreement with the following statements about their own behavior in the team:

1. I agreed to help other team members but never really intended to.
2. I agreed to help other team members but instead gave them information different from what they wanted.
3. I told other team members that I would help them out later but stalled as much as possible.
4. I offered other team members some other information instead of what they really wanted.

Competitive Climate (in Study 3)

Participants rated their agreement with the following statements about their team's climate:

1. My co-workers structure things in ways that favor their own goals rather than the goals of other colleagues.
2. My co-workers have a "win-lose" relationship.
3. My co-workers like to show that they are superior to each other.
4. My co-workers' goals are incompatible with each other.

Cooperative Climate (in Study 3)

Participants rated their agreement with the following statements about their team's climate:

1. My co-workers and I "swim or sink" together.
2. My co-workers and I want each other to succeed.
3. My co-workers and I seek compatible goals.
4. The goals of my co-workers go together.