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RESEARCH ARTICLE

Leaders' achievement goals and their integrative management of creative ideas voiced by subordinates or superiors

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Abstract

The purpose of this research was to examine the joint impact of leader achievement goals and hierarchical position of the voicer of creative ideas (subordinate vs. superior) on the extent to which leaders (intent to) integrate these voiced creative ideas with their own ideas (integrative idea management). In a scenario-based survey (study 1; $N = 189$), in which we measured participants' achievement goals, we found that the relationship between leaders' performance goals and their intention to integrate voiced creative ideas is contingent on the hierarchical position of the idea voicer. Similarly, in an experimental study (study 2; $N = 94$), in which we experimentally induced achievement goals, we found that leaders display lower integrative intentions when ideas are voiced by a subordinate rather than a superior, but this was only true for leaders pursuing performance goals. Furthermore, the results of an additional, exploratory analysis suggest that the hierarchical position of the voicer of creative ideas had an indirect effect on integrative behavior through integrative intentions for performance goal leaders and no effect for mastery goal leaders. Together, these findings advance our understanding of how middle management leaders are influenced by their own achievement goals when managing the creative ideas voiced by subordinates and superiors.

In the dynamic environment of global competition, creativity—the generation of novel and potentially useful ideas about organizational products, practices, or procedures (Shalley, Zhou, & Oldham, 2004)—is crucial for organizations to survive and prosper (Kraatz & Zajac, 2001; Mumford, Scott, Gaddis, & Strange, 2002). Because leaders in middle management position connect vertically related groups (Pugh, Hickson, Hinings, & Turner, 1968), they are important linking pins for integrating creative ideas and suggestions flowing from different hierarchical directions (Floyd & Wooldridge, 1997; Likert, 1961). Indeed, a growing body of research shows that leaders in middle management positions play a significant role within organizations with respect to integrating creative ideas delivered by subordinates and superiors (Balogun & Johnson, 2004; Caughron & Mumford, 2012; Damanpour & Schneider, 2006).

Although scholars have suggested that middle management leaders can connect creative ideas that are voiced from lower and higher hierarchical positions (Floyd & Wooldridge, 1997; Likert, 1961; Pugh et al., 1968), an underexamined issue is that those ideas may challenge the existing framework of thoughts and routines that middle management leaders themselves have established in the work unit they oversee (Detert

& Burris, 2007). As middle managers are the power holders of the status quo in their own managerial domain, a relevant question is to what extent they are willing to integrate creative ideas proposed by meaningful others (subordinates or superiors) with their own ideas. We define integration of ideas as a construct that encompasses the combined use of information and perspectives from multiple sides (cf. Raes, Heijltjes, Glunk, & Roe, 2011). Thus, leaders' integrative management of creative ideas refers to the degree in which creative ideas voiced by others are combined with the leaders' own ideas.

Although middle management leaders are assumed to fulfill a key role in organizational creativity (e.g., Kanter, 1988; West, 2002), we know little about the social psychological mechanism that may influence leaders in their integrative idea management of creative ideas voiced by meaningful others. To fill this void, we draw on insights from the achievement goal literature (Elliot, 2005) to investigate how achievement goals of middle management leaders may affect their management of creative ideas. Specifically, we examine effects of performance goals, which are grounded in an interpersonal standard and are centered on the demonstration of competences, and mastery goals, which are

grounded in an intrapersonal standard and are centered on the acquisition of competences (Van Yperen & Orehek, 2013).

Furthermore, middle management leaders may receive creative ideas for integration from individuals who hold lower (i.e., subordinates) or higher (i.e., superiors) positions in the organizational hierarchy. Although researchers have started to investigate voice that is directed to individuals at different hierarchical positions (Detert, Burris, Harrison, & Martin, 2013), we know little about how leaders respond when they receive creative voice input from individuals at different hierarchical positions in the organization. As formal hierarchical positions in an organization are inherently associated with attached competence levels and role behaviors required for that specific position (Ridgeway & Berger, 1986), we propose that hierarchical position of the voicer of creative ideas (i.e., subordinate vs. superior) will affect middle management leaders' integration of voiced creative ideas.

In the following sections, we first define achievement goals and hierarchical position of the voicer of creative ideas. Next, we will argue why the influence of leaders' achievement goals on their management of voiced ideas is contingent upon the voicer's hierarchical position, which we will subsequently test in a scenario-based survey (study 1) and an experimental study (study 2).

Leaders' Achievement Goals

The achievement goal approach to achievement motivation has emerged as a highly influential framework for understanding how people define, experience, and respond to competence-relevant situations, including the workplace (Elliot, 2005; Van Yperen & Orehek, 2013). Individuals' focus on an interpersonal standard (i.e., others) is referred to as a performance goal, whereas mastery goals are grounded in an intrapersonal standard (i.e., the self). In this paper, we focus exclusively on approach goals, defined as goals directed towards positive or desirable events, because experimental research has demonstrated that these goals are the most efficacious in enhancing performance (Van Yperen, Blaga, & Postmes, 2015). Accordingly, in the present research, performance goals reflect the desire to demonstrate superior competence by outperforming others, whereas mastery goals reflect the desire to develop and gain competence by acquiring new skills and mastering new situations (Elliot & McGregor, 2001; Van Yperen, 2003).

As discussed by Elliot (2005), the achievement goal concept seems to be best suited for the context-specific level. Accordingly, in a specific context, one particular achievement goal, either personally adopted or situationally induced, may be an individual's dominant achievement goal, whereas in another context, an individual may be focused more on another achievement goal (e.g., Van Yperen, Hamstra, & van der Klauw, 2011). Obviously, this does not preclude the possibility that individuals may pursue simultaneously, or

subsequently, other achievement goals that are weaker in intensity or strength relative to their (imposed) dominant achievement goal in a particular context (Van Yperen & Orehek, 2013).

Hierarchical Position of the Voicer of Creative Ideas

Position power (or formal power) stems from one's position in a hierarchy and provides the legitimate authority to control resources and allocate desirable and undesirable outcomes to others (Astley & Sachdeva, 1984; French & Raven, 1959; Pfeffer, 1981). Put differently, hierarchical position is the power base an individual possesses as a result of holding a certain position or role to which a predetermined specific level of power is attached (Ellyson & Dovidio, 1985). Accordingly, when a subordinate voices creative ideas towards a middle management leader, the subordinate has a lower hierarchical position in relation to the leader. In contrast, when a superior voices creative ideas, the superior has a higher hierarchical position in relation to the middle management leader (e.g., Yukl, 1989; Yukl & Falbe, 1991).

A specific hierarchical position within an organization is inherently associated with attached competence levels and role behaviors required for that specific hierarchical position (Ridgeway & Berger, 1986; Yukl, 1989). For example, based on subordinates' lower hierarchical position, leaders may attribute lower levels of competence to subordinates than themselves and may view those subordinates in more critical and devaluing ways (Gruenfeld, Inesi, Magee, & Galinsky, 2008; Overbeck & Park, 2006). In contrast, because of superiors' higher hierarchical position, leaders may attribute higher levels of competence to superiors than themselves (cf. Ridgeway & Berger, 1986) and may weigh their advice and suggestion more heavily (Yaniv & Kleinberger, 2000). Moreover, in addition to attributed competence levels of subordinates and superiors, their different hierarchical positions are also accompanied with differences in control over valuable resources and the ability to administer rewards and punishments (Emerson, 1962; French & Raven, 1959). These different derivations and characteristics related to hierarchical position may, in turn, produce differences in how middle management leaders approach and respond to creative ideas that are voiced by subordinates or superiors.

Interplay of Leaders' Achievement Goals and Voicer's Hierarchical Position

Although potentially beneficial, creative ideas voiced by subordinates or superiors may challenge the status quo of thoughts and routines middle management leaders have established in their managerial domain (Detert & Burris, 2007). This implies that the act of voicing creative ideas may reveal that the idea voicer and the leader have different perspectives on a current state of affairs in the workplace (e.g., Morrison, 2011). Research showed

that individuals pursuing mastery goals tend to regulate such different viewpoints in an epistemic way by focusing on exploring and understanding the underlying issues, whereas individuals pursuing performance goals tend to regulate the dissent by focusing on social hierarchies and the differences between one's own and other's competences (Darnon, Dompnier, Gilliéron, & Butera, 2010; Darnon, Muller, Schragger, Pannuzzo, & Butera, 2006; Poortvliet & Darnon, 2010). Accordingly, we argue that leaders pursuing performance goals tend to manage creative ideas voiced by subordinates or superiors from a hierarchical perspective, whereas leaders pursuing mastery goals are likely to use an epistemic way in their idea management. That is, leaders striving to achieve performance goals may focus on social hierarchies and primarily consider the competences and power of the voicer of the creative idea, whereas leaders striving to achieve mastery goals may focus on the epistemic aspect of the situation, such as the content of the creative idea.

Specifically, given their other-referenced focus and use of an interpersonal standard in defining competence and evaluating performance, leaders pursuing performance goals are sensitive to the levels of competence and power that are inherently associated with the hierarchical position of the voicer of creative ideas (cf. Mast, 2010). Consequently, these leaders tend to perceive the competence level of subordinates as inferior to their own competence level, leading them to value subordinates' creative ideas about work-related matters as inferior to their own ideas. Moreover, subordinates who point out problems and suggest creative ideas for doing things differently may give these leaders the impression that their leadership competencies and authority are challenged and questioned. Indeed, previous research showed that performance goal leaders tend to perceive creative ideas voiced by subordinates as a threat to their competence as a leader (Sijbom, Janssen, & Van Yperen, 2015a). Hence, driven by their desire to demonstrate and ensure their superiority in competence-relevant situations (Butera & Mugny, 2001), these leaders may tend to let their own proven framework of thoughts and routines dominate over any alternative ideas and approaches promoted by subordinates. Accordingly, leaders pursuing performance goals may have low tendencies to attend to and integrate creative ideas voiced by subordinates.

In contrast, performance goals may lead middle management leaders to ascribe higher levels of competence to their superiors and may therefore be more willing to integrate creative ideas delivered by those superiors with their own ideas. That is, given superiors' higher hierarchical position, they are expected to have the competence to come up with creative ideas to improve current ways of doing things. Consequently, seriously considering and integrating creative ideas voiced by a superior seems to be aligned with performance goal leaders' expectations about the superiority of superiors' competence. Moreover, given a superior's ability to reward and punish middle management leaders (Roberto,

2003), rejecting or dismissing superior's creative idea may lead to negative consequences. Thus, performance goals motivate middle management leaders to attend to and integrate creative ideas that are voiced by superiors. Indeed, previous research from the educational domain shows that participants comply in response to conflicting information that was emanated by a more competent other (Quiamzade & Mugny, 2001).

Leaders pursuing mastery goals are focused on developing and gaining competence by acquiring new skills and mastering new situations (e.g., Elliot, 2005; Van Yperen & Orehek, 2013). Hence, leaders pursuing mastery goals may be less focused on social hierarchies and power but consider the situation more in an epistemic way (Darnon *et al.*, 2006). Given their focus on intrapersonal standards and self-development, mastery goal leaders may tend to view creative ideas voiced by subordinates and superiors as valuable sources of new information that can have potential for leadership development (e.g., Anseel, Van Yperen, Janssen, & Duyck, 2011; VandeWalle, 2003). That is, irrespective of the voicer's hierarchical position, input of new and potentially useful ideas, insights, and problem solutions can facilitate mastery goal leaders' growth and development as a leader, thereby increasing the likelihood of exploring and integrating these voiced creative ideas with their own ideas. As mastery goals tend to foster an epistemic regulation of divergent opinions focused on understanding of the underlying issues (Butera & Mugny, 2001; Darnon *et al.*, 2006), such idea exploration and integration seem to be congruent with the mastery goals these leaders personally strive to attain. Research evidence from the feedback domain shows that mastery goals promote the recipients' utilization of feedback information (Barron & Harackiewicz, 2001; VandeWalle, 2003). Furthermore, recent research has shown that mastery goal leaders are likely to explore voiced creative ideas of subordinates (Sijbom, Janssen, & Van Yperen, 2015b) and are interested to learn from those ideas (Sijbom *et al.*, 2015a). Thus, given their focus on epistemic aspects, mastery goals can be expected to motivate leaders to integrate elements of creative ideas voiced by subordinates and superiors with their own ideas.

Overview of Studies and Hypotheses

We conducted two studies to test our notion that leaders' achievement goal and hierarchical position of the voicer of creative ideas (subordinate vs. superior) jointly affect leaders' intention to integrate those creative ideas with their own ideas. Study 1 was a scenario-based survey using a sample of actual leaders. In this study, we measured leader mastery and performance goals and manipulated the position of the idea voicer in a scenario to which participants had to respond. Accordingly, we tested the hypothesis that hierarchical position of the voicer of the creative ideas moderates the relationship between the strength of

leaders' performance goal and their intentions to integrate these ideas, such that this relationship is more negative (or less positive) when ideas are voiced by a subordinate rather than a superior (hypothesis 1). As leaders pursuing mastery goals are less sensitive to the hierarchical position of the idea voicer, we did not expect hierarchical position to moderate the relationship between the strength of leaders' mastery goals and their integrative management intentions.

Study 2 was an experimental study in which we manipulated both leader achievement goal (performance vs. mastery) and hierarchical position of the voicer of creative ideas (subordinate vs. superior). As leader achievement goal was manipulated rather than measured, we reformulated hypothesis 1 into a testable form for study 2. Moreover, because study 1's focus was on leader integrative intentions rather than integrative behavior, we addressed this potential limitation by including leader integrative behavior in study 2. Accordingly, we hypothesized that leader achievement goal and hierarchical position of the voicer of the creative idea interact in their effects on leader integration of ideas such that leaders with a dominant performance goal display lower integrative intentions and less integrative behavior when ideas are voiced by a subordinate rather than a superior (hypothesis 2). We did not expect leaders with dominant mastery goals to differ in their integrative idea management towards creative input from either subordinates or superiors.

Study 1

Method

Sample and procedure. Participants were recruited through Amazon's Mechanical Turk (Buhrmester, Kwang, & Gosling, 2011) to complete an online scenario-based survey in exchange for monetary compensation (\$0.75). The survey lasted for about 10 minutes. To obtain a relevant sample, a system qualification was used such that only individuals from the USA who were in managerial positions could participate. Furthermore, as recommended by Mason and Suri (2012), we included two instructed response items to assure the quality of the data. Two hundred and five participants met our requirements. We left two participants out for further analyses as their responses indicated that they did not take the survey seriously (e.g., consistently choosing the same option of the answer scale). As such, our sample was $N=203$ (77 female, $M_{\text{age}}=36.0$ years, $SD_{\text{age}}=10.2$). The respondents' average work experience was 15.7 years ($SD=9.8$) and their average tenure in current supervisory positions was 4.6 years ($SD=4.3$). The majority (60%) held at least a bachelor's degree. Participants were employed in a diversity of industries, including services, retail, finances, and manufacturing.

We first assessed participants' achievement goals. Participants then read a scenario in which they had to imagine they were the marketing manager of a fast-

food company. In the scenario, we used a between-subjects manipulation of hierarchical position of the voicer of the creative idea (subordinate vs. superior). Participants read the following scenario:

'Imagine that you are the marketing manager of a fast-food company. Your job is to successfully launch new products. Recently, the company developed a new product, so-called fat-free fries. Being the marketing manager, it's your job to develop a successful advertising campaign for this new product.

In the past, you successfully used an Information Strategy to advertise similar products. This specific marketing strategy focuses on giving convincing and penetrating information about the tangible advantages of the product. You decided to use this Information Strategy again to launch the new product of fat-free fries.

After you presented your plans of using an Information Strategy for the advertising campaign to your department, one of your subordinates ("Spencer," he is member of the Marketing Team)/your superior ("Spencer," he is Vice-President Marketing) spoke up and raised concerns with the intended strategy. He proposed a completely new strategy to introduce the product, namely an Emotion Strategy. This strategy focuses on the pleasant experience and feelings elicited by the fat-free fries as consumers eat them. He claimed that using elements of his strategy would lead to resounding success of the new product.'

After the scenario, participants' intentions to integrate Spencer's voiced ideas were assessed. Furthermore, participants answered some control questions and questions about their demographics.

Measures

Manipulation check. The manipulation of hierarchical position of the voicer of the creative idea was checked by asking participants what Spencer's position was in relation to you as a leader. Participants could choose (1) Spencer was my subordinate (subordinate condition) or (2) Spencer was my superior (superior condition).

Furthermore, we assessed whether participants considered the described situation to be realistic using the following questions: "How easy was it for you to imagine that the described situation could actually occur at the workplace?" and "How realistic was the described situation?" Response categories ranged from 1 (*not at all easy/realistic*) to 7 (*very easy/realistic*). Cronbach's alpha was .71.

Achievement goals. Mastery goal ($\alpha=.82$) and performance goal ($\alpha=.90$) were measured using the three-item subscales from Elliot, Murayama, and Pekrun's (2011) achievement goal questionnaire. We adapted the items to fit the work context (i.e., for mastery goal: "My aim is to perform better in my work than I have done in the past"; i.e., for performance goal: "My aim is

to outperform others in my work"). Response categories ranged from 1 (*not true*) to 7 (*extremely true*).

Integrative intentions. Intention to integrate voiced idea ($\alpha = .86$) was measured using four items based on the problem solving subscale of conflict behavior developed by De Dreu, Evers, Beersma, Kluwer, and Nauta (2001). An example item is "I examine issues until I find a solution that really satisfies me and Spencer." The response categories ranged from 1 (*not at all*) to 7 (*very much*).

Control Variables. Control variables were age (in years), gender (0 = *male*, 1 = *female*), education (1 = *high school*, 2 = *some college*, 3 = *2-year college degree*, 4 = *4-year college degree*, 5 = *masters degree*, 6 = *doctoral degree*, 7 = *professional degree* (master of business administration)), type of industry (1 = *primary industry*, 2 = *manufacturing*, 3 = *retail*, 4 = *financial*, 5 = *services*, 6 = *other*), and tenure (in years) in current supervisory position (cf. Baer, 2012). We also controlled for level of creativity of the leader, creative requirement from the job, and openness to experience, as these variables have been shown to affect reactions to voiced creative ideas (cf. Sijbom *et al.*, 2015b). Leader's level of own creativity ($\alpha = .95$) was measured using 13 items from Zhou and George (2001) rated on a scale ranging from 1 (*not at all*) to 7 (*very much*). Openness to experience ($\alpha = .83$) was measured using eight items from Baer and Oldham (2006). Creative requirement from the job ($\alpha = .87$) was measured using five items from Yuan and Woodman (2010). Both the measures use a response format ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Results

Manipulation check. In the subordinate condition, 99% correctly indicated that Spencer was a subordinate. In the superior condition, 87% correctly indicated that Spencer was a superior. The 14 participants who incorrectly indicated the position of Spencer [1/103 in the subordinate condition; 13/100 in the superior condition] were left out for further analysis, leaving $N = 189$. All further analyses will be conducted with this sample.

Furthermore, no differences on perceived realism were found between participants in the subordinate condition ($M = 6.18$, $SD = 0.87$) and the superior condition ($M = 6.29$, $SD = 0.79$), $F(1, 187) = 0.91$, *n.s.* The overall mean for realism ($M = 6.23$, $SD = 0.84$) suggests that the participants perceived the situation as highly realistic.

Discriminant and convergent validity. To provide evidence of conceptual distinctiveness of our scales, we conducted a confirmatory factor analysis on the survey items of the three variables: mastery goal, performance goal, and intention to integrate voiced idea. We computed parameter estimates using AMOS 21.0. We

first tested a model (1) in which the survey items were loaded on the three intended constructs. The overall fit of the model to the data was adequate, $\chi^2(32, N = 189) = 45.81$, $p = .054$, root mean square error of approximation (RMSEA) < 0.05 , adjusted goodness of fit index (AGFI) = 0.92, goodness of fit index (GFI) = 0.95, and comparative fit index (CFI) = 0.99. The factor loading of each item was significant at the 0.001 level or better.

To further evaluate the distinctiveness of our scales, we computed two alternative models: (2) a model with two underlying constructs, in which mastery goal and performance goal were collapsed into one factor and (3) a model with one underlying construct. The fit statistics of the second model were $\Delta\chi^2(2) = 160.83$, $p < .001$, RMSEA = 0.16, AGFI = 0.66, GFI = 0.82, CFI = 0.82 and for the third model, $\Delta\chi^2(3) = 481.81$, $p < .001$, RMSEA = 0.27, AGFI = 0.32, GFI = 0.57, CFI = 0.48. These fit indices clearly show that our hypothesized three-factor measurement model (i.e., model 1) fits our data well and was the most appropriate for the situation under consideration.

Descriptive statistics. Table 1 displays the means, SDs, and correlations of the variables included in our study. The results show a significant bivariate relationship between mastery goals and intention to integrate the voiced idea ($r = .34$, $p < .001$). There is a marginally significant correlation between performance goals and intentions to integrate the voiced ideas ($r = .14$, $p = .055$). Furthermore, there is a significant correlation between the hierarchical position of the idea voicer (*subordinate* was coded as 0; *superior* was coded as 1) and intention to integrate the voiced idea ($r_{pb} = .18$, $p < .05$), indicating that ideas of superiors are associated with higher intentions to integrate than ideas of subordinates.

Testing of Hypothesis. Table 2 presents the regression results. To facilitate interpretation and minimize problems of multicollinearity, mean-centered independent predictors were used (Aiken & West, 1991). Model 1 includes the control variables and the independent variables of achievement goals and hierarchical position of the idea voicer. In model 2, we added the interaction term between performance goal and hierarchical position to test the hypothesis that hierarchical position of the idea voicer moderates the relationship between leader's performance goal and their intentions to integrate the idea. As can be seen in Table 2, the coefficient associated with the performance goal \times hierarchical position interaction term was significant (model 2; $B = 0.19$, $SE = 0.08$, $\beta = .17$, $p = .027$) and could explain incremental variance in intentions to integrate voiced ideas, over and beyond the variance explained by our independent variables and control variables (i.e., model 1), $\Delta R^2 = .02$, $F(1, 176) = 5.00$, $p = .027$. We added the interaction term between mastery goal and hierarchical position in model 3. As expected, the coefficient associated with the mastery goal \times hierarchical position

Table 1. Means, standard deviations, and correlations (study 1)

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. Age	36.53	10.18											
2. Gender ^a	0.37	0.48	-.14										
3. Time in supervisory position	4.66	4.42	.53**	-.11									
4. Education ^b	3.49	1.26	.05	-.02	.10								
5. Type of industry ^c	4.10	1.20	-.19*	.16*	-.17*	.15*							
6. Level of creativity	5.87	0.90	.10	.14*	.16*	.06	-.06						
7. Creative requirement from the job	5.31	1.07	.12	.13	.17*	.08	-.02	.56**					
8. Openness to experience	5.62	0.89	.08	.16*	.06	.14	.04	.65**	.51**				
9. Mastery goal	5.70	1.09	-.07	.07	.07	.12	.05	.48**	.37**	.43**			
10. Performance goal	5.11	1.42	-.00	-.09	.16*	-.01	-.16*	.24*	.18*	.11	.45**		
11. Hierarchical position ^d	0.46	0.50	-.05	-.07	.00	-.20*	-.00	-.07	.05	-.07	.03	.01	
12. Intention to integrate voiced idea	5.57	1.00	-.04	.21*	-.01	.02	-.14	.53**	.29**	.36**	.34**	.14	.18*

Note: $N = 189$.

For gender and hierarchical position, point-biserial correlations are reported.

^a0 = male; 1 = female.

^b1 = high school; 2 = some college; 3 = 2-year college degree; 4 = 4-year college degree; 5 = masters degree; 6 = doctoral degree; 7 = professional degree.

^c1 = primary industry; 2 = manufacturing; 3 = retail; 4 = financial; 5 = services; 6 = other.

^d0 = subordinate; 1 = superior.

* $p < .05$;

** $p < .001$.

interaction term was not significant (model 3; $B = 0.09$, $SE = 0.13$, $\beta = .07$, $p = .46$) and could not explain incremental variance in intentions to integrate voiced ideas, over and beyond the variance explained by our performance goal \times hierarchical position interaction, independent variables, and control variables (i.e., model 2), $\Delta R^2 = .00$, $F(1, 175) = 0.54$, $n.s.$ Note that in model 3, the performance goal \times hierarchical position interaction term is still significant, albeit marginally ($B = 0.16$, $SE = 0.09$, $\beta = .15$, $p < .10$).

Following recommendations of Engqvist (2005) and Frazier, Tix, and Barron (2004), the nonsignificant mastery goal \times hierarchical position interaction term should not be included in the final model, but the variables themselves should be retained. Accordingly, we proceeded with model 2 to further interpret our significant interaction (Figure 1) by additionally testing whether leaders high on performance goals significantly differ in their integrative intentions towards subordinates and superiors. Results of simple slope analyses (Aiken & West, 1991; Dawson, 2013) showed that when leaders were high on performance goals (+1 SD), the relationship between hierarchical position and integrative intentions was significantly different from zero ($B = 0.76$, $SE = 0.17$, $\beta = .38$, $p < .001$), meaning that leader intentions to integrate creative ideas were higher when these ideas were voiced by superiors

rather than subordinates. When leaders were relatively low on performance goals (-1 SD), the relation between hierarchical position of the idea voicer and leader integrative intentions was nonsignificant ($B = 0.23$, $SE = 0.17$, $\beta = .11$, $n.s.$). Together, these results confirm our hypothesis 1 that the relationship between leaders' performance goal and their intentions to integrate creative ideas is dependent on whether subordinates or superiors voice these ideas.

Conclusion and Discussion

Using a sample of individuals in actual leader positions, we found that leaders who pursue performance goals were sensitive to the hierarchical position of the voicer of creative ideas. Specifically, our results showed that hierarchical position of the idea voicer moderates the relationship between leaders' performance goal and their intention to integrate voiced ideas. This moderation signifies that leaders high on performance goals are less likely to integrate creative ideas when these ideas are voiced by subordinates rather than by superiors. For mastery goal leaders, we found no evidence that their intentions to integrate voiced ideas were sensitive to the hierarchical position of the idea voicer. Taken together, the present findings with high

Table 2. Results of regression analyses^a

Steps and variables	Steps and variables		
	Model 1	Model 2	Model 3
Step 1			
Age	-0.00	-0.00	-0.00
Gender ^b	0.34*	0.37*	0.36*
Time in supervisory position	-0.02	-0.02	-0.02
Education	0.06	0.06	0.05
Type of industry	-0.15*	-0.15*	-0.15*
Level of creativity	0.55**	0.53**	0.51**
Creative requirement	-0.06	-0.07	-0.06
Openness to experience	0.03	0.06	0.07
Performance goal	-0.01	-0.09	-0.08
Mastery goal	0.09	0.09	0.05
Hierarchical position ^c	0.49**	0.49**	0.48**
Step 2			
Performance goal * hierarchical position		0.19*	0.16 [†]
Step 3			
Mastery goal * hierarchical position			0.09
ΔR^2	.39**	.02*	.00
Adjusted R^2	.35**	.37**	.37**

^aNote: $N = 189$. Unstandardized regression coefficients are reported for the respective regression steps.

^b0 = male; 1 = female.

^c0 = subordinate; 1 = superior.

[†] $p < .10$;

* $p < .05$;

** $p < .001$.

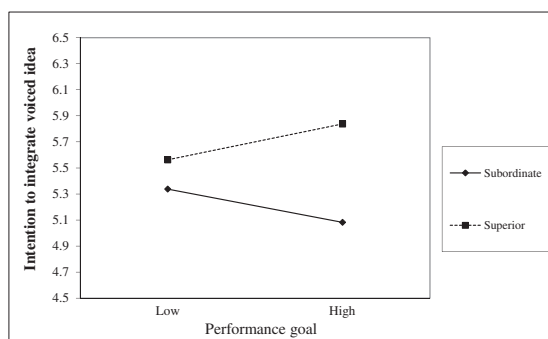


Fig. 1: Interaction effect of leaders' performance goal and hierarchical position of the voicer of creative idea (subordinate vs. superior) on integrative intentions

ecological validity provided preliminary support for our expectations, but limitations may be the cross-sectional nature of study 1 and its focus on integrative intentions rather than integrative behavior. We addressed these issues in study 2.

Study 2

Method

Participants and Design. One hundred Dutch business school undergraduates (of whom 57% were male; $M_{age} = 20.3$, $SD_{age} = 1.9$) participated for €7 or partial

course credit. Participants were randomly assigned to the conditions of a 2 (achievement goal: performance vs. mastery) \times 2 (hierarchical position of the voicer of creative ideas: subordinate vs. superior) between-subjects factorial design. Gender and age had no effects and are not discussed further.

Procedure. Participants were presented with a marketing scenario (for exact details, see Sijbom *et al.*, 2015b). The participants were assigned to the role of the company's marketing manager, who was responsible for positioning and selling the fast-food products on the market. In the scenario, the organization had developed a new product, so-called fat-free fries, and a project team was composed to successfully introduce the product to the market. The project team consisted of three subordinates, the CEO, and the marketing manager, who operated as the team leader. As the team leader, the marketing manager assigned the team members the task of developing informative sentences that could be used for applying the strategy toward marketing the new product that was propagated by the team leader. In actuality, the team members were nonexistent, and in their role of team leader, the participants received standardized informative sentences.

After participants had given preference to the informative sentences sent by two subordinates, the participants received an e-mail from a third member of the project team, named Anne (a unisex name in Dutch). In the e-mail, this team member proposed the use of another marketing strategy to introduce the new product. Anne's proposal was completely different from the common, established strategy propagated by the team leader to introduce new products. Given its novelty and potential usefulness in the context of the company, Anne's proposal can be considered a creative idea for renewing the marketing strategy (Amabile, 1996; Shalley *et al.*, 2004). After completing the dependent variables and the manipulation checks, the participants were debriefed and thanked for their participation.

Manipulations

Achievement goal manipulation. The manipulation took place after the participants had given preference to the informative sentences sent by two project team members and before they received an e-mail message from the third member of the project team, named Anne. The manipulation consisted of three coherent aspects from which a specific achievement goal was derived (for details, see Sijbom *et al.*, 2015a, 2015b). First, different information with respect to the organizational climate was given. In the performance goal condition, it was emphasized that the organization had a strong competitive climate in which leaders were continuously stimulated to demonstrate their competences by performing better than others, whereas in the mastery condition, it was emphasized that the organization had a strong developmental climate in which

leaders were continuously stimulated to develop their competences by gaining new knowledge and skills. Second, a personal leadership motto was imposed on the participants, which was aligned with the organizational goal climate described in each condition. The personal motto in the performance goal condition was, "Executives are superiors and, therefore, must demonstrate their superior competences in their executive work with others." The motto in the mastery goal condition was, "Executives are developers and, therefore, must keep developing their competences in their executive work." The participants were then asked to write a short narrative in which they clearly advocated their characteristic leadership motto and to describe their emotions and beliefs associated with it to intensify the manipulation (cf. Poortvliet, Janssen, Van Yperen, & Van de Vliert, 2007).

Finally, participants were recommended a specific achievement goal, which was consistent with the leader's individual motto and the organizational goal climate. In the performance goal condition, in which outperforming others was the central aim, participants were recommended to demonstrate their leadership competences in their executive work with others. In contrast, in the mastery goal condition, in which developing one's individual abilities was the central aim, participants were recommended to develop their leadership competences in their executive work.

Hierarchical position of the voicer of creative ideas manipulation. In the subordinate condition, Anne was presented as a subordinate of the marketing manager. In the superior condition, Anne was presented as the superior of the marketing manager. In addition, a simple hierarchical organizational chart was presented to visually illustrate the lower versus higher hierarchical position of Anne in relation to the focal manager.

Measures

Achievement goal manipulation checks. In the experimental conditions, participants were asked to indicate which characteristic personal leadership motto they held as manager. Participants could choose between (1) "Executives are superiors and, therefore, must demonstrate their superior competences in their executive work with others" (performance goal condition) and (2) "Executives are developers and, therefore, must keep developing their competences in their executive work" (mastery goal condition).

The short narratives participants wrote about their personal leadership mottos were coded by two judges who were unaware of the study's purposes and content. They independently assessed each participant's narrative on two dimensions, namely, the extent to which the narrative emphasized the importance of demonstrating leadership competences to others (performance goal dimension) and the extent

to which it emphasized the importance of developing leadership competences (mastery goal dimension). The response categories ranged from 1 (*not at all*) to 5 (*very much*). Intraclass correlations were .77 and .90 for the performance goal dimension and mastery goal dimension, respectively. Measures were averaged to obtain a single score on each dimension.

Hierarchical position of the voicer of creative ideas manipulation check. This manipulation was checked by asking participants to assess the extent to which the following six words described their position in relation to Anne: inferior (R), superior, powerful, subordinate (R), powerless (R), and superordinate. The response categories for each word ranged from 1 (*not at all*) to 7 (*very much*). A higher score indicates a higher degree of perceived hierarchical position by the participant in relation to Anne. The α coefficient for this 6-item scale was .75.

Integrative intentions. Integrative intentions ($\alpha = .83$) were measured using a 3-item scale that contained similar items as in study 1 (based on a subscale of De Dreu *et al.*, 2001), but items were adapted to fit the research context. An example item is "I examine ideas until I find a solution that really satisfies me and Anne." The response categories ranged from 1 (*not at all*) to 7 (*very much*).

Integrative behavior. After participants received the e-mail from Anne, they had the opportunity to write a response letter by e-mail in which they had to indicate what they would do with the creative idea put forward by Anne. The response letters participants wrote were individually coded by two raters, who were blind to condition, using a coding scheme (Appendix) that was developed for this study. The coding scheme indicated response options that ranged from 1 (*does not integrate the idea with own idea*) to 5 (*does integrate the idea with own idea*) and contained a label for every response option, an explanation for every response option, and an example that is illustrative for the corresponding response option. Illustrative for "low integrative behavior" are participants mentioning that they hold on to their own strategy, whereas illustrative for "high integrative behavior" are participants mentioning that they use (some) elements of the voiced suggestion. Agreement among raters was good (intraclass correlation = .73), and the ratings were averaged to obtain a measure for integrative behavior.

Results

Achievement goal manipulation checks. In the performance goal condition, 88% indicated the correct personal motto; this percentage was 100% in the mastery goal condition. The six participants who indicated the incorrect motto in the performance goal condition were left out for further analysis, leaving

$N = 94$. All further analyses will be conducted with this sample.

In addition, the narrative scores on the performance goal dimension were significantly higher in the performance goal condition ($M = 4.34$, $SD = 0.78$) than in the mastery goal condition ($M = 1.47$, $SD = 0.63$), $F(1, 92) = 391.37$, $p < .001$, $\eta_p^2 = .81$; the narrative scores on the mastery goal dimension were significantly higher in the mastery goal condition ($M = 4.62$, $SD = 0.61$) than in the performance goal condition ($M = 1.22$, $SD = 0.72$), $F(1, 92) = 612.28$, $p < .001$, $\eta_p^2 = .87$. Therefore, the achievement goal manipulation was successful.

Hierarchical position of the voicer of creative ideas manipulation check. The perceived hierarchical position of participants in relation to Anne was significantly higher in the subordinate condition (i.e., in which Anne was a subordinate) ($M = 5.33$, $SD = 0.52$) than in the superior condition (i.e., in which Anne was a superior) ($M = 4.16$, $SD = 0.79$), $F(1, 92) = 73.33$, $p < .001$, $\eta_p^2 = .44$. Hence, the manipulation of hierarchical position of the voicer of creative ideas was successful as well.

Testing of hypothesis. To test hypothesis 2, we conducted a 2 (achievement goal: performance vs. mastery) \times 2 (hierarchical position of the voicer of creative ideas: subordinate vs. superior) univariate analysis of variance with intentions to integrate as the dependent variable. No significant main effect of achievement goal was found, $F(1, 90) = 1.11$, *n.s.* The main effect of hierarchical position of the voicer of creative ideas, $F(1, 90) = 4.99$, $p < .03$, $\eta_p^2 = .05$, indicates that leaders had stronger integrative intentions when ideas were voiced by superiors ($M = 5.79$, $SD = 0.84$) than when they were voiced by subordinates ($M = 5.33$, $SD = 1.26$).

Most interestingly, we found the anticipated interaction effect of achievement goal and hierarchical position of the voicer of creative ideas on leaders' intentions to integrate creative ideas, $F(1, 90) = 3.98$, $p < .05$, $\eta_p^2 = .04$ (Figure 2). Planned comparisons showed that performance goal leaders' intentions to integrate creative ideas were lower when these ideas were voiced by subordinates ($M = 4.97$, $SD = 1.50$) rather than superiors ($M = 5.90$, $SD = 0.78$), $t(90) = 2.87$, $p = .005$, thereby providing initial support for hypothesis 2. As expected, the integrative intentions of mastery goal leaders did not significantly differ towards subordinates ($M = 5.64$, $SD = 0.92$) and superiors ($M = 5.69$, $SD = 0.89$), $t(90) = 0.18$, $p = .86$. Additionally, integrative intentions towards subordinates were lower for performance goal leaders ($M = 4.97$, $SD = 1.50$) than mastery goal leaders ($M = 5.64$, $SD = 0.92$), $t(90) = 2.21$, $p = .03$, whereas no differences in integrative intentions towards superiors were found between performance goal leaders ($M = 5.90$, $SD = 0.78$) and mastery goal leaders ($M = 5.69$, $SD = 0.89$), $t(90) = 0.65$, *n.s.*

We performed the same analyses with integrative behavior as the dependent variable. No significant main

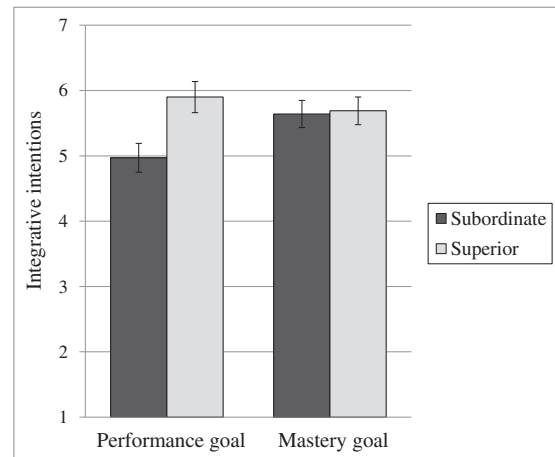


Fig. 2: Effect of achievement goals and hierarchical position of the voicer of creative ideas on integrative intentions

effect of achievement goal was found, $F(1, 90) = 1.60$, *n.s.* The significant main effect of hierarchical position of the voicer of creative ideas, $F(1, 90) = 11.47$, $p = .001$, $\eta_p^2 = .11$, indicates that leaders showed more integrative behavior when ideas were voiced by superiors ($M = 3.59$, $SD = 0.89$) than when they were voiced by subordinates ($M = 2.99$, $SD = 0.86$). The anticipated interaction effect of achievement goal and hierarchical position of the voicer of creative ideas on leaders' integrative behavior was not significant, $F(1, 90) = 1.27$, *n.s.* Together, these results provide support for hypothesis 2 when it concerns integrative intentions but not when it concerns integrative behavior.

Exploratory analysis. We did not find a significant interaction effect of achievement goal and hierarchical position of the voicer of creative ideas on leaders' integrative behavior. However, please note that contemporary approaches to mediated moderation analysis suggest that lack of such a significant direct effect (i.e., on integrative behavior) does not preclude testing for indirect effects (Aguinis, Edwards, & Bradley, 2016; Hayes, 2013; Kenny, Kashy, & Bolger, 1998; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). Hence, by using the PROCESS dialog for SPSS developed by Hayes (Hayes, 2013), we exploratively tested whether the effects of hierarchical position of the voicer of creative ideas (subordinate = -1, superior = +1) indirectly influenced integrative behavior through integrative intentions for performance goal leaders (coded as -1) rather than mastery goal leaders (coded as +1). The results show that the indirect effect of hierarchical position of the voicer on integrative behavior through integrative intentions was significant for performance goal leaders (unstandardized indirect effect = 0.14, $SE_{boot} = 0.06$, 95% CI: 0.047, 0.301), but not significant for mastery goal leaders (unstandardized indirect effect = 0.01, $SE_{boot} = 0.04$, 95% CI: -0.076, 0.087). Also, the index of mediated moderation was significant (index of mediated moderation = -0.14, $SE_{boot} = 0.07$, 95% CI: -0.318, -0.021; (Hayes, 2015)),

meaning that the indirect effects differ significantly for performance goal leaders and mastery goal leaders. Specifically, the hierarchical position of the voicer of creative ideas had an indirect effect on integrative behavior through integrative intentions for performance goal leaders and no effect for mastery goal leaders.

General Discussion

The purpose of this research was to examine how achievement goals influence middle management leaders in their integrative idea management of creative ideas voiced by meaningful others. In two studies, we showed that in their integrative idea management, only leaders with relatively strong performance goals were sensitive for the hierarchical position of the voicer of creative ideas. Specifically, in a scenario-based survey study (study 1), we found that the relationship between the strength of middle management leaders' performance goals and their intentions to integrate the creative ideas was more negative (or less positive) when ideas were voiced by a subordinate rather than a superior. Our results did not provide any indication that the strength of leaders' mastery goals was associated with their integrative intentions as a function of the hierarchical position of the idea voicer. In study 2, in which we manipulated both the strength of leaders' achievement goal and the hierarchical position of the voicer of creative ideas, we found a similar pattern of results. That is, leaders with a dominant performance goal showed lower integrative intentions when a subordinate rather than a superior was the voicer of the creative idea. Furthermore, in an exploratory analysis, we found evidence for an indirect effect of hierarchical position of idea voicer on integrative behavior through integrative intentions for performance goal leaders and not for mastery goal leaders. Taken together, these findings confirm our basic notion that leaders pursuing performance goals are sensitive to the hierarchical position of the idea voicer but not leaders pursuing mastery goals.

Theoretical Implications

This study contributes to the social psychological literature by showing that the strength of leaders' achievement goals can explain differences in their integrative intentions towards creative ideas voiced by meaningful others. Most studies in the achievement goal domain have focused on examining effects of achievement goals at an intra-individual level (for an overview, see Elliot, 2005; Van Yperen, Blaga, & Postmes, 2014), thereby neglecting achievement goal effects on interpersonal variables (for exceptions, see Darnon *et al.*, 2006; Poortvliet *et al.*, 2007; Sommet, Darnon, & Butera, 2015). Because leadership at its core is an interpersonal influence process, the present results represent a significant contribution to the growing field of interpersonal

achievement goal research by showing that leaders' achievement goals affect leaders' interpersonal behaviors and outcomes (e.g., Janssen & Van Yperen, 2004; Sijbom *et al.*, 2015a, 2015b).

Although the importance of the leader role in recognizing employee creativity is acknowledged (Zhou & Woodman, 2003), scant research has actually investigated factors and conditions that determine leaders' reactions. The present research contributes to the creativity literature by showing that achievement motivation and hierarchical position of the voicer of creative ideas affect in concert the way leaders react to and intend to integrate potentially novel and valuable ideas. It shows that novelty and usefulness may not be sufficient for ideas to be considered, recognized, and ultimately implemented.

Finally, rather than following mainstream leadership research on how subordinates are influenced by and respond to a leader (Yukl, 2009), we investigated the possible impact that creative subordinates and superiors may have on integrative idea management of leaders in middle management positions. Previous studies on leader roles have investigated either their downward (Balogun & Johnson, 2004) or upward (Dutton & Ashford, 1993; Dutton, Ashford, O'Neill, & Lawrence, 2001) influence. By demonstrating the impact that achievement goals can have on both leader upward and downward reactions, this study contributes to an emerging line of leadership research documenting how middle management leaders address influences flowing from different hierarchical levels within organizations (Floyd & Lane, 2000).

Strengths, Limitations, and Future Research

A particular strength of our research is the consistency in findings across both studies, employing different methods and samples, which contributes to the generalizability of our results. For example, the limitations of one methodology (i.e., a cross-sectional survey that does not permit causal inference) is compensated by the strength of the other methodology (i.e., an experimental design that enables to carefully isolate the impact of leader achievement goals and hierarchical position of idea voicer on leader integrative idea management). Reversely, experimental methods may be perceived as "artificial," which is compensated by the ecological validity of our field data. In this regard, it is important to note that recent leadership research documented similar effects between field-based studies and laboratory experiments (e.g., Mitchell, 2012; van Knippenberg & van Knippenberg, 2005).

However, with regard to the experimental design, it should be noted that we did not include a control condition to anchor the goal effects. By including a no goal control condition in future research, it will be possible to ascertain whether the effect at issue is predominantly driven by the performance goal condition, the mastery goal condition, or both. Another limitation has to do with our choice to focus on identifying when

achievement goals make leaders sensitive to the hierarchical position of the idea voicer. That is, our studies do not shed light on underlying processes that can explain why the interaction between leaders' achievement goal and hierarchical position of idea voicer leads to differences in leaders' integrative intentions. Therefore, future research may investigate process mechanisms such as epistemic and relational conflict regulation (Darnon *et al.*, 2010, 2006; Poortvliet & Darnon, 2010) and personal sense of power (Anderson, John, & Keltner, 2012) that can actually explain the moderating effects we found in the present research.

Although integration of creative ideas is an important task of leaders in middle management positions (*cf.* Raes *et al.*, 2011), they might not always be consciously aware of this integrating task. In order to better capture leaders' integration of ideas in work settings, further research should take into account perceptions of subordinates and superiors. Also, leaders may not always solely decide to integrate elements of voiced creative ideas. In fact, they may discuss with team members and negotiate with the voicer of a creative idea about what elements of the idea can be worked out and implemented and what elements should be excluded. Future research could therefore investigate the effects of leaders' ability in negotiation on their integrative idea management. Furthermore, we investigated ideas that were voiced by subordinates or superiors. Future research may also investigate leaders' reactions when ideas are voiced by other (middle management) leaders. We would expect that leaders pursuing performance goals might perceive such a situation as threatening and may show dominant behaviors (Sommet *et al.*, 2015). Also, future research may examine the effects of achievement goals at the unit level or team level. Research has shown that a shared team performance goal (as well as a shared team mastery goal) produces outcome interdependence among team members and generates a collective focus on achieving their goal (Gong, Kim, Lee, & Zhu, 2013). Accordingly, one might expect that in such teams the effect of trampling subordinates' voiced creative ideas by performance goal leaders may be smaller. Another interesting avenue for future research is to investigate leaders' tendency to integrate voiced ideas that are novel but not very useful, which may have detrimental consequences for organizations.

Practical Implications

Organizations, especially those that depend on creativity and innovation to survive, benefit from leaders who are able to recognize and evaluate creative ideas they deem valuable for the organization. Because some leaders may be more attached to their own established mental framework (Hambrick, Geletkanycz, & Fredrickson, 1993), valuable and fruitful ideas might be lost. The present results suggest that in particular the ideas voiced by subordinates run the risk of not being recognized by leaders who pursue performance goals. When evaluating and managing creative ideas,

leaders pursuing mastery goals seem to be less sensitive to the hierarchical position of the idea voicer because they focus more on the content and potential value of the voiced ideas. Consequently, the present findings suggest that organizations that create an environment in which leaders are encouraged to strengthen their mastery goals may create an advantage in this regard (VandeWalle, 2003; VandeWalle & Cummings, 1997). As it is easier to increase mastery goals than to lower performance goals of leaders (Baranik, Barron, & Finney, 2010), organizations should take this into account when determining the most efficient strategy to motivate their leaders.

Conclusions

The present research provides initial evidence for the joint impact of leaders' achievement goals and hierarchical position of the voicer of creative ideas on leaders' intentions to integrate those voiced ideas with their own ideas. Specifically, the stronger the leaders' performance goals, the lower their integrative intentions when creative ideas were voiced by subordinates rather than superiors. The strength of leaders' mastery goals was unrelated to their integrative intentions as a function of the hierarchical position of the idea voicer. By taking performance goal leaders' sensitivity to hierarchical position into account, meaningful and potentially crucial ideas for organizations' survival and prosperity may be preserved.

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Appendix

Coding Scheme Integrative Behavior

Code	Label	Additional explanation and example
1	Does not integrate the idea with own idea	Does not use elements of the creative idea for integration. For example, <i>Thank you for the creative input, but I will hold on to the initial strategy.</i>
2	Does take a look at it but most likely not integrate the idea with own idea.	Will take a look at it, but most likely will hold on to own initial idea. For example, <i>Nice idea, but I am still not convinced.</i>
3	Does take a look at it and will explore it further	Does view and explore the creative idea. For example, <i>Good suggestion, but I will have to obtain more information and acquaint myself with it more thoroughly before I can decide to use it or not.</i>
4	Does thoroughly explore it and most likely integrate the idea with own idea	Does thoroughly explore the creative idea and also asks for additional information with respect to the creative idea. For example, <i>Very interesting suggestion, but I would like some additional information.</i>
5	Does integrate the idea with own idea.	Does use elements of the creative idea and integrates them in the campaign. For example, <i>Very good idea, I will combine elements of your suggestion with elements of my initial strategy for the campaign.</i>