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Students' Perceptions of Social Loafing: Its Antecedents and Consequences in Undergraduate Business Classroom Teams

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We report the findings from a 2-stage study of student perceptions of social loafing as it occurs in undergraduate business classroom teams. Given the popularity of student teams as a teaching and learning tool in undergraduate business classrooms, as well as the near absence of research that has focused on students' definition of the problem, our purpose was to develop preliminary findings and spur new thinking about social loafing in this context. A definition of the construct was developed, and its key antecedents and consequences identified by way of exploratory analysis of student perceptions. The resulting hypotheses and conceptual model were tested using a structural equations model by way of a survey of 349 students taking classes in an undergraduate business program. Student perceptions of social loafing seem more complex than current views suggest. They point to student apathy and social disconnectedness as antecedents, and note that they take compensatory action when members of their teams social loaf. We identify issues for future research and discuss implications for instructors and program administrators.

Many business school instructors assign class-related comprehensive projects to undergraduate student teams. To receive the collective grade, students are expected to collaborate, address key project-related issues, write a comprehensive paper, and make a final oral presentation. Classroom teams are used as a tool for teaching and learning for many reasons, including their potential for engaging students, cross-fertilizing ideas, and producing deep learning about complex content areas. Unfortunately, the commitment to teamwork and the contribution to the collective task can vary significantly among students. Most business school instructors who assign students to teams have heard complaints about *social loafers,* that is, students who do not contribute to the team, yet receive the same grade as others.

Scholars, whether focused on work or class-related teams, agree that social loafing is about the reduction of physical, perceptual, or cognitive effort in the presence of others, and that loafers expect others to pick up the slack even as they receive the same rewards (see Brooks & Ammons, 2003; Comer, 1995; Latane, Williams, & Harkins, 1979; Murphy, Wayne, Liden, & Erdogan, 2003; Williams, Harkins, & Latane, 1981). Much of what is known about social loafing emerges from studies that have either focused on work teams (e.g., George, 1992; Liden, Wayne, Jaworski, & Bennett, 2004; Murphy et al., 2003), or drawn inferences

about work teams based on experiments conducted on students (e.g., Guerin, 1999). The overriding focus is on identifying the causes of, and eventually the remedies for, social loafing. In a similar vein, scholars have proposed a host of interventions, techniques, and tools that increase feedback, information sharing, and accountability in ways that reduce social loafing in classroom teams (e.g., Bailey, Sass, Swiercz, Seal, & Kayes, 2005; Brooks & Ammons, 2003; Dineen, 2005), and have strongly advocated for the teaching of teamworking skills to college students (e.g., Bolton, 1999; Connerley, 2001; Ettington & Camp, 2002; Gilad, Donahue, & Klimoski, 2004; McKendall, 2000; Page & Donelan, 2003; Vik, 2001).

What is curiously missing in the rich body of research is the perspective of the student. How students define social loafing, based on their experiences in classroom teams, and what they identify as its key antecedents and consequences remain uninvestigated. Since Latane, Williams, and Harkins (1979), virtually all writing assumes that loafing is about slacking off; we can identify no study that has attempted to identify the conceptual building blocks of the construct using qualitative research. Whether students share the literature's view of social loafing as a unidimensional construct associated with slacking off and free riding remains unknown. Similarly, while most of the writings on antecedents of social loafing are based on literature-derived hypotheses tests by way of experimental research (e.g., George, 1995), what participants, particularly students, affected by loafing attribute as antecedents is yet to be determined using exploratory approaches. It is clear from recent trends that the interest in improving team-based teaching and learning is rising, and student teams in undergraduate business classrooms are here to stay; businesses value potential recruits who can work well in teams (e.g., Gilad, Donohue, & Klimoski, 2004), and accreditation bodies such as the Association to Advance Collegiate Schools of Business (AACSB) look favorably upon programs that integrate teamwork in their curriculum (Bailey et al., 2005; Bolton, 1999). It is therefore to the advantage of scholars, business school instructors, and program administrators, to inform their thinking and actions about improving team-based teaching and learning in general, and reducing social loafing in particular, by students' perceptions of the problem.

Our study focused on the perceptions that undergraduate business students formed after participating in course-related and team-based projects that awarded a collective team grade. The team assignment required them to meet and collaborate within and outside class, solve assigned problems, and make oral and written presentations. The study was conducted in two stages. In stage one, we identified the conceptual building blocks of the social loafing construct and its antecedents and consequences based on an exploration of student perceptions. In the second stage, we surveyed 349 undergraduate business students to test the hypotheses and the model that emerged from stage one.

Our central purpose here is to present the key learning we derived from our 2-stage study and stimulate new discussion and research, versus the attempt to produce generalizable findings. We begin with a brief review of the literature to show how we defined our exploratory research questions. Then we discuss our 2-step data collection method and the process by which we developed our model. Finally, we discuss the key findings and their implications for future research.

THE LITERATURE AND RESEARCH QUESTIONS

Our purpose here is to show how we derived the two key research questions that guided our initial exploratory study, versus an attempt to recreate comprehensive reviews of social loafing literature that have occurred elsewhere (see Comer, 1995; Karau & Williams, 1993; Murphy et al., 2003; Liden et al., 2004 for extensive reviews). Briefly, two features of social loafing research helped us define our focus on student perceptions and identify our exploratory research questions.

First, there is near-universal agreement on the definition since Latane, Williams, and Harkins' (1979) original contributions; social loafing relates to the multiple facets of slacking off and free riding in the presence of others. Scholars also agree that loafers are encouraged by the knowledge that the real extent of their contribution cannot be rewarded or punished by evaluators—hence no harm can come from contributing less instead of more (e.g., George, 1992; Guerin, 1999).

Second, almost the entire stream of research that has examined work teams has tried to answer the question: "Why do people social loaf?" The answers seem linked predominantly to the intrinsic motivation of the loafer (George, 1992), individual differences (Charbonnier, Pascal, Brauer, & Monteil, 1998; Smith, Kerr, Markus, & Stasson, 2001), individualistic instead of collective values (e.g., Earley, 1993), the nature of the task, and to the sociotechnical environment from which potential loafers infer: "If I slack off, others will pick up the slack, and I will get away with it" (e.g., George & Jones, 1997; Weldon & Mustari, 1988; Williams &

Karau, 1991). There is considerable evidence to suggest that individual differences can explain why some are more likely to loaf than others (e.g., Bolin & Neuman, 2006; Morgeson, Reider, & Campion, 2005). For instance, individuals who believe they are better than others (Charbonnier et al., 1998), or have low cognitive needs (Smith et al., 2001), or exhibit low achievement motivation (Hart, Karau, Stasson, & Kerr, 2004) are more likely to loaf than others. In a potentially controversial study, Kugihara (1999) finds women less likely to loaf than men. Personality, a construct closely related to individual differences, seems to determine a person's ability to work with others (e.g., Bolin & Neuman, 2006; Morgeson, Reider, & Campion, 2005). However, it seems weakly associated, if at all, with social loafing. Cohen (1988) finds evidence to suggest that social loafing is too strong a phenomenon to be affected by personality; that is, people engage in social loafing despite their personality.

In terms of the tasks, for instance, higher levels of social loafing occur when the task is unmotivating or meaningless (e.g., Hackman, 1987; George, 1992; Price, 1993), and when it is more invisible and unrecognizable than visible and recognizable (see George, 1992; Liden et al., 2004). Higher levels of social loafing also occur when loafers believe their contributions will not make a meaningful difference because there are many others making a contribution (e.g., Petty, Harkins, & Williams, 1980), or when they believe that their uniqueness and individuality will not be sufficiently rewarded in a team environment (Liden et al., 2004).

In terms of the sociotechnical environment, social loafing occurs when the group is more heterogeneous than homogeneous (e.g., Earley, 1993), and larger instead of smaller (Liden et al., 2004). Poor relations with leaders and perceptions of social injustice (Murphy et al., 2003), the desire to not appear as a sucker or as someone who is too competent (Comer, 1995), and lack of evaluation and peer appraisals (Druskat & Wolff, 1999; Harkins & Jackson, 1985; Harkins & Szymanski, 1989; Liden et al., 2004) are attributed as causes of social loafing. Some scholars find that when team members believe others are social loafing, they feel encouraged to social loaf themselves (Veiga, 1991); others find that this discourages social loafing (see Liden et al., 2004). To reduce social loafing, these researchers argue in favor of changing the team's sociotechnical environment in ways to ensure that potential loafers draw explicit inferences about not getting away with slacking off without consequences.

As Ettington and Camp (2002) argue, however, there are important differences between work and classroom teams in terms of their membership, selection processes, issues of control, and lifespan. Whether the definition, causes, and remedies, shaped largely by the concern for reducing social loafing in work teams, are directly applicable to the classroom teams for teaching and learning remains unknown largely when the thinking is uninformed by students' perceptions of the problem. At present, the absence of concern for students' perception of social loafing precludes a literature-derived, hypotheses-testing study and strongly implicates the need for exploration. Hence we defined two research questions to guide our exploratory research: (a) How do students perceive social loafing based on their experiences with undergraduate business classroom teams? and (b) what do they define as the key antecedents and consequences of social loafing? We began an exploration of these questions with the intent of developing a grounded model, and then proceeded to confirm the model using survey data.

METHOD

Exploratory Study

In the exploratory stage, one co-author began by conducting a class discussion on social loafing in two sections of the organizational behavior course. The definition of social loafing based on George's (1992) measure was discussed at length. Then, students were asked to reflect and make a note of the social loafing they had personally experienced in classroom teams. After students had the opportunity to retrieve at least one relevant experience and keep it focal in their consciousness, they were asked to convene into their teams and collectively address the following:

- Discuss instances of social loafing each team member has observed/experienced in previous teams.
- What exactly did the social loafer do in each case?
- How did the social loafing impact the team in each case?
- How have you dealt with social loafers in previous teams; i.e., what exactly did you do when faced with social loafing in your team? What happened as a result?
- Why do you believe the social loafer(s) did what they did?
- What are some of the things you wish your professor had done to prevent social loafing?
- What class policy would you formulate to prevent social loafing in your classroom teams?

The instructor briefly participated in each team's discussion and made notes about the responses

from participants. Each team was asked to provide a written description of the discussion that occurred and present the collective responses to these questions. The instructor's notes and the written responses from the teams were content analyzed. In pursuit of designing scales with content validity, we wanted to know what students think about when they think about their experiences related to each of the questions. During the content analysis, we focused on (a) the breadth of issues raised in response to each question; and (b) key commonalities and differences in student responses. The analysis yielded a list of issues discussed by students in response to each question.

Once we had identified key areas that deserved additional information, the same co-author conducted a class discussion about social loafing in two undergraduate sections of the Organizational Behavior course. During each class discussion, the instructor drew six columns on the white board titled (a) What social loafers do; (b) The impact of social loafing on the team; (c) Why you think social loafers do what they do? (d) What did you/your team do in response to the social loafing? (e) What was the response from the social loafer? (f) What should the professor have done? and (f) What class policy would be useful for preventing social loafing in the future? During the class discussion that occurred, the instructor sought clarifications and asked for concrete examples. The responses were also recorded on the white board as the class progressed. To ensure connectedness among responses, a facilitator recorded each concrete example of social loafing with relevant information regarding how it impacted the team, what the team did in response, why the team felt the social loafer was behaving that way, what they expected the instructor to do, and the policy that they thought would prevent such social loafing. Our intent was to not only identify the universe of concepts relevant to each question for content validity of scales, but also to derive hypotheses about relationships among the concepts.

Content Analysis, Guiding Framework, and Hypotheses

At the end of the 2-stage exploratory study, we had accumulated the following material: instructor notes of team discussions in stage one, the written account of each team's responses to our questions in stage one, transcripts of tape-recorded class discussions, instructor notes, and a record of the notes made on the white boards in stage two. The content analysis of this material was done in two steps. First, we listed all issues that students had identified in response to the questions we asked and during their team discussions. Second, we counted the number of times each issue was mentioned by students—the more it was mentioned, the more likely we were to use that issue in developing our measures. The content analysis of students' perspectives yielded the following exploratory findings: (a) Social loafing is more than "slacking off;" it relates to poor quality work performed by the person, as well as to their distractive and disruptive behaviors; (b) a student's apathy and social disconnectedness are attributed as the antecedents of social loafing behaviors; and (c) as a result of social loafing, other team members work harder to pick up the slack, and the team's overall performance is poor. By *social disconnectedness*, we refer to the negative nature or weakness of social relationships between social loafers and their peers in the team; that is, specifically to the extent to which they appear to (a) dislike or fail to get along with one or members of the team; (b) not belong to the team. By *apathy*, we refer to social loafers' apparent disinterest and lack of caring for the task, other team members, or the grade, to their perceived laziness and expectation that others would pick up the slack.

There was also considerable evidence to suggest that distractive, disruptive behaviors are intrinsic to social loafing behaviors in the verbal and written protocols. Consider the following three responses from students during group discussions:

> [The social loafer] contributed very little to the project over the course of the term. He seemed to be much more content showing up to meetings very late, talking to his friends on his cell phone most of the time [during meetings]. He was a smoker as well and insisted on going out to smoke every time a difficult situation arose, always to return when [the rest of us] had solved the issue.

> It was good that [name of person] tried to make our meetings as entertaining as possible, but telling too many jokes and acting unprofessionally also slowed down our meeting pace and hindered the team's progress.

> We had a social loafer who would not show up to meetings and would not do his work. He would also talk excessively during meetings about things off topic. His social loafing made the rest of us take our work less seriously. We were often distracted by him during meetings.

The notion of distractive, disruptive behaviors also emerged in the written responses turned in by students. Consider two of the following written excerpts submitted by students:

> The social loafer would always make jokes and put off the task at hand we were trying to solve. We would meet as a group and make a list of objectives and it would take our group longer [to accomplish them] because this person was always off task and procrastinating.

> Another, more significant example of social loafing in the group is that two members often engage in side conversation while we are in the middle of a team discussion. While some socialization is good for team morale and even can create more shared reality, it slows these members down and the rest of the group is affected. This causes unrest in the group as it is very distracting. The group loses focus on the task. Sometimes other members, me included, join the discussion instead of having the members maintain focus. This has increased meeting time, when that time could be used for other parts of the project. The two members decrease the group productivity in discussion by not being involved and they also distract the other members from the task.

Based on the data-derived notions, we tested the following hypotheses—all in the context of undergraduate business classroom teams, and from the perspective of team members:

Hypothesis 1: Students define social loafers as those that engage in (a) doing less and slacking off; (b) doing poor quality work for the team; and (c) engaging in distractive and disruptive behaviors.

Hypothesis 2: Students will attribute social loafing behaviors (i.e., doing less, slacking off, doing poor quality work, and distractive, disruptive behaviors) to (a) loafer's apathy; and (b) loafer's social disconnectedness.

Hypothesis 3: As a consequence of social loafing behaviors, students will say that (a) they worked harder to pick up the slack; and (b) the team's competitive performance was adversely affected.

Survey

In the final stage, a questionnaire was administered to 394 undergraduate business students in 23 sections in a midsized state university (see Table 1 for scales).[1] All participants were full-time, traditional age (18–23 years) undergraduate students in the residential campus of the university. The instructor in each class informed students that (a) They were participating in a study of social loafing; (b) social loafers were members of teams that did not do their share of the work, slacked off, expected others to pick up the slack, and expected and often received the same grade as other team members. Students were asked to answer all questions, but refrain from completing the survey if (a) they had never experienced social loafing; or (b) they had already completed the questionnaire in another course. All students present when the surveys were administered indicated that they had experienced social loafing in their classroom teams at the university and completed the survey (the participation rate was 100%). No extra credit was awarded for participation. The data were input by a work study student and double checked for recording errors by the authors.

The process we followed for developing our model is as follows (see Appendix for details on model development and how we addressed the issue of common methods variance). First, we looked at the descriptive statistics and also assessed Cronbach's alphas for each scale to examine the internal consistency of the scales (see Table 1). Second, we conducted an exploratory factor analysis (EFA) to assess how various items loaded on their hypothesized constructs. We carefully examined the EFA "solution" to see how a group of items loaded on each of the factors and then went back to our qualitative findings to assess the extent to which the EFA "solution" was consistent with our qualitative findings. We want to emphasize that our grounded theory provided us the context for interpreting the mathematical results of EFA. Third, we conducted confirmatory factor analysis (CFA) to assess (a) unidimensionality of scales; (b) discriminant validity of scales; and (c) whether the social loafing was a second-order construct. Finally, we used EQS software to analyze our hypothesized model.

[1] The sections included (number of sections in parentheses) were Econometrics (1), Entrepreneurship (1), International Business (2), International Economics (1), Labor Economics (1), Leadership (1), Management Information Systems (2), Marketing (3), Organizational Behavior (4), Organizational Strategy (4), Production and Operations Management (2), Public Relations (1), Sports Economics (1).

TABLE 1
Scales and Items

Scale	Items	Alpha
Loafer's apathy	I believe that the social loafer • expected others to pick up the slack with no consequences to him/her • was not interested in the topics/tasks assigned to the team • did not care about earning high grade in the class • just did not care • was just plain lazy	0.600
Loafer's distractive and disruptive behavior	The social loafer • had trouble paying attention to what was going on in the team • engaged in side conversations a lot when the team was working • mostly distracted the team's focus on its goals and objectives	0.671
Loafer's disconnectedness	I believe that the social loafer • did not like one or more members on the team • did not get along with one or more members of the team • was not part of the clique, and did not seem to belong to the team	0.792
Loafer's poor work quality	The social loafer • came poorly prepared for the team meetings • had trouble completing team-related homework • did a poor job of the work he/she was assigned • did poor quality work overall on the team	0.820
Team members do more to pick up the slack	As a result of social loafing • team members had to waste their time explaining things to the social loafer • other team members had to do more than their share of work • other team members had to redo or revise the work done by the social loafer • the work had to be reassigned to other members of the team	0.722
Poor overall team performance	As a result of the social loafing • the team had fewer good ideas than the other teams • the team missed deadlines • the team's final presentation was not as high quality as that of other teams	0.653

FINDINGS

Figure 1 reflects the empirical test of our model that incorporated relationships among social loafing behaviors and their antecedents and consequences (path coefficients shown in the figure). The model and the linkages shown with solid arrows have an acceptable fit. Specifically, the model has a $\chi 2$ of 195.991 with 201 degrees of freedom. Further, the values for CFI (0.987), NFI (0.897), NNFI (1.005), as well as the average standardized residuals (0.076) indicate a good model fit. The standardized item loadings and the associated t values for the measurement model reconfirm that all items had significant loadings on their hypothesized constructs. The results indicate that the social loafer's apathy (H1; $\beta = 0.462$, $t = 2.92$, $p < 0.05$) and loafer's social disconnectedness (H2; $\beta = 0.207$, $t = 1.91$, $p < 0.1$) are positively related to his/her distractive behavior on the team. Loafer's apathy is also positively related to poor quality work (H3; $\beta = 0.656$, $t = 3.96$). When loafers produce poor quality work, the team members do more and pick up the slack to compensate for the loafing (H8; $\beta = 0.724$, $t = 4.41$) while his/her distractive behavior (H5; $\beta = 0.296$, $t = 2.06$) positively contributes to poor overall team performance. Consistent with our intent, we devote the following discussion to key findings that serve to stimulate new thinking and raise questions about social loafing that deserve additional academic scrutiny.

Complexity of the Social Loafing Construct

Figure 1 shows the key differences between students' perceptions and current views of social loafing (see box and shaded area in Figure 1). The literature's view of the construct is unidimensional; it relates to the multiple facets of slacking off in the presence of others. This view is captured by George's (1992) 10-item interval scale, which assesses the extent to which people do less; that is, the extent to which they defer responsibility, put forth less effort, spend less time with key constituents or defer such activity to others, postpone or avoid their share of work, leave early, and take it easy. Although this scale is widely adopted (e.g., Liden et al., 2004; Murphy et al., 2003), our data-derived view is significantly more complex and multidimensional. In this regard, two issues are worth noting. First, the items related to "doing

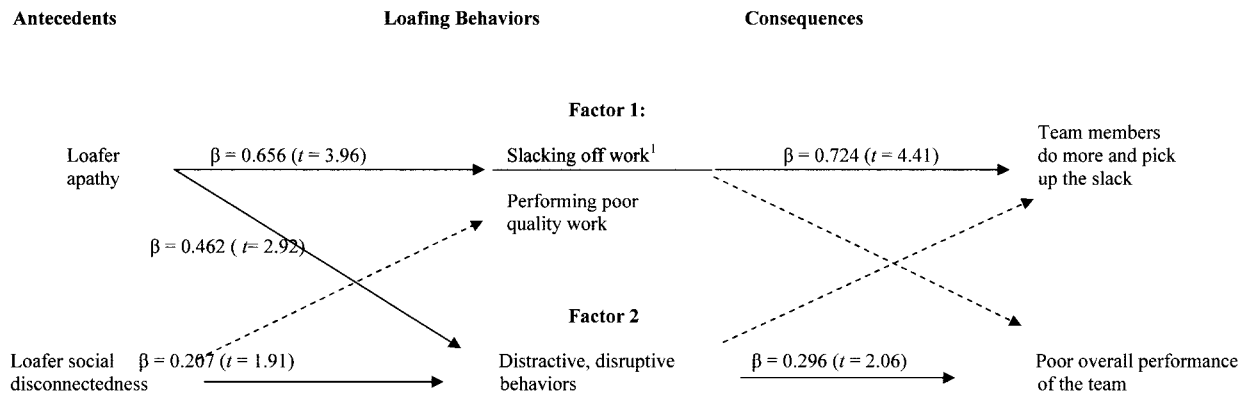

FIGURE 1

Student Perceptions of the Antecedents and Consequences of Social Loafing in Undergraduate Business Classroom Teams. *Note*: dotted arrows indicate *insignificant* linkages.
[1] Shaded part of factor 1 reflects current literature's view of social loafing.

less" and those related to "doing poorly" load on the same factor; that is, slacking off and poor contribution seem conceptually inseparable in the perceptions of students. Moreover, items related to distractive behaviors load on a separate factor. Second, the two first-order factors (i.e. *poor work quality* that combines "doing less" and "doing poorly," and *distractive behavior*), in turn, load significantly on the second-order factor. The CFA confirms that social loafing is a second-order construct. Specifically, the fit statistics for the second-order CFA for the social loafing construct were as follows: χ^2 (*df*) = 48.903 (12); BNFI = 0.959; BNNFI = 0.945; CFI = 0.969; RMSEA = 0.058. The standardized loadings for each of the items on their hypothesized first-order factors were above 0.52 and statistically significant. Further, the standardized loadings (*t* value) for the two first-order factors on their second-order factor were as follows: 0.697 (9.93) for distractive behavior and 0.627 (9.93) for poor work quality. Overall, the analysis indicates an excellent model fit and provides empirical evidence of the second-order nature of the social loafing construct.

The complexity of the construct also raises two issues. First, it questions whether current thinking is too strongly tethered to the notions of contribution-quantity, and incognizant of the loafer's contribution-quality. In other words, while the literature views social loafing as a matter of contribution-quantity (less versus more), students appear concerned about its quality, and its impact on their behaviors. As Figure 1 shows, the poor quality work causes them to compensate for the loafer and work harder, and the distractive, disruptive behavior negatively impacts the team's overall performance. Second, the findings suggest the strong likelihood that current conceptualizations lead to undermeasures of the social loafing construct, and systematically fail to account for the variance associated with key omitted factors. For instance, there is mixed evidence regarding the linkages between the quality of relationships among team members, and the extent of social loafing that occurs in teams. While the extent of team cohesiveness, and attribute of interpersonal relationships, is negatively related to the extent of social loafing (see Karau & Hart, 1998; Szymanski & Harkins, 1993), a recent study finds that exchange relationships among coworkers, that is, the degree to which people act in ways to benefit each other, is unrelated to social loafing (Murphy et al., 2003). While Murphy et al. (2003) attribute this counterintuitive finding to moderating variables that have not been accounted for, our findings question whether these results are attributable to the incomplete measurement of the social loafing construct; that is, attributable to the unaccounted variance associated with poor quality work, and distractive, disruptive behaviors.

Team Members' Attributions of Antecedents

As Figure 1 shows, team members attribute factors rooted in the loafer's psychosocial make-up (i.e., apathy) and in their social relationship with others (i.e., social disconnectedness) as antecedents of social loafing behaviors. Both poor quality work and distractive and disruptive behaviors are attributed to loafer apathy, whereas distractive and disruptive behaviors are uniquely attributed to social disconnectedness. Poor quality work is not attributed to social disconnectedness; that is, this link is not significant (β = 0.008, *t* = 0.08, see dashed arrows in Figure 1 referring to insignificant linkages). Evidence of such attributions raises

three key and interrelated issues that deserve additional academic attention.

First, student attributions of antecedents differ from views expressed in the literature and question whether the latter is too strongly tethered to the notion of conscious choice. Scholars suggest, for instance that (a) loafers figure out that slacking off will not produce a direct negative impact on their personal well-being, and that others will pick up the slack; and (b) the sociotechnical environment of the team should be changed to ensure that potential loafers do not draw inferences about getting away with expending less effort (e.g., Guerin, 1999; Weldon & Mustari, 1988; Williams & Karau, 1991). Differing from this view, students suggest that (a) loafing occurs because the loafer does not care and is socially disconnected from the team members; and (b) social loafing behaviors are either weakly linked or independent of conscious choice making. Verbal protocols of students show that loafers are largely unaware that they are viewed as poor contributors who distract and disrupt others. Instead, the voices reflect their belief that they have contributed as much as any other team members, until they receive poor evaluations from their peers *after the fact*. Because they are not aware of, nor care about the compensatory behaviors of the team members, they seem hard pressed to reconcile how the team received a good overall grade if they had indeed performed poorly as indicated by peer evaluations. They seem likely to attribute the poor post priori peer evaluation to factors other than their performance. Social loafing, in such instances, seem far removed from cognitive evaluation of alternatives or consequences, or active choice making. A student who received poor peer evaluations after completion of teamwork, noted:

> They marked me down with [low marks] for effort. If I didn't put in any effort would I have finished all of my tasks and finish them correctly like I did? Absolutely not. How can I get marked down for effort when I spent just as much time and effort as they did, if not more? I understand why you have this policy in place but I also know that the only reason I got marked down was because I did not fit in with my group. Our personalities clashed. The effort was there 100%.

If future confirmatory evidence from students' teams were to similarly indicate that the antecedents are independent of or weakly linked to choicemaking and are instead linked to apathy and social disconnectedness of loafers, then (a) it may represent a key distinction between work and student teams; and/or (b) the implied remedies for social loafing are likely to differ substantially from current remedies proposed in the literature. In particular, manipulating the sociotechnical environment of the team may not produce sustained reduction in social loafing if the antecedents are rooted in other factors as the current literature suggests.

Second, the data attest to the perceptiveness of students in terms of their attributions. For instance, students attribute distractive, disruptive behaviors to loafer apathy; that is, to their lack of caring about the task, their laziness, and their expectation that others will pick up the slack. This attribution mirrors views in the literature: the psychology literature regards disengagement and disruption as characteristic of apathy. Della Fave and Massimini (2005: 270) note, "apathy is characterized by . . . The lack of attention, concentration, and control lead to disruption in consciousness and to the waste of psychic resources and skills." In a similar vein, students attribute distractive, disruptive behaviors uniquely to the loafer's social disconnectedness, and not to their apathy; that is, to their not liking, not getting along, and not belonging to the team. This too is a perceptive attribution; it mirrors current views that poor needs management, distrust, and anxiety caused by social disconnection result in distractive, disruptive behaviors. For instance, persons with low social connectedness are attributed with poor abilities to manage their own needs, emotions, and thinking (e.g., Tesser 1991) and are more likely to exhibit lowered self-esteem (e.g., Kohut, 1984). Socially disconnected people are also known to display lowered levels of trust toward others (Aronoff, Stollak, & Woike 1994), and suffer from high levels of anxiety (Lee & Robbins, 1998). The perceptiveness suggests that new insights into team-based teaching and learning can emerge when student perspectives are better understood.

Third, the prevalence of social loafing, and by association the prevalence of its antecedents raises several concerns. Consider that every one of the traditional age students in 23 sections of undergraduate classes participated in the study based on at least one experience with social loafing in their classroom teams; no student declined to participate on account of "no experience with social loafing." Even if the 100% response rate was inflated by a host of factors including the captive nature of the audience, and even if the responses were influenced by the introductory preamble and by the resulting interactive testing effect, social loafing seems highly prevalent, if not universal. If

so, the question arises: "Are its antecedents similarly prevalent"? Both student apathy and social disconnectedness are deeply concerning issues that the current pedagogical literature does not recognize. While a rich body of writings has explained the apathy of bystanders (see Garcia, Weaver, Moskowitz, & Darley, 2002 for extensive review), and some have highlighted student apathy toward political and social activism (e.g., Birnbach, 1985; Fatsis & Weinbach, 1998; Leob, 1988, 1996), how student apathy hinders learning in classroom teams has attracted virtually no attention. In a similar way, social disconnectedness has received significant attention (e.g., Baldwin, 1994; Lee & Robbins, 1995, 1998; Tesser, 1991), and Generation Y's attachment to the cyberspace of other people is noted (e.g., Crawford, 2005); how it gets in the way of teaching and learning in business school classrooms in general, and contributes to social loafing in classroom teams in particular remains uninvestigated. Sustainable solutions to social loafing in undergraduate classroom teams are more likely to emerge when these important antecedents are better researched and understood.

Loafing and Team Outcomes

From students' perspectives, loafers' poor quality work and distractive, disruptive behaviors produce two distinct outcomes. As a consequence of poor quality work, team members do more, revise and redo the work, take on more responsibility, and pick up the slack created by the loafer. As a student explains:

> So, the other students took charge and took the positions they were interested [in] and took [on] the majority of the work and the "social loafer" sat back and had the work done for him. It was considered more desirable to have the social loafer do no work since his prior work was less than satisfactory.

The second-stage data analysis shows that students do not view poor performance of the team as a consequence of the loafer's poor quality work; that is, the link between loafer's poor quality work and poor overall performance of the team is insignificant ($\beta = 0.203$, $t = 1.66$, see dotted arrow in Figure 1). Instead, poor performance of the team is linked uniquely with distractive behaviors of the loafer, which in turn is attributed by team members to both the loafer's apathy and social disconnectedness. Data analysis indicate that while they can accommodate poor quality work of the loafers by reallocating their attention and energies, and ensure that they do not receive an overall low team grade, team members are powerless to stop the impact of distractive and disruptive behaviors of students on poor overall team performance. Loafers' distractive and disruptive behaviors are not significantly linked to team members doing more ($\beta = 0.234$, $t = 1.67$, see dotted arrow in Figure 1). There are two implications of this finding that deserve additional research. First, the findings reinforce Williams and Karau's (1991) notion that people compensate; that is, they work harder when they perceive one or more coworker is loafing, particularly when the task is of great importance (see Liden et al., 2004 for similar findings). Second, poor quality work—including that resulting from slacking off—and its insignificant linkage with poor team performance suggests that team members implicitly collude to become martyrs and compensate for the loafer's free-riding behaviors.

In a related vein, the student perceptions of consequences indirectly underscore current views that strongly advocate for curriculumwide instruction regarding team-working skills. Although we did not specifically query what instructors did, we infer that students are not receiving sufficient instruction and training about work teams because (a) students seem to take the effort to compensate for the loafer's poor contribution by doing more of what they know how to do; and (b) students cannot manage or compensate for the distractive, disruptive behaviors of the loafers because it lies outside their skill set. Current writings suggest that our data-derived notion of deficiency in instruction and skills may well represent something more than an idiosyncratic quirk of our sample, and indicative of a larger trend related to inadequate instruction and training in colleges (e.g., Bolton, 1999; Ettington & Camp, 2002; McKendall, 2000; Vik, 2001). Future research to test whether training and the development of skills would inspire students to take action and mitigate the impact of distractive, disruptive behaviors on overall team performance, is worthy of academic scrutiny.

CONCLUSION

When thinking about implementing remedies for social loafing in classroom teams, it may be important to consider the potential of students, instructors, and program administrators as implicated by our study. Although students compensate for loafers who slack off and contribute poorly to the collective effort by working harder, they cannot compensate for the loafer's distractive, disruptive behaviors. Although instructors can potentially intervene when loafers act distractive and disrup-

tive, they cannot compensate for poorly designed curriculums that leave students unprepared for effective teamwork. Although program administrators can participate in developing across-the-curriculum courses that teach team-work skills, they cannot unilaterally implement effective solutions for student apathy and disconnectedness. Social loafing is a complex problem; its solutions are perhaps as complex and require collaborative initiatives across campus.

There are many weaknesses of our study: We could have selected a large sample in our exploratory study and survey, picked many instead of one university campus, studied a cross-section of students instead of a homogeneous group of traditional-age residential undergraduates, focused on the links between student perceptions and other variables, such as demographics. We could have conducted an experiment or conducted a longitudinal analysis instead of what we did. While we have taken steps to reduce the impact of common method variance (and discussed how in the Appendix), the study is not immune to the problems it creates. Nevertheless, consistent with our intent, we raise a host of issues that deserve the attention of scholars, given (a) the absence of research on student perception of social loafing; and (b) the high level of interest in team-based teaching and learning in undergraduate business classrooms. The problem of social loafing in classroom teams seems more complex than the literature's view derived from work teams, and largely based on hypotheses-testing studies. In a similar vein, its antecedents in student teams seem rooted in factors that may shape the effectiveness of teaching and learning in undergraduate business classrooms, yet have received virtually no attention from scholars. Confirmatory evidence from a variety of settings, particularly across business disciplines and colleges, are needed before definitive knowledge emerges in this area.

APPENDIX

DETAILS OF MODEL DEVELOPMENT

Scales and Content Validity

Table 1 shows the scales we derived from the qualitative data and used to measure the six constructs of interest (with Cronbach alpha coefficients as reliability measures). All scales are new and developed using the multistage approach that is consistent with Churchill (1979) and Gerbing and Anderson (1988). The case for face validity for our scales is made by the use of itemized rating and Likert scales. The case for content validity is rooted in the following. First, the source for scale development was the data generated through focus groups wherein students freely discussed the issues related to social loafing. Second, the *information redundancy* across the multiple transcripts of class discussion and student/instructor notes indicated that we captured most of the elements that are important for this phenomenon. These iterative procedures also helped us identify irrelevant, confusing, or conceptually overlapping items and "purify" scales. After a satisfactory conclusion on the item pools and finalization of the instrument, the researchers reviewed the final instrument for comprehensiveness, question clarity, questionnaire format, appearance, and the flow of questions.

Model Development

We derived the model using the following procedure. First, we conducted an exploratory factor analysis to check whether the items for each scale were loading on their hypothesized constructs. We want to reemphasize here that our grounded theory provided us the context for interpreting the mathematical results of EFA. While most items loaded cleanly on their expected factors during the exploratory factor analyses, the cross-loadings were assessed using the following criteria: (a) item-to-total correlation, and (b) the content of the item. A decision was made to eliminate or retain the item (e.g., Churchill, 1979). We also calculated coefficient alphas for each of the scales (see Table 1). While alphas for two of the scales have acceptable values of at least 0.7 (Nunnally, 1978), we want to mention that three remaining scales have alphas slightly lower. While this can be a limitation of this study and may advise us to exercise caution while interpreting its results, it is not uncommon to have constructs with alphas below the 0.7 level in published studies, especially when new scales are being developed (e.g., see Moorman, 1995; Moorman & Miner, 1997).

Next, we conducted two confirmatory factor analyses (CFAs)—first to assess unidimensionality of scales (e.g., Gerbing & Anderson, 1988) and second to assess our data-derived notion that social loafing is a second-order construct because our qualitative data suggested that student perceptions of social loafing referred to more than "slacking off," and that it included poor quality work and distractive, disruptive behaviors as well. We used EQS to do the CFA—specifically we utilized the elliptical solution (ERLS) because it enhances the ability to estimate the model even when the data are nonnormal (Bentler, 2004). The results of the first CFA showed that all items load significantly on their hypothesized constructs. Further, our goodness of fit indices have acceptable values: χ^2 (df) = 513.935(194); BNFI = 0.910; BNNFI = 0.930; CFI = 0.941; RMSEA = 0.06; thus indicating the unidimensionality of scales. The second order CFA for the social-loafing construct also had acceptable fit indices and factor loadings as discussed earlier. It helped us confirm our data-derived notion that social loafing is a second-order construct.

Third, to assess discriminant validity of the constructs, we performed CFAs with the 2-step nested model approach using ESQ (see Gerbing & Anderson, 1988). Briefly, in the first step, the measurement items are allowed to load on their theorized factor/theorized construct/hypothesized construct while the factors are allowed to covary. In the second step, the covariance between the two factors is set to one. Discriminant validity is established by assessing the difference between the χ^2 of the free covariance model and that of the constrained model. A significant $\Delta\chi^2$ indicates discriminant validity. We compared all construct pairs using the above 2-step process and the discriminant validity of each construct was established.

Fourth, having established the reliability and validity of our scales, we used the EQS software to test the hypothesized model; specifically the elliptically re-weighted least square (ERLS) method offered by EQS to test the presence of relationships among various constructs was utilized. The ERLS method assumes a multivariate elliptical distribution that is a more generalized form of the multivariate normal distribution assumed by the commonly used maximum likelihood (ML) method (Tippins & Sohi, 2003). According to Sharma, Durvasula, and Dillon (1989: 220), "the performance of ERLS is equivalent to that of ML for normal data and superior to that of other estimation techniques for non-normal data." As important, we analyzed the structural and path model simultaneously. This provides a rigorous estimation of the model under consideration.

Addressing Issues of Common Method Variance

Because we did not independently assess the extent of social loafing in the team, one may argue that our study could be affected by common methods variance—although we took several steps to minimize its impact. For instance, Podsakoff, MacKensie, and Podsakoff (2003) suggest a number of procedural and statistical remedies to control for the common method variance. The key to controlling method variance through procedural remedies is to identify what the measures of the predictor and criterion variables have in common and eliminate or minimize it through the design of the study. Consistent with Podsakoff et al. (2003), we employed the following procedural remedies: We (a) protected respondent anonymity and reduced evaluation apprehension; (b) urged the respondents to answer questions as honestly as possible to reduce their evaluation apprehension and make them less likely to edit their responses to be more socially desirable, lenient, acquiescent, and consistent; (c) tried to reduce method biases through the careful construction of the items themselves, and made sure that the items were not ambiguous, unfamiliar, difficult to understand, or unspecific and verbose.

We used two additional remedies suggested by Podsakoff et al. (2003) to address the common methods variance issue. First, we used Harman's single-factor test to ensure that our results are not unduly hampered by the common method bias. This test is widely used and has been employed in published studies (e.g., Menon et al., 1999). When using this technique, one loads all of the variables in the study into an exploratory factor analysis and examines the un-rotated factor solution to determine the number of factors that are necessary to account for the variance in the variables. The basic assumption of this technique is that if a substantial amount of common method variance is present, either (a) a single factor will emerge from the factor analysis; or (b) one general factor will account for the majority of the covariance among the measures. More recently, some researchers using this technique have used confirmatory factor analysis (CFA) as a more sophisticated test of the hypothesis that a single factor can account for all of the variance in their data. Our results of the Harman's single-factor test indicated that there is no common method bias.

Keeping in mind the weaknesses associated with Harman's test, we used an additional statistical procedure suggested by Podsakoff et al. (2003) to check for the common methods variance. This procedure involves controlling for the effects of an unmeasured latent methods factor. Specifically, we tested a multifactor measurement model and also a measurement model with an additional method factor. Results of these analyses indicated that while the method factor did improve the model fit, it accounted for only a small portion (14%) of the total variance, which is less than the method variance (25%) observed by Williams, Cote, and Buckley (1989; also see Carlson & Perrewe, 1999; Carlson & Kacmar, 2000). The results of this test further confirmed that common method variance is not a problem in this study. We want to point out that all the remedies that Podsakoff et al. (2003) suggest have potential problems, and controlling for the latent effects of an unmeasured latent factor is no exception. Specifically, the second remedy we used suffers from problems such as (a) it does not allow the researcher to identify the specific cause of the method variance; (b) it assumes that the method factor does not interact with the predictor and criterion constructs; and (c) including a method factor may create identification problems. Nonetheless, given the fact that (a) we would not be able to go back and incorporate many of the proactive solutions that can be used at the data collection stage; and (b) the technique we chose to use has extensively been used in the literature (Williams, Cote, & Buckley, 1989; Carlson & Perrewe, 1999; Carlson & Kacmar, 2000), we believe that results of the above two procedures help us argue that common methods variance is not a problem in this study.

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