STRIVING TOWARD THE FUTURE:
ASPIRATION-PERFORMANCE DISCREPANCIES
AND PLANNED ORGANIZATIONAL CHANGE

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ABSTRACT
Interest has been growing in understanding how organizations’ aspiration levels affect their planning for future organizational change. Previous research did not specify whether organizations were using direct competitors or other comparable organizations as referents for forming their aspirations. In this study, we argue that organizations form their social aspirations based on two types of interorganizational comparisons: competitive and striving. In competitive comparisons, an organization compares its current performance against that of its current direct competitors. When relative performance is poor, these organizations plan more extensive and more radical change. However, we show that organizations that are performing well relative to competitors do not necessarily become inertial, as theory suggests. Rather, organizations engage in striving comparisons by comparing their current performance against the performance of organizations to which they strive to be like in the future. Our analyses show that organizations with large striving discrepancies are driven to more extensive and more radical change, even if they are performing well compared to current competitors. We examined this interplay between competitive and striving discrepancy in explaining organizational change on a sample of 131 AACSB accredited business schools.
Why organizations change and what impetuses spark greater or lesser changes are central questions in organization theory. Theorists in the organizational learning tradition view organizational change as being driven by discrepancies between an organization’s aspirations and the feedback it receives in terms of its performance (Cyert & March, 1963; Huber, 1991; Levitt & March, 1988). Organizations learn from experience, and unsatisfactory performance is the most salient experience for motivating changes to organizational goals, processes, and structures. Organizational learning research has explored the topic of organizational change primarily through these aspiration-feedback models (e.g., Baum & Dahlin, 2007; Bromiley, 1991; March & Shapira, 1992; Greve, 1998, 2003) and, thus, understanding the nature of these aspirations is crucial.

Organizational learning theorists argue that organizations initiate change when they are dissatisfied with their expected or aspired-to performance levels. Organizations establish the levels of performance they are seeking by comparing their current performance with their historical performance or with the performances of comparable organizations. The motivation to change depends on how far their attained performance level is above or below their aspirations (Cyert & March, 1963; Greve, 1998). Managers in organizations that perform below their aspirations attempt to narrow the performance–aspiration gap by exploring beyond the local environment and pushing for more extensive changes to the organization’s goals, processes, and structures in the hopes that they can raise the organization’s performance closer to their aspiration levels (e.g., Levinthal & March, 1981; Singh, 1986). By contrast, organizations that perform above aspirations can respond more complacently, reinforce their current ways of doing business, generally lack motivation to change, focus learning within the immediate interorganizational environment, and make fairly minor modifications to existing routines.
(Baum, Rowley, Shipilov, & Chuang, 2005). Thus, managers and decision makers evaluate the organization’s success or failure according to their attainment discrepancy (March & Simon, 1958; Milliken & Lant, 1991), which affects their subsequent motivations to learn and change (Baum & Dahlin, 2007).

When explaining the origin of these aspirations, organizational learning theorists argue that aspirations are set against both internal and external referents (Argote & Greve, 2007). Internally, organizational decision makers compare the organization’s current performance against its historical performance, using these historically derived discrepancies to determine how their organizations should adapt (e.g., Lant, 1992). Externally, the decision makers compare the organization’s performance against the performance of a referent or peer group of other organizations, a process that has been called social aspiration (e.g., Greve, 1998; Mezias, Chen & Murphy, 2002) owing to its origins in Festinger’s (1942) social comparison theory. However, recent research on the link between social aspirations and organizational change has yielded mixed and contradictory findings; some researchers have found that discrepancy between the organization’s current performance and its social aspirations leads to more organizational change (e.g., Ketchen & Palmer, 1999), some to less (e.g., Greve, 1998), some to riskier or more-radical change (e.g., Harris & Bromiley, 2007), and some to less-risky change (e.g., Iyer & Miller, 2008). We believe that without understanding these interorganizational social aspirations in greater depth, the performance-feedback literature will continue to find such contradictory results. Our study’s contribution to performance-feedback research is to bring elements of cognitive research on competitive and referent groups into the study of social aspirations to show that there are multiple types of social aspirations, and that better understanding these different social aspirations will better explain how decision makers respond to attainment discrepancies.
Cyert and March (1963), on whose work most of this research was based, argued that organizations look to the performance of both competitors and other comparable organizations when evaluating how to adapt to their environment. We suggest that choosing which organizations to compare against is an important decision, even if it is not made consciously but rather through heuristics developed through experience over time. How decision makers interpret the aspiration-performance feedback depends to an extent on which organizations they include in the referent group. While Cyert and March explicitly acknowledged that aspirations are subjective (1963: 124), modern researchers generally compare the performance of the organization to an average of all of the organizations across an entire industry or subindustry (e.g., Greve, 1998; 2003; Baum et al., 2005).

We argue that organizations derive their aspirations from two types of external social comparisons — competitive comparisons and striving comparisons — and that these comparisons explain in part the differences in organizational reactions. In competitive comparisons, an organization compares its current performance against that of its current competitors to develop its future aspirations. In striving comparisons, an organization compares its current performance against the performance of organizations to which the organization strives to be like in the future. Striving comparisons help the organization determine how it is doing relative to its imagined future (Labianca & Fairbank, 2005). For example, Tata Motors might make competitive comparisons against Hyundai, its most direct competitor currently, but might make striving comparisons against Toyota, which is outside its immediate competitive set but which Tata would like to equal someday.

Whether an organization views itself as a success or failure and how it responds in terms of changes will be determined by its attainment discrepancies against organizations it considers its
current rivals, as well as discrepancies against those it is striving to equal in the future. We argue that performance that is poor relative to direct competitors is likely to trigger more changes, and changes that are riskier and more radical. But when performance is good relative to competitors, it is important to understand how intensely the organization is striving to emulate organizations that are performing at much higher levels. Organizations that are not greatly striving to equal higher performers will react fairly inertially, while those organizations that are intensively striving to emulate higher performers will be more likely to make more frequent, more radical, and riskier changes.

Our focus in this study is on the managers’ plans and intentions to undertake change in their organizations. Thus, we assume that managers (and their coalitions) are influential actors who have power to initiate organizational change. We use the term “planned change” to refer to managers’ plans to initiate organizational change at a subsequent date. We distinguish between planned change type and planned change extent. Planned change extent refers to the number of changes an organization plans to initiate in the future. Planned change type captures how extensive and complex the changes are in terms of affecting many or few elements of the organization; thus, this captures whether the intended change is more incremental or more radical in nature. We examined how the interplay between competitive and striving comparisons relates to organizations’ planned change extent and type in a cross-sectional field setting using surveys and archival data with business schools as subjects for our research.

COMPETITIVE COMPARISONS AND ORGANIZATIONAL CHANGE

We began by examining the expected relationship between attainment discrepancy and planned organizational change, as predicted by the performance-feedback model. According to that theory, the difference between an organization’s performance and the performance of other
comparable organizations represents its attainment discrepancy. The greater the attainment discrepancy, the more the organization will engage in search behaviors and organizational change designed to minimize the discrepancy or close the gap (Cyert and March, 1963; Greve, 1998). Research based on the performance-feedback model and the effect of attainment discrepancies has focused almost exclusively on differences between organizations’ current levels of performance and the mean or median level of performance in the industry or in a subindustry, and has assumed that these differences match how organizations’ top managers make their social comparisons.

However, industries are not generally monolithic, and cognitive researchers have shown that top managers focus their comparisons on smaller sets of reference groups within their industries (e.g., Fiegenbaum & Thomas, 1995; Porac & Thomas, 1990). Generally, the primary comparison is against the direct competitors within the industry (Porac et al., 1995). Researchers have shown that managers often break competing industries into competitive sets to form cognitive maps (e.g., Reger & Huff, 1993) and, furthermore, that these maps affect organizational action (e.g., Reger & Palmer, 1996).

When managers compare their current performance with their competitors’, a process we call competitive comparison, they identify competitive discrepancies. Clearly, these salient interorganizational social comparisons inform the performance-feedback model. Competitive comparisons and competitive discrepancies are important because the competitive environment is a very significant potential threat: an organization that perceives high competitive discrepancy recognizes that it is underperforming its direct competitors — that it is failing (Milliken & Lant, 1991). Because failure threatens an organization’s very existence, managers of underperformers are likely to be motivated to improve performance vis-à-vis their rivals’. For example, Ketchen
and Palmer (1999) found that hospitals with high competitive discrepancies were more likely to enhance their high technologies. By contrast, the perception of success in comparison to competitors, low competitive discrepancy, is likely to result in adhering to the status quo, or inertia. For example, Greve’s (1998) study of the radio broadcasting industry found that stations enjoying low competitive discrepancy in their audience market share were less likely to switch their formats, while those experiencing high competitive discrepancy were more likely to alter theirs. Taken together, studies employing a performance-feedback model perspective suggest that organizations with high competitive discrepancies are more motivated to initiate changes than those with low competitive discrepancies.

\textit{Hypothesis 1a: An organization with greater competitive discrepancy will be more likely to plan more change than will one experiencing less competitive discrepancy.}

The performance-feedback model also suggests that when organizations fall short of their aspirations, they are more likely to undertake not only more change but also more radical and riskier change that alters more elements of how the organization normally functions (e.g., Cyert & March, 1963; Greve, 1998). The greater the discrepancy between performance and aspirations, the more likely that managers will abandon the more routine local searches that are typical when discrepancies are low and will, instead, search for and find solutions differently and ultimately induce riskier change.

Researchers using the performance-feedback model have relied on elements of prospect theory to suggest that different types of organizational change are likely to be initiated under different conditions of attainment discrepancy derived from interorganizational social comparisons. An organization is greatly threatened when its present performance shows high competitive discrepancy: it faces economic adversity and the danger of lagging so far behind its rivals that it
cannot recover. According to prospect theory, organizations facing such threats are more likely to pursue risky actions and radical change (e.g., Kahneman & Tversky, 1984; Shimizu, 2007). As top managers stare at the certainty of poor outcomes, they gamble on riskier actions, taking the organization further from its typical strategic behavior and routines and hoping that these bolder actions will yield better outcomes. They take these risks even though success may be improbable and the situation may actually grow worse. Prospect theorists argue that managers’ decision making is colored by this fundamental bias for loss aversion.

Some performance-feedback model researchers adopting this perspective have found empirical support for these arguments. For example, Harris and Bromiley (2007) found in their study of corporate accounting fraud that firms with low sales growth relative to their industry were more likely to engage in the risky practice of accounting misrepresentation. Audia and Greve’s (2006) study of the shipbuilding industry found that large companies with high competitive discrepancies were more likely to make the risky decision to launch a capital expansion of their facilities. Those studies concluded that radical, risk-seeking organizational change and behavior are consistent with performance-feedback models. The arguments for this perspective often assumed competitors are the focus of the comparison, even as the researchers used industry averages as proxies for making competitive comparisons. Following the same logic, we hypothesize:

\[ \text{Hypothesis 1b: An organization with a greater competitive discrepancy will be more likely to plan radical change than will one experiencing less competitive discrepancy.} \]

THE ROLE OF STRIVING ASPIRATIONS IN ORGANIZATIONAL CHANGE

Performance-feedback theorists have argued that when organizations exhibit superior or satisfactory performance relative to their competitors, they might become inert in responding to
environmental changes (e.g., Audia & Greve, 2006). Similarly, an organization with little discrepancy between its performance and its aspirations can be lulled into complacency (e.g., Ketchen & Palmer, 1999). Whether this process is conscious or unconscious, the leaders recognize that they occupy an acceptable competitive position, and they fear the inherent risk that comes from change, lest that change erode their favorable competitive position.

Here, however, a counterargument surfaces: As organizations face smaller performance discrepancies, they will have greater financial power to initiate change, experiment, explore (Cyert & March, 1963; Nelson & Winter, 1982), and make it more difficult for others to keep up with them. These arguments are at the heart of temporal competitive advantages theories (D’Aveni, 1994; Covin & Slevin, 1991), which advocate continuous changes that make it difficult for competitors to catch up. According to this view, organizations deliberately pursue innovation and are engaged in a constant search for new and more effective ways of doing things (Schumpeter, 1947: 151; Nelson & Winter, 1982; D’Aveni, 1994; Brown & Eisenhardt, 1989). This innovative activity often provides the potential for frequent development of new products and services, significant changes in the organization’s processes, structure, and capabilities, as well as changes in their strategies and the way they compete in the marketplace (Covin & Miles, 1999). Thus, according to this temporal competitive advantages view, organizations at low levels of competitive discrepancy will attempt to stay ahead of competitors by continuously undertaking change.

Indeed, even within the performance-feedback studies, a number of findings have suggested that being a relatively strong performer leads to more extensive and more radical change, counter to performance-feedback theory. For example, Iyer and Miller (2008) found that strong performers, with low attainment discrepancies, actually engaged in riskier behavior, in this case more
acquisitions. Chen and Miller (2007) found that strong performers engaged in more research and development intensity, which suggests they strongly desired change. Even Audia and Greve (2006) found that stronger performers among small firms exhibited greater factory expansion.

Why might some organizations become complacent and inert while others continue to embrace change, even while they have satisfactory competitive discrepancies? We argue that without understanding striving aspirations, researchers have an incomplete comprehension of how organizations interpret performance feedback and plan subsequent strategic change. Organizations with low striving discrepancies will become inertial when they are relatively strong performers, while organizations with high striving discrepancies will continue to be motivated to engage in organizational change.

**Striving Comparisons**

Cognitive researchers have argued that top managers face a number of choices as to which organizations are similar to themselves (e.g., Baum & Lant, 2003; Reger & Huff, 1993), which are their direct competitors (e.g., Porac & Thomas, 1990), and which they strive to emulate or equal in the future (e.g., Gioia & Thomas, 1996; Elsbach & Kramer, 1996). Many of these researchers have recognized that it may be inadequate to assume that organizations compare themselves against industry averages, as the learning literature generally has done. Instead, they have argued that we must think of industries as comprising various reference groups against which an organization compares its performance (e.g., Fiegenbaum & Thomas, 1995), and that the managers’ choices of these reference groups are sensitive to both strategic and political realities (Porac et al., 1999).
While comparisons against one’s competitors are clearly salient and immediate sources of social aspirations, researchers from cognitive strategic and referent group perspectives have pointed out that organizational change is also driven by comparisons between the organization’s current performance and the performance of those it is striving to be like in the future (e.g., Gioia & Thomas, 1996; Labianca & Fairbank, 2005). By ignoring these striving aspirations, learning theorists have been unable to adequately explain why some organizations with low competitive discrepancy will continue to pursue many radical changes, while others in the same competitive position will become more complacent and pursue only a few incremental changes.

As an important part of early research on social comparison theory, Festinger (1942) argued that future-oriented striving comparisons were an important determinant of individuals’ motivation to change. Although subsequent social comparison research has focused most heavily on historical- and present-oriented comparisons in much the same way that learning theorists have done in the organizational realm (see Buunk & Gibbons, 2007, for a review of social comparison theory), psychological research in the past two decades has increasingly turned toward understanding the role of more future-oriented, striving comparisons, including individuals’ ideas of what they would like to become. These ideal self concepts, “like-to-be selves” (Markus & Nurius, 1986), can help individuals set challenging stretch goals and motivate them to reach more closely their ideal persona (e.g., Ruvulo & Markus, 1992; Lin & Tsai, 2006).

Organizational cognition researchers increasingly have emphasized that future-ideal orientations strongly affect decisions regarding planned organizational change (e.g., Gioia et al., 2000). Although an organization might be generally associated with a certain status category, its leaders might want the world to view the organization in another category (Porac et al., 1995). Thus the top managers sense a striving discrepancy, a gap between their aspirations for their future
performance and their current reality, which then motivates them to pursue organizational change.

For example, Gioia and Thomas (1996) conducted a qualitative case analysis of a large public university whose top managers initiated a future-oriented striving discrepancy to motivate strategic change — to become a top-ten public university as their guiding striving aspiration. At the time, the university was well regarded as a major public research university with a solid reputation, but no one considered it to be among the elite public universities nationwide. The perceived discrepancy between their future-striving aspiration and the current situation created pressure for action to change. In response to the new vision, the university increased benchmarking of universities considered to be in the top-ten and then launched major change initiatives based on these comparisons.

In this study, we captured this forward-looking vision with the concept of *striving discrepancy*, which is the gap between an organization’s current performance and the performance of those organizations it aspires to be like in the future. Striving discrepancy reveals something about the extent to which the organizational members have an upward drive that is motivating change (Festinger, 1942). Whereas competitive discrepancy diagnoses current threats, future-oriented striving discrepancy signals dreams for a better tomorrow. In combination, these discrepancies can help us explain the firms’ propensity to engage in more or less change, and the extent to which that change will be radical or incremental.

Top managers with high striving discrepancies have strong upward drive — a desire to drive their organizations to be better — that often necessitates keeping an open mind about directions for the future. Indeed, Martins (2005) showed that business schools whose managers perceived a
large discrepancy between outsiders’ and managers’ perceptions of their industry status were more likely to undergo significant organizational change over a five-year period. Although the constructs are different — Martins’ perceived identity-reputation discrepancy and our focus on striving discrepancies — the similarities suggest that organizations whose managers are actively striving for a future organization that performs more strongly relative to organizations outside of its current competitors will be more likely to pursue greater change.

*Hypothesis 2a: Organizations with higher striving discrepancies will plan more change than will those with lower striving discrepancies.*

The research on striving in the cognitive literature has not generally explicitly examined the extent to which these striving discrepancies will motivate riskier, more radical change rather than incremental change. However, we can make some predictions based on suggestions from previous qualitative studies. For example, in Gioia and Thomas’s (1996) university study, the organization’s high level of striving discrepancy led it to make more radical changes, including joining a major athletic conference and creating a new school of information technology requiring a large amount of capital. Labianca and Fairbank’s (2005) study showed that a business school created an expensive doctoral program because of its high level of striving discrepancy. Thus, we might expect that this phenomenon would be generalizable to other organizations: as the gap grows between the organization’s current performance and that of others it is striving to equal, it will commit to greater, wider-ranging problemistic search and will ultimately engage in more radical organizational change.

*Hypothesis 2b: Organizations with higher striving discrepancies will pursue more radical change than will organizations with lower striving discrepancies.*
The moderating role of striving discrepancy on the relationship between competitive discrepancy and planned change

Thus far we have argued that organizations that experience either high competitive discrepancy or high striving discrepancy are more likely to undertake changes and that the changes will be more radical. However, these two types of discrepancy may affect organizations’ propensity to change differently. More specifically, we posit that an organization that is underperforming relative to its closest rivals is less concerned about its striving discrepancy and is much more oriented toward its competitive discrepancy — surviving in its current competitive environment. Consequently, we may expect that when organizations face high competitive discrepancy, the competitive discrepancy will be a primary driver of organizational change, irrespective of the level of striving discrepancy.

However, striving discrepancy becomes more salient driver of organizational change when organizations experience low levels of competitive discrepancy. At low levels of competitive discrepancy, organizations are more likely to become complacent (e.g., Miller & Friesen, 1984; Hedberg, Bystrom, & Starbuck, 1976). Research suggests that when an organization is performing well relative to its closest competitors, it might feel content with their current market position (Lant & Montgomery, 1987) and exhibit competitive inertia (Greve, 1998). Competitive inertia is high when a firm initiates a few changes within a narrow range of activity (Miller & Chen, 1994). We argue that organizations may avoid inertial competitive behavior when they have a high level of striving discrepancy. An organization that is comparable to or has an advantage over its direct competitors can reset its sights on other potential referents that are higher status or better performers (Labianca & Fairbank, 2005). Because of its emphasis on continuing to strive upward, the future-oriented aspiration discrepancy keep organizational
members motivated to continue pursuing opportunities for change and at the same time reduce their tendency to focus too much on how well they perform vis-à-vis their current competitors. For example, Labianca and Fairbank (2005) studied a business school that originally set its sights on being a top-25 school. Yet, once the goal was achieved, the top managers immediately increased its future aspirations to top-15 status and changed its comparison schools accordingly to continue to motivate change. In essence, by continually enacting a high-striving discrepancy, top management can discourage an organization with low competitive discrepancy from falling victim to competitive inertia, and continue to motivate change in an effort to reach more challenging performance targets. Choosing a new set of organizations as a reference point toward which to strive helps the organizational members to maintain a high level of urgency and need for initiating organizational change and improvement. Thus, we predict that organizations with low competitive discrepancies will be less likely to respond inertially if they have high aspiration discrepancies.

Hypothesis 3: There will be a negative interaction between competitive and striving discrepancy in explaining organizational change. At low levels of competitive discrepancy, organizations with low striving discrepancy will have low levels of change, and the change will be incremental; organizations with high levels of striving discrepancy will have high levels of change, and the change will be radical.

METHODS

Sample

We tested our propositions on a sample of 131 accredited business schools from the Association to Advance Collegiate Schools of Business (AACSB). We selected this industry because it
features systematic interorganizational monitoring and comparison, which is a regular feature of strategic planning among those schools that operate in a highly institutionalized sector. The institutional environment creates strong social pressures for organizations to conform to established norms as a means to demonstrate legitimacy (Meyer & Rowan, 1977). In particular, the AACSB requires schools to identify several categories of comparison groups — peers, aspirants, and competitors — during the initial accreditation process and for periodic accreditation reviews. Accordingly, it is reasonable to expect that administrators know or have immediate access to the organizations against which they compare themselves. Those administrators are responsible not only for formulating the strategic direction of their institutions but also for implementing strategic plans. This suggests that they will make their social comparison choices with considerable care, providing additional credibility for our primary data. In addition, reliable and consistent archival data is also readily available for this industry, as AACSB annually collects extensive strategic, structural, and performance data from its accredited institutions. Administrators who examine that data can determine differences in, for example, size, governance, resources, and programmatic focus for specific institutions. Furthermore, rankings of business schools are readily available from several external sources such as Business Week, and U.S. News and World Report, enabling administrators to determine differences in institutional status. Finally, this industry setting provides a sufficiently large sample of firms for adequate empirical investigation. For more on this industry and its planned changes at the time of data collection, please see Fairbank, Labianca, and LeClair (2005).

Data

We surveyed 468 business school deans from AACSB’s accredited schools in the fall of 2004. Email invitations were sent to deans or dean equivalents such as directors or department heads to
complete the Web-based survey hosted on the AACSB Website. The survey asked the deans about their strategic management activities as well as which schools they compete against most directly across their major programs and which schools they aspire to equal. Results from the survey were matched with data on the schools supplied by the AACSB. The final sample included 131 business schools, a 28% response rate.

Because a majority of deans did not respond to our survey, we tested for potential nonresponse bias. We obtained data on the number of faculty and students, public versus private schools, university type using the Carnegie Classification of Institutions of Higher Education (http://chronicle.com/stats/carnegie/), geographic region, and organizational reputation using U.S. News rankings of all undergraduate and graduate business programs. We then ran logistic regression to test for the significance of the differences between responders and nonresponders as a function of the above variables. No variables were significantly different except the number of students, which was our proxy for organizational size. The average number of students for the responding schools was 2,130; for nonresponders it was 1,976.

**Statistical Model**

In selecting an appropriate statistical model, we considered several issues. First, the extent of planned change, whether large or small, and the type of planned change, whether radical or incremental, may be simultaneously and systematically affected by stable and unobservable factors such as top managers’ risk-taking propensity. This implies that the errors might be contemporaneously correlated across different equations; therefore the coefficients should be estimated jointly. The high correlation between these two variables \((r = .61)\) further suggests that the same unobserved factor may cause these two variables. Because the two equations were linked only by their disturbances, we used a seemingly unrelated regression model (SUR)
The coefficients of this model were estimated using the generalized least squares (GLS) estimation method, which provides consistent and more efficient estimates than the ordinary least squares (OLS) method. In addition, the White test indicated the presence of heteroskedasticity among the standard errors. We identified that the variance in the errors around the predicted values was much greater for small schools than for large ones, with size being operationalized as the number of students enrolled. To deal with this issue, we applied weighted least squares estimation (Baum, 2006), which produces feasible generalized least squares estimates (FGLS). We used the number of students per school as an analytical weight \([aw=1/z_i^2]\) in STATA, where \(z_i^2\) is number of students squared.

**Measures**

**Dependent Variables**

**Planned Change Extent.** The planned change extent scale and the planned change type scale were derived from the scales used in Gioia & Thomas (1996) and Labianca et al. (2001). We used only the five content areas that had the highest factor loadings as reported by Gioia and Thomas (1996). This allowed us to minimize the number of questions that the respondents had to answer on a lengthy questionnaire. We asked deans, “Are many changes planned in the following areas?” on a five-point Likert scale (\(5 = \text{many}; 1 = \text{few or none}\)). We took the average across five content areas: program offerings, quality of students, quality of faculty, overall reputation and prestige, and financial resources. Reliability for the scale was good (Cronbach’s alpha = .82, mean = 3.26, std. dev. = .80). This variable, and the other subsequent variables, were standardized prior to inclusion in the regression model.

**Planned Change Type.** To measure planned change type, we asked deans, “Are these planned changes radical or incremental?” on a five-point Likert scale (\(5 = \text{radical}; 1 = \text{incremental}\)).
content areas were the same as for planned change type, and we used the average as above. Reliability for the scale was good (Cronbach’s alpha = .77, mean = 2.78, std. dev. = .80).

Although the planned change type and extent variables were related ($r = 0.61$), as one would expect, they depicted different construct domains and had only a 36% overlap in shared variance. A principal components factor analysis using a Varimax rotation on the data showed that the planned change extent and type items fell into the two categories as predicted (factor analysis results available from the authors).

**Independent Variables**

**Competitive and Striving Discrepancy.** Deans were asked to provide two lists of business schools they monitored. The first was a list of business schools with which they “compete most directly across your most important programs.” Respondents were given six slots and another open field in which they could name as many schools as they wished to provide. The average number of competitor schools was 3.92, std. dev. = 2.24. For the second list, we asked deans to name the business schools to which they aspired, that is, “schools that your school emulates, i.e., actively strives to equal or excel.” The average number of emulated schools was 3.34, std. dev. = 2.09. The average overlap between the competitive set of schools identified and the aspiration business schools was 21% (std. dev. = 16%).

*Competitive discrepancy* was measured as the difference between the focal school and the average of its competitor schools on revenue per faculty member. We standardized this variable to reduce potential multicollinearity problems when testing the interaction effects. The larger the discrepancy scores, the worse the school is performing relative to the members of its competitive set. We collected revenue and faculty data from the AACSB. Revenue per faculty member is a direct measure of a school’s economic health (Hopkins & Massy, 1981) that can be used to
compare across a wide variety of business school types, which can often differ dramatically in their revenue sources (e.g., funding from legislatures, endowment income, executive education revenue).

We measured *striving discrepancy* as the difference between the focal school and the average of its aspiration schools on revenue per faculty member. The larger the discrepancy, the worse the school was performing relative to the members of its set of aspirant schools. However, we prefer an alternative interpretation of this variable: the larger this discrepancy, the more ambitious are the organization’s future aspirations — they are striving high.

**Control variables**

**Ownership.** This categorical variable captured whether the business school was publicly funded (coded 1) or privately funded (2). This control variable was necessary because public business schools as a whole, compared with private schools, have been seeking more extensive and radical change, probably because legislative funding for public schools has been declining, and this has caused them to aggressively seek other funding sources, necessitating greater and riskier change initiatives (Fairbank, et al., 2005). The mean was 1.31 and std. dev. was 0.47.

**Organizational Size.** We used the number of students in each school as our measure of school size, and we standardized this variable. Previous research has suggested that organizational size is related to the flexibility and speed for initiating competitive actions (Chen & Hambrick, 1995) and the propensity for undertaking strategic change (Kelly & Amburgey, 1991). Organizational size has also been used to operationalize slack in previous performance-feedback studies (e.g., Audia & Greve, 2006), and is thus a theoretically important control variable.
University Type. University-level factors could also affect the business school’s propensity to change. For example, the resources available to a given business school may depend on the university’s range of baccalaureate programs and the number and the range of master’s and doctoral degrees awarded. We controlled for this possibility by using the Carnegie Classification of Institutions of Higher Education that classifies educational institutions into nine categories: (1) doctoral/research–extensive, (2) doctoral/research–intensive, (3) master’s colleges and universities I, (4) master’s colleges and universities II, (5) baccalaureate colleges – liberal arts, (6) baccalaureate colleges – general, (7) baccalaureate/associate’s colleges, (8) associate’s colleges, and (9) specialized institutions. Because we focused on AACSB-accredited institutions, which did not include associate’s colleges or specialized institutions at the time of our survey, our sample includes only institutions from the first six categories.

Organizational Reputation. We used the U.S. News and World Report’s Business School Ranking Survey to obtain organizational reputation data. We used the peer-assessment ranking of the quality of both undergraduate and graduate business programs. U.S. News surveys the deans of all accredited business schools about the quality of the business programs of other business schools on a scale from 1 (marginal) to 5 (outstanding). The peer-assessment scores were computed as an average of all responses. These scores ranged from 2.3 to 3.9 for undergraduate business programs and 2.3 to 4.2 for graduate business programs.

Geographic Region. We also controlled for the geographical location of the business school. Schools in the same region might be more likely to be chosen as a reference point either as competitors or as aspiration targets than are the schools located in more distant regions. We used the U.S. National Center for Educational Statistics’s regional classification of schools to categorize the business schools as midwestern, northeastern, southern, and western.
Common Method Bias

Because we collected some independent and dependent variables from a survey of deans, a single source, we used two procedures to assess the effect of common method variance on our findings. First, we applied Harman’s (1976) single-factor test. The unrotated factor solution showed that a single factor did not account for the variance of our independent and dependent variables. However, this is a weak test of common method bias because it is unlikely that one-factor model will provide the best fit with the data. Therefore, Podsakoff, MacKenzie, Lee, and Podsakoff (2003) also suggested a partial correlation procedure for controlling for method bias. This procedure required a direct measure of the potential source of the common method bias. One source of common method bias is the so-called social desirability factor, which refers to “the tendency on the part of individuals to present themselves in a favorable light, regardless of their true feelings about an issue or topic” (Podsakoff et al., 2003: 881). One potential proxy for this social desirability bias is the business school’s reputation. The rationale is that the deans of high-reputation schools are more likely to have a higher propensity to present their school and themselves more favorably, which in turn might affect their responses on both their plans for strategic change and the selection of their competitors and aspiration targets. We used the U.S. News rankings of the quality of their undergraduate and graduate business programs to control for social desirability effects in all models. In addition, we transformed our independent and dependent variables by partialling out the effect of the U.S. News undergraduate and graduate ranking variables. The estimated coefficients using the transformed variables did not change the results. This procedure provided greater confidence that common method bias did not affect our results.
RESULTS

Table 1 shows descriptive statistics and bivariate correlations among all variables examined in this study. Table 2 shows the FGLS with the analytical weight estimates of the coefficients and standard errors of all proposed models.

---

Insert Tables 1 and 2 about here
---

The coefficients for competitive discrepancy in Models 1 and 3 were positive and statistically significant ($b = .538; p < .001$ and $b = .299; p < .001$, respectively), providing support for Hypotheses 1a and 1b. Organizations that faced greater competitive discrepancy were more likely to plan more extensive and more radical change than organizations with lower competitive discrepancy. Models 1 and 3 also show the coefficients for striving discrepancy. The coefficients for striving discrepancy in predicting both planned change type and planned change extent were positive and statistically significant ($b = .815; p < .001$ and $b = .958; p < .001$), providing support for Hypotheses 2a and 2b. Organizations that faced a greater striving discrepancy were more likely to plan more extensive and more radical change than organizations with lower competitive discrepancy.

In Models 2 and 4 we added the multiplicative interaction terms to test the moderating role of striving discrepancy on the relationship between competitive discrepancy and planned change. The coefficients of the interaction terms in predicting planned change type (Model 2) and planned change extent (Model 4) showed a similar pattern; they were negative and statistically significant ($b = -.519; p < .001$ and $b = -.364; p < .001$, respectively), providing support for Hypothesis 3. The form of these interactions is illustrated in Figures 1 and 2.
Both figures illustrate similar patterns. High competitive discrepancy stimulated firms to undertake more and riskier change, regardless of the level of aspiration discrepancy. However, when competitive discrepancy was low, the propensity of firms to undertake change depended on whether the organization had high or low striving discrepancy. When firms had low competitive discrepancy, they may have become satisfied with the current state and initiated little change. However, when organizations’ reference points were oriented toward more successful targets, they were more likely to exhibit high striving discrepancy, which was associated with them undertaking more and riskier organizational change.

**DISCUSSION**

Organizational change is difficult but necessary. Without change, the resulting inertia can deny organizations the ability to adapt to their environments and survive. Yet, organizational change is also inherently risky – even if an organization is sufficiently motivated to enact change, members must envision the organization’s future (Labianca et al., 2001; Gioia, Schultz, & Corley, 2000), and be able to overcome resistance to change (Labianca, Gray, & Brass, 2000; see also Miller & Chen, 1994). Thus it is important to understand when an organization will decide to minimize change, as compared with when it will seek many and risky changes that move it away from its normal strategies and routines.

Research in organizational learning theory has argued that organizations are differentially motivated to change as a function of their perceived satisfaction with their current level of performance relative to that of their referents. In general, most empirical findings have supported the argument that organizations are more motivated to change when their performance is below
that of their referents, and less likely to change when they are content with their performance — that is, when their performance meets or exceeds that of their referents. These findings are not uniform, however. Other researchers have found support for a contrary argument that organizations are more motivated to change when they are performing satisfactorily; that is, when they are performing better than their referents.

Why these conflicting findings? In this study, we found evidence for our argument that conflicting findings arise from prior research’s failure to recognize that organizations make competitive and striving social comparisons. Specifically, a focal organization assesses its performance by comparing it against direct competitors and against organizations it strives to equal. Previous research assumed that organizations used only their direct competitors as referents for forming their aspirations, or simply used industry averages that obscured the difference between competitive and striving comparisons. In this paper, we showed that although competitive comparisons are important motivators of organizational change, they provide an incomplete understanding of organizations’ propensity to change. Whether a firm will undertake change depends on the interplay between competitive and striving comparisons.

We argued that competitive comparisons are stronger motivating factors for organizational change than are future-oriented striving comparisons. Our results suggested that organizations are more motivated to change when their competitive discrepancy is higher — when they underperform relative to their direct competitors — regardless of their striving discrepancy. When they cannot keep up with their direct rivals, they are under immediate increased threat of survival, and this adversity makes comparisons with rivals critical for performance evaluation. On the other hand, striving discrepancy becomes critical for explaining why organizations that outperform rivals continue to change rather than becoming complacent and falling victim to
organizational inertia. Our findings suggest that organizations with low competitive discrepancy are more likely to undertake change when they exhibit high striving discrepancy; that is, organizations that are outperforming their direct rivals are less likely to exhibit inertia when they aspire to equal a new set of more successful organizations in the future. Just as challenging or stretch goals are important for individuals’ motivation to continue learning and performing well, the same is true for organizations. Because a performance discrepancy is greater between a focal firm and more prestigious and better-performing organizations, the focal firm has greater incentive to initiate organizational change. Additionally, given that the more successful organizations are likely to be operating in a different competitive environment, our findings also showed that striving discrepancy motivated the focal organization to undertake not only more but also more radical change.

Our study highlighted the importance of integrating research on aspiration levels from the aspiration-feedback model perspective (e.g., Greve, 1998; Chen & Miller, 2008; Mezias et al., 2002) with the work on aspiration and emulation being conducted by cognitive researchers (e.g., Gioia & Chittipeddi, 1991; Gioia & Thomas, 1996; Elsbach & Kramer, 1996; Labianca et al., 2001; Gioia et al., 2000; Labianca & Fairbank, 2005). The latter research has recognized explicitly that the choice of referent groups is a cognitive process that incorporates both current- and future-oriented elements. As organizations ask, “What do we want to be in the future?” they might actually be laying the foundation for dealing with the challenges they face today. Our work also advances this cognitive research. For example, much of the empirical work in that area has focused on how striving aspirations affect issue interpretation (e.g., whether an issue is viewed as being strategic or tactical) without examining how it affects organizational change (e.g., Gioia & Thomas, 1996), or has only done so with reference to a single case study (e.g.,
Recent researchers in the cognitive tradition are moving into examining the relationship between discrepancies and organizational change. For example, Martins (2005) showed that the perceived discrepancy between a business school’s ranking and the business school’s organizational identity drove the extent of organizational change. We would urge them to marry an aspiration-feedback approach that incorporates competitive discrepancies, as we have done here, with an approach that takes into account how top managers perceive discrepancies on issues such as striving, emulation, identity, image, and reputation.

Limitations. One limitation of our paper is that we did not consider the importance of organizational identity, image, and reputation in motivating the extent and radicality of change. Previous researchers (e.g., Martins, 2005; Elsbach & Kramer, 1996; Gioia & Thomas, 1996) have shown that the motivation for an organization to change is often rooted in how the organizational members and top managers see their identity, how they perceive that outsiders view their image, and what their actual reputation is according to outside constituencies. Organizational reputations, whether transmitted through formal means such as rankings published in magazines or more informal means such as through discussions within an industry can motivate organizational members to want others to view their organizations more favorably. The extent to which a gap exists between the organization’s current state and the desired future image and reputation can motivate top management to increase the amount and radicalism of change (e.g., Dutton & Jackson, 1992; Gioia, et al, 2000; Martins, 2005). If top management uses and communicates these image concerns effectively, they can also motivate organizational members to avoid their natural inclination to resist change, and thus increase the likelihood that change will be successful. Although we controlled for organizational reputation, our research asked only which organizations the focal organization was aspiring to be like, but did not attempt
to parse the different influences of desired future identity, image, and reputation as some previous studies have done (e.g., Gioia & Thomas, 1996; Martins, 2005). We encourage future researchers to consider integrating a more fine-grained approach to studying desired identity, image, and reputation into the study of performance-feedback models and organizational change. Another limitation is that we did not know to what extent internal considerations, such as the strength of leadership, administrator tenure, coalition support, and internal power dynamics, affected current strategic planning choices (e.g., Greenwood & Hinings, 1996). An approach that more comprehensively considered both the internal and external forces for social comparison and strategic change would enrich our understanding of the dynamics of comparison and change processes. Another limitation is that we relied on survey data to understand the top managers’ view of their competitive and striving comparisons and were unable to conduct a longitudinal investigation to track actual change, as compared with planned change. While this is not critical in the sense that the performance-feedback model is a cognitive theory of comparisons and reactions to those comparisons, a longitudinal investigation of how these competitive and striving discrepancies affect change over time would enhance our understanding.

Implications for future research. One strength of our study is that we engaged directly with managers to understand their aspirations. While most research on behavioral/learning theory has attempted to examine aspirations by collecting secondary data about performance and structural variables such as organizational size to understand managers’ desires to engage in risky change (cf., Greve, 2008), direct discussion with the top managers who make these decisions has been lacking. Gathering primary data from top managers helps us understand who they view as competitors (e.g., Reger & Huff, 1993; Reger & Palmer, 1996), which provides more accurate insight into how organizational members perceive competitive discrepancies. It also opens a
window into understanding how they are thinking about the future, and what organizational changes they are planning. Without attempting to understand future aspirations, researchers have lacked a more complete comprehension of what drives organizational leaders to select more or less risky change paths. As researchers have moved increasingly toward more deeply understanding the choices between different types of organizational changes, we urge a move from purely secondary data sources toward giving voice more directly to top managers through such methods as surveys or interviews so that the desired futures of organizations can be better understood.
REFERENCES


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* significant at 5%
### TABLE 2
Seemingly Unrelated Regressions Model for Planned Change Type and Planned Change Extent

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<th>DV: Planned Change Type</th>
<th>DV: Planned Change Extent</th>
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<td>(0.308)</td>
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<td>-0.530**</td>
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<td></td>
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<td></td>
<td>(0.114)</td>
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</tr>
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<td></td>
<td>(0.427)</td>
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<td>Organizational Reputation (graduate programs)</td>
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</tr>
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<td></td>
<td>(0.473)</td>
<td>(0.313)</td>
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<td>Competitive Discrepancy (cd)</td>
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<td>0.673**</td>
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<td>R-squared</td>
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Standard errors in parentheses
* significant at 5%; ** significant at 1%
FIGURE 1
Interaction between Competitive Discrepancy and Aspiration Discrepancy in Explaining Planned Change Type
FIGURE 2
Interaction between Competitive Discrepancy and Aspiration Discrepancy in Explaining Planned Change Extent
Appendix

As noted above, we found 21% overlap between business schools selected as competitors and those selected as striving organizations (i.e., in 21 percent of the cases, deans selected same business schools as both competitors and striving organizations). This means that the average performance of competitors and average performance of striving organizations share some common variance. To test whether this common variance have biased our results, we computed competitive and striving discrepancy excluding those business schools that were chosen as both competitors and striving referents. Table 3 below shows the results based on this “clean” measures. This additional analysis produced similar results to those reported in the Results section above. The interaction effects are even stronger and the shape of the moderating effect is consistent with that shown in Figures 1 and 2.
### TABLE 3
Seemingly Unrelated Regressions Model for Planned Change Type and Planned Change Extent without Overlap

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Model 1: Planned Change Type</th>
<th>Model 2: Planned Change Type</th>
<th>Model 3: Planned Change Type</th>
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<td>0.106 (0.391)</td>
<td>0.531 (0.340)</td>
<td>0.565+ (0.290)</td>
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<td>University Type</td>
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<td>0.503** (0.081)</td>
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<td>0.38 (0.417)</td>
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<td>Organizational Reputation (graduate programs)</td>
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<td>Aspiration Discrepancy (ad)</td>
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<td>Constant</td>
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"R-squared" 0.63 0.75 0.84 0.88

Standard errors in parentheses
+ significant at 10%; * significant at 5%; ** significant at 1%
Furthermore, in this paper, we used difference scores to measure the discrepancy between a focal business school performance and the average performance of its referents. Edwards (1994; 1993) showed that the use of simple algebraic difference scores have several drawbacks. First, algebraic difference indices can confound the strength of the effects of each component. For example, it is possible that the effect of competitive or striving discrepancy is mainly driven by one component of the difference score – either a focal firm’s performance or referents’ average performance. Second, the use of difference scores unnecessarily imposes a constraint on the equation. For example, say that Y denotes organizational change, X1 denotes a focal business school performance, X2 is an average performance of its competitors, and X3 is an average performance of its striving organizations. Using difference scores, the regression equation is as follows: \( Y = \beta_0 + \beta_1(X_2-X_1) + \beta_2(X_3-X_1) \), where \( \beta \)'s are the estimated coefficients. If we rearrange this equation, we get \( Y = \beta_0 + \beta_1X_2 - \beta_1X_1 + \beta_2X_3 - \beta_2X_1 \). The negative signs for the coefficients \( \beta_1 \) and \( \beta_2 \) are constrained by the researcher’s choice to use difference scores. This can be justified only if 1) the constrained coefficients \( \beta_1 \) and \( \beta_2 \) are statistically significant and 2) both coefficients have negative sign when each component is estimated independently (Edwards, 1994).

To provide greater validity for using difference scores in our analysis, we estimated the following regression model with unconstraint coefficients: \( Y = \beta_0 + \beta_1X_2 + \beta_2X_3 - \beta_3X_1 \). If the estimated unconstrained coefficient \( \beta_3 \) is statistically significant and has a negative sign, then we have greater confidence in the validity of the difference index. Table 4 below shows the results of the regression model shown above. In both models (change type and change extent), the coefficient of the “focal business school performance” (X1) is negative and statistically significant.
### TABLE 4
Testing the Validity of Difference Scores

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<td>Average Performance of Striving Organizations</td>
<td>0.693**</td>
<td>0.714**</td>
</tr>
<tr>
<td></td>
<td>(0.150)</td>
<td>(0.096)</td>
</tr>
<tr>
<td>Performance (a focal firm)</td>
<td>-1.052**</td>
<td>-0.760**</td>
</tr>
<tr>
<td></td>
<td>(0.401)</td>
<td>(0.257)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.752**</td>
<td>3.894**</td>
</tr>
<tr>
<td></td>
<td>(0.369)</td>
<td>(0.237)</td>
</tr>
<tr>
<td>Observations</td>
<td>128</td>
<td>128</td>
</tr>
<tr>
<td>&quot;R-squared&quot;</td>
<td>0.69</td>
<td>0.89</td>
</tr>
</tbody>
</table>

Standard errors in parentheses
+ significant at 10%; * significant at 5%; ** significant at 1%

The results in Table 4 show that the effect size of referents’ performance (the effect of the competitors’ average performance is 1.62 and 1.30 and the effect of the average performance of striving organizations is .69 and .71) is larger than the effect of a firm’s own performance (-1.05 and -.76). This suggests that firms’ planned change is more strongly driven by social comparisons than is driven by historical comparisons. Edwards (1994) notes that the algebraic difference index model conceals this useful information. However, our analysis does not rule out
the possibility that the unequal effects are because the two components have unequal variances. Unequal variances should be expected in our case because the referents’ performance is based on multiple items (several business schools’ performances), whereas a focal firm’s performance is one item score. Thus, future research is needed to derive more reliable conclusions about whether social comparisons are stronger driver of change than are historical comparisons (with a firm’s own performance). Nevertheless, our results show that both types of comparisons are relevant for predicting organizational change as both coefficients are statistically significant.

Edwards (1994) also recommends tests for higher order models to examine whether the underlying structure is a more complex than a simple plane implied by the difference score model. However, he also notes that such exploratory analysis should proceed “if no specific model is identified a priori” (Edwards, 1994: 74). First, it is clear that in our case the difference scores model is well-established in prior literature. Second, the alternative models proposed by Edwards, such as squared difference or absolute difference models, are clearly inadequate for testing performance-feedback model of organizational change. Both squared difference index and absolute difference index assume that the positive and the negative scores have the same effect on organizational change (i.e., they are directionless measures). This is contrary to the theoretical underpinnings of the performance-feedback model. In fact, prior research has shown that the relationship between performance discrepancy and organizational change is different at above and below the performance level of referents. In addition, our findings also suggests that as competitive discrepancy (competitors’ performance minus a focal firm’s performance) increases (and the scores increase and become positive), the motivation for organizational change increases, whereas when competitive discrepancy decreases (and the scores become
negative), the motivation for change decreases (indeed, unless a firm also have high striving discrepancy).

Finally, note that we followed Edwards (1994) only to provide support for the validity for using difference scores in our analysis. We do not use polynomial regression analysis to test our hypotheses. This is because it is difficult to meaningfully interpret the moderating effects using polynomial regression equations. To illustrate, we test in this paper the following model: $Y = \beta_0 + \beta_1(X_2-X_1) + \beta_2(X_3-X_1) + \beta_3(X_2-X_1)(X_3-X_1) + \text{controls} + \epsilon$, where $X_1$ is a focal firm’s performance, $X_2$ is average performance of competitors, $X_3$ is average performance of striving organizations. If we follow Edwards (1994) procedure we should test the following model: $Y = \beta_0 + \beta_1X_2 + \beta_2X_3 - \beta_3X_1 + \beta_4X_1^2 + \beta_5X_2X_3 - \beta_6X_1X_2 - \beta_7X_1X_3$ (to test a higher order models, we would also need to add squared terms for each component). This procedure not only significantly reduces the degrees of freedom (and thus increases type 2 error), but also makes it extremely complex and difficult to interpret the form of the interaction effects. We encourage future research to examine how the three dimensional surface based on the following three dimensions: $X_1$, $X_2$ and $Y$ will change at different levels of $X_3$. 