Attributional Analysis of Course Evaluation: Attributional Disagreement between Students and Professors

授予評価の帰属分析
—教員・学生間における帰属的相違に関する考察—

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Abstract

This study looks at a potential attributional discrepancy between students and professors concerning outcome of course evaluation. The experiment revealed that when ascribing responsibility for hypothetical professors’ achievement, student and professor participants unanimously attribute the cause of success to students and failure to professors in general. However, based on a professor’s high effort or high ability, both student and professor participants attribute the cause of course evaluation outcomes differently.

The atmosphere in a classroom changes depending upon the relationship between students and teacher. Particularly, how students and teachers ascribe a cause of students’ outcome (i.e., success or failure of their exam) is a critical issue in academia. Juvonen (1988) reported that there was a significant student-teacher difference regarding causal perceptions and evaluation of students’ outcome and that such an incongruity in attribution may cause interpersonal conflicts. A few studies have examined various effects of attribution in relation to students’ performance outcome (e.g., Beckman, 1970; Brandt, Hayden, & Brophy, 1975; Ames, 1975; Beckman, 1973).
Yet, evaluation of “students’ performance” is not the only source of student-teacher conflicts; evaluation of “teachers’ performance” (i.e., course evaluation by students) may also be a crucial factor that could potentially jeopardize quality of the student-teacher relationship. What if students and professors attribute the cause of course evaluation outcome differently? When a class is tedious, students may ascribe such ennui to teachers’ lack of ability while teachers may seek an explanation based on lack of students’ motivation. Blaming neither helps improve the class nor their relationship. The present study, therefore, examines a potential attributional discrepancy between students and professors concerning the outcome of course evaluation.

Theories of Attribution

Historically, attribution research has been approached from two perspectives: the antecedents perspective and the consequences perspective. The former approach focuses on various antecedents of attribution and investigates under what conditions people are more likely to make a certain attribution (Kelley & Michela, 1980). According to Wong and Weiner (1981), individuals are especially motivated to find underlying causes of negative, unexpected, and important events. Once people take part in this causal search, their attribution, either an entity attribution or a person attribution, will be determined based on various antecedent factors (Kelley, 1967). For example, if a student, Jeff, recommends a particular class to his friend, Seiji, and Seiji must decide whether to take the class, he needs to determine whether the class (the entity) is good or if it is something about Jeff (the person) that makes it good. If Seiji knows that Jeff recommends some classes but not others (high distinctiveness) and that other people also recommend the same class (high consensus), then Seiji may conclude that it is something about the class (the entity) that is good. On the other hand, if Jeff recommends a class (low distinctiveness) and other people do not like the class (low consensus), the assumption may be that it is something about Jeff (the person) that makes the class good. These antecedent conditions are central to attribution theories.

Contrary to these theories, Weiner (1985) has established an attributional theory, focusing on various consequences of attribution to explain what types of emotional and behavioral reactions are likely to follow given a certain causal attribution.

Weiner argued that any given cause for any given event could be analyzed based on the following three dimensions: locus, the extent to which the cause is internal or external to the individual; stability, the extent to which the cause remains stable or unstable; and controllability, the extent to which the cause is controllable or uncontrollable by the individual (Weiner, 1979, 1985, 1995). For example, some students may attribute failure on their exams to their physical conditions on the day of the test, which is internal (personal cause) unstable (only that day), and uncontrollable (their physical conditions were out of control). Others may attribute it to their friends who failed to help them, which is external (impersonal cause), unstable (only this time), and controllable (the friends could have helped).

Furthermore, Weiner (1995) expanded this already robust attributional theory to include responsibility judgments for given events. When an event occurs, in order to assign responsibility, individuals seek a reasonable
cause following three steps: first, whether the cause is personal or impersonal; second, whether the cause is controllable or uncontrollable; third, whether or not there are mitigating circumstances. Mitigating circumstances are conditions that soften or alleviate the actor's responsibility primarily because the action serves a higher moral goal or the actor was a child or mentally unfit (Weiner, 1995). Depending on these factors, certain emotional and behavioral reactions will be determined. Given personal causality, for example, if the cause of an event is controllable, such as lack of motivation or effort, and there is no mitigating circumstance, the actor is held responsible; hence, observers are more likely to feel anger, which evokes punishment. On the other hand, if the cause of a negative event is uncontrollable, such as lack of ability, the actor is not responsible. In this case, observers tend to feel sympathy, which elicits prosocial behaviors, such as help and support. Weiner (1995) summarized these two typical sequences from an event to a reaction as follows:

1) Negative event → causal search → personal and controllable cause → responsibility (no mitigating circumstances) → anger, no sympathy → punishment

2) Negative event → causal search → personal and uncontrollable cause → no responsibility → sympathy, no anger → help

Although there might be an impersonal cause or mitigating circumstances that alleviate or remove personal responsibility, a controllability dimension of causality plays a significant role in responsibility judgments. Thus, the particular focus of this study will be on causal controllability.

**Attribution and Achievement Evaluation**

Weiner and Kukla (1970) have shown that achievement evaluations reflect people's responsibility judgment as described above. They explored what evaluative feedback teachers would give to their students, given the information about those students' abilities (uncontrollable cause), effort expenditures (controllable cause), and outcomes (event). The results indicated that failure due to low effort is evaluated more negatively than failure due to low ability, while success due to high effort is evaluated more positively than success due to high ability. This follows perfectly the sequence explained above. Overall, those who have low ability, try hard, and are successful, are most highly praised while those who have high ability, do not try, and fail, are punished the most (Weiner & Kukla, 1970). Their study implies that teachers' causal attribution has a considerable impact upon their evaluative judgments.

Such evaluative judgments, in turn, influence students' achievement motivation. According to the study by Oren (1983), specific individual feedback that reflects students' effort and progress in the classroom would stimulate students to take more personal responsibility for their achievement outcomes. On the other hand, if success attained by hard work was evaluated equally as success attained by pure luck, those hard workers could potentially lose motivation to invest effort. Instead, they may be inclined to value success with minimum effort, which hinders their intrinsic motivation. It has been argued that individuals who believe successful outcomes can be produced by their own behavior would tend to continuously seek to achieve higher or additional goals (Lea, 1976). In contrast, those who believe that their
behavior has nothing to do with their achievement outcomes, and deny personal responsibility, will cease to put forth effort to achieve any goal. By the same token, it can be speculated that students' evaluations of teachers' performance would affect teachers' achievement motivation (i.e., motivation to improve their classes) in ways similar to the effect teachers' evaluations have on students' achievement motivation.

In sum, the association between individuals' attribution and achievement evaluation can be explained in the following cycle based on Weiner's model:

\[
\text{Performer: performance} \rightarrow \text{achievement motivation} \downarrow \rightarrow \text{Evaluator: responsibility judgment} \rightarrow \text{emotional reaction} \rightarrow \text{evaluative feedback}
\]

**Potential Sources of Conflict**

Within this sequence, the attributional disagreements mentioned earlier could potentially take place when making responsibility judgments. In other words, given the same outcome, individuals make different attributions and assign responsibility accordingly. For example, given failure on an exam, some students may attribute it to a lack of their effort whereas others may attribute it to their teacher's unfair judgment. This is because causal attributions often reflect various cognitive biases. Arkin and Maruyama (1979) found that students who succeeded attributed their performance more internally than did students who failed. When the outcome was failure, students were more likely to seek for a cause in their teacher's performance instead of assuming responsibility for their own outcomes (Freize, 1976). A considerable number of similar findings have indicated that individuals have a self-protective tendency to deny personal responsibility for negative outcomes and a self-enhancing tendency to take responsibility for positive outcomes (Bradley, 1978; Miller & Ross, 1975; Zuckerman, 1979; Mullen & Riodan, 1988; Weiner 1992). This tendency has been referred to as the self-serving bias, and in educational settings it may have a significant impact upon teacher-student relationships (Juvenen, 1988).

**Experiment**

A number of studies have revealed individuals' self-serving attributional pattern in responsibility assignment: yet evidence for this bias appears to be inconsistent (e.g., Duval & Silvia, 2002; Lawson & McKinnon, n.d.; Zuckerman, 1979). While students' self-serving bias has been found consistently across several studies (e.g., Arkin & Maruyama, 1979; McAllister, 1996; Simon & Feather, 1973), much variation has been found for teachers' attributional tendencies. Some studies have indicated that teachers take credit for students' successful outcomes and attribute cause of failure to the students (Beckman, 1970; Brandt, Hayden, & Brophy, 1975; McAllister, 1996). Other studies have found that teachers are more likely to exhibit counterdefensive bias; that is, giving students credit for their success and taking responsibility for their failure (Ames, 1975; Bar-Tal & Guttman, 1981; Beckman, 1973).

In contrast to those studies examining the attributional bias on students' performance, there have been a relatively small number of studies dealing with the attributional bias on professors' performance and examining both student and teacher perspectives in the same experimental paradigm (McAllister, 1996). How do students and teachers perceive causes of
students’ (dis) satisfaction? Do they make attributions differently? The primary purpose of this study is, therefore, to examine attributional biases exhibited by professors and students through their perceived cause of students’ (dis)satisfaction.

In this study, professors and students are asked to what extent the results of the course evaluation (i.e., whether the students are satisfied or dissatisfied with their class) are attributed to students or professors. Different types of professors are hypothesised, a function of the level of their abilities, effort expenditures, and outcomes of a course evaluation. Each of these three sources of performance information has two levels: ability (high or low), effort (high or low), and outcome (success or failure). Thus, there are eight types of hypothetical professors with all possible combinations of these three sources of information (2 levels of ability × 2 levels of effort × 2 levels of outcome). For example, one professor is illustrated as one who has high teaching ability, invests low effort in his/her class, and his/her course evaluation was positive; another professor is illustrated as one who has high ability, invests high effort, but the evaluation was negative.

Professors and students are asked to indicate their assessment of the degree to which the professors or the students should be held responsible for students’ (dis)satisfaction as a function of professors’ abilities, effort expenditures, and outcomes of a course evaluation.

Based on the previous findings, the following hypothesis can be drawn for the student participants:

**Hypothesis 1.** Students are more likely to exhibit self-serving bias: that is, they attribute a cause of professors’ successful outcomes of course evaluations to themselves and failure to the professors.

Although it is quite difficult to hypothesize professors’ attributional bias knowing that the findings have been inconsistent, some studies that employed real teachers can be contributory for drawing a hypothesis (Bar-Tal & Guttman, 1981; Darom & Bar-Tal, 1981). From these studies, it was found that classroom teachers exhibited neither extreme self-serving bias nor extreme counterdefensive bias. Because this present study, too, examines professors’ attribution, the following hypothesis can be drawn for professor participants:

**Hypothesis 2.** Professors are more likely to attribute the cause of the outcome equally between students and themselves.

**Method**

**Participants.** A total of 91 student participants (30 males and 61 females) and 22 professor participants (8 males and 14 females) were recruited at Soka University of America, Aliso Viejo. The response rate for student and professor participants were 69.47% (91/131) and 37.29% (22/59), respectively.

**Design & Material.** The participants were asked to indicate the degree of responsibility for students’ (dis) satisfaction as a function of the following five independent variables: one between-participants factor, (1) perspective (professor vs. students), and four manipulated within-participants factors: (2) a given hypothetical professor's level of ability (high vs. low), (3) his/her level of effort (high vs. low), (4) the outcome of his/her course evaluation (success vs. failure), and (5) the locus of responsibility (me vs. other). Hence, the study employed a $2 \times 2 \times 2 \times 2 \times 2$ (Perspective × Ability × Effort × Outcome × Locus) mixed factorial design. The dependent measure was the degree of per-

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ceived responsibility for students’ (dis) satisfaction given the eight different hypothetical professors measured by a 9-point rating scale (1 = not at all due to me/other, 9 = entirely due to me/other).

At the beginning of the survey, the student participants received the following instruction:

The following experiment includes information about eight different faculty members.

You know whether or not these professors have ability, based on previous reputation and their academic backgrounds. In addition, you have knowledge about how diligent and motivated the professors are, based on their attitudes in and out of the class. At the end of semester, their students gave a course evaluation, and their results showed either that their students were satisfied with their class (success) or that their students were dissatisfied with their class (failure).

Assume that your instructor is each of these professors.

To what extent is the outcome of the course evaluation (i.e., students were satisfied or dissatisfied with their class) due to something about students (fairness of their judgments, their motivation, effort, etc.) or professors (their teaching skills, amount of professional knowledge, personality, etc.)?

Please indicate your answer on a 9-point scale by circling a number in each case.

Each participant then indicated to what extent the outcomes of each professor’s course evaluation are due to something about students or professors. Likewise, the professor participants received the following instruction:

If you were to put yourself in the shoes of each of these professors, to what extent is the outcome of the course evaluation (i.e., students were satisfied or dissatisfied with your teaching) due to something about you (your teaching skills, amount of professional knowledge, personality, etc.) or students (fairness of their judgments, their motivation, effort, etc.)?

Please indicate your answer on a 9-point scale by circling a number in each case.

Each participant then indicated to what extent the results of their course evaluation under each of the eight different conditions are due to something about themselves or students.

Procedure. The study was conducted at Soka University of America, Aliso Viejo during the spring semester, 2005. The electronic copy of the survey was distributed to the randomly selected participants through campus email. Simultaneously, a survey packet, which consisted of a hard copy of the survey, an informed consent form, a self-addressed envelope, and a survey request that briefly explains the purpose and procedure of the study, was distributed as well to the participants’ office (professors) or dorm rooms (students). To return their completed surveys, participants had the following three options: (1) drop off (if students, in the principal investigator’s room in the dorm; if faculty, in the co-investigator’s office); (2) send through campus mail to the principal investigator; (3) complete the surveys electronically and save them in a shared network folder to which only the participants and the principal investigator have access. The surveys and the informed consent forms were returned separately to ensure anonymity.

Results

Initial analyses. Our initial analyses for this
experiment examined how the participants' perceived degree of responsibility for students' (dis) satisfaction, ranging from minimum responsibility 1 to maximum responsibility 9, was determined as a function of the five independent variables (Perspective, Ability, Effort, Outcome, and Locus). Thus, the data were analyzed by a $2 \times 2 \times 2 \times 2 \times 2$ (Perspective $\times$ Ability $\times$ Effort $\times$ Outcome $\times$ Locus) repeated-measures ANOVA to see if there was any significant interaction among these variables. Because this study was designed to examine how students and professors (the Perspective independent variable) assign responsibility (the Locus of Responsibility independent variable) for students’ (dis) satisfaction differently (the Outcome independent variable), if any of these independent variables is missing from any given interaction, such an interaction was disregarded.

There were three significant interactions: a three-way interaction among Perspective, Outcome, and Locus of Responsibility, $F(1,107)=87.115$, $p<.001$; and two four-way interactions, one among Perspective, Effort, Outcome, and Locus of Responsibility, $F(1,107)=130.005$, $p<.001$, and another one among Perspective, Ability, Outcome, Locus of Responsibility, $F(1,107)=51.279$, $p<.001$. Although there were two higher order four-way interactions with Perspective, Outcome, and Locus variables, the three-way interaction mentioned above was examined first to facilitate the interpretation of the other two higher order four-way interactions.

The three-way (Perspective $\times$ Outcome $\times$ Locus) interaction. To explain these interactions, a series of paired samples $t$-tests were performed using the Bonferroni alpha correction to avoid making any Type-I errors in the analysis, and a number of significant effects were found. As shown in Figure 1, regardless of the professor’s ability and effort, students were more likely to attribute their satisfaction to themselves ($M=7.088$, $SE=.118$) than to the professor ($M=6.318$, $SE=.110$), $t(107)=6.766$, $p<.01$, and dissatisfaction to the professor ($M=6.679$, $SE=.132$) than to themselves ($M=5.562$, $SE=.167$), $t(107)=7.476$, $p<.01$. On the other hand, professors were more likely to attribute students’ satisfaction to students ($M=7.332$, $SE=.243$) than to themselves ($M=5.208$, $SE=.260$), $t(107)=-8.445$, $p<.01$, and dissatisfaction to themselves ($M=6.257$, $SE=.368$) than to students ($M=4.733$, $SE=.293$), $t(107)=4.615$, $p<.01$. In other words, students tended to exhibit self-serving bias whereas professors tended to show counterdefensive bias regarding students’ (dis) satisfaction in general. These results, however, should be considered their general tendencies. The following two four-way interactions showed more specific aspects of their attributional trend.

![Figure 1. Degree of responsibility as a function of perspective, outcome, and locus.](image-url)

The first four-way (Perspective $\times$ Effort $\times$ Outcome $\times$ Locus) interaction. In comparison to the three-way interaction explained above, the results suggested that the causes of students’ (dis) satisfaction were attributed differ-
ently as a function of the professors’ level of effort expenditures (see Figure 2a). Given the hypothetical professors’ high effort, students tended to attribute cause of their satisfaction to the professors (M = 8.132, SE = .119) significantly more than to themselves (M = 6.529, SE = .168), t(107) = -11.181, p < .001, and dissatisfaction to themselves (M = 6.692, SE = .156) significantly more than to professors (M = 5.590, SE = 161), t(107) = 6.945, p < .001. In other words, once students learned of their professors’ high efforts, they tended to exhibit counterdefensive bias instead of self-serving bias.

Another difference from the three-way interaction found was that, given the hypothetical professor’s high effort, professor participants were more likely to assign responsibility for students’ satisfaction evenly between students (M = 6.919, SE = .262) and themselves (M = 6.809, SE = .372), t(107) = -.348, p = ns, and dissatisfaction as well was attributed equally between students (M = 5.886, SE = .355) and themselves (M = 5.609, SE = .346), t(107) = -.791, p = ns. In other words, professors tended to attribute equally instead of just giving students credit if professors worked hard.

The second four-way (Perspective × Ability × Outcome × Locus) interaction. Finally, the results revealed that students also attribute their (dis) satisfaction differently given the information about the hypothetical professors’ ability compared to their general trend in attribution (see Figure 3a). Given the hypothetical professor’s high ability, students were more likely to assign responsibility evenly for their satisfaction to the professor (M = 6.855, SE = .130) and to themselves (M = 6.893, SE = .147), t (107) = .270, p = ns, and for dissatisfaction to the professor (M = 6.163, SE = .146) and to themselves (M = 6.000, SE = .167), t(107) = -1.043, p = ns. In other words, students tended to attribute equally instead of showing self-serving bias if they perceived that their professors have high ability.

As the above-mentioned three-way interaction explains, there was a general trend among professors that they exhibited counterdefensive bias. Given the hypothetical professors’ high ability as well, professors tended to exhibit counterdefensive bias at the alpha level of .05, t(107) = 2.034, p < .05. However, after the Bonferroni alpha correction, the results turned out to be statistically insignificant. Therefore, it should be interpreted that professors were more likely to attribute students’ dissatisfaction evenly between students (M = 5.193, SE = .323) and themselves (M = 5.896, SE = .369), t
(107) =2.034, $p=ns$, given the hypothetical professors’ high ability.

**Discussion**

**Summary of findings.** Regardless of the professor’s ability and effort, there was a general consensus among students and professors that boredom with the class is largely due to the professor, whereas success of the class is primarily due to students. The same type of causal attribution was observed when the professor had either a lack of ability or a lack of effort. If the professor’s dedicated endeavor was perceived, however, students tended to credit their professor for success in his/her teaching and took responsibility for the unsatisfactory class. Professors, on the other hand, tended to recognize that students and professors are equally responsible for students’ (dis) satisfaction. If a professor was perceived as highly qualified or capable, both professors and students were more likely to assign responsibility equally between the professor and students whether the students were satisfied or not.

**General trend.** The study suggested that there seemed to be a cognitive agreement between professors and students regarding who should be held responsible for students’ (dis) satisfaction. If the class is boring, the professor is expected to take responsibility, whereas students can take credit for a satisfactory class. Although it is quite natural for people to attribute the causes of a positive event internally and those of a negative event externally, professors tend to feel responsible for students’ learning and their satisfaction. It may be because they understand their job is to create a better learning environment for students, and thus, they are responsible to do so. Students, on the other hand, may exhibit a self-protective tendency with no reservation. Yet, it is very important to understand that both groups of individuals do not necessarily demonstrate two such distinct biases in any given conditions. Once a professor’s certain characteristics (i.e., effort or ability) are recognized, both professors and students assign responsibility differently (i.e., equally to students and professors).

**Impact of high effort.** When students realized that their professor was trying hard or putting much effort into making the class better, they actually credited their professor for success in his/her teaching and took responsibility for the unsatisfactory class. This is in line with the argument put forth by Weiner’s attributional steps regarding responsibility judg-
ment. A professor’s high effort was ascribed as controllable or subject-initiated action for the sake of a better outcome; hence, it mitigated his/her responsibility for failure, and it was perceived as a cause that made a successful class possible. Because sympathy was more likely to be drawn from such psychological processes, students tended to take responsibility for a negative outcome instead of blaming the professor and praise him/her for a positive outcome.

Professors, who tended to admit that they are responsible for boredom in the classroom and praise students’ hard work for a successful class, were inclined to perceive shared responsibilities regardless of the consequences. Furthermore, because professors also recognized that putting in effort is praise-worthy, they credited not only students, but also themselves for a positive outcome and lessened their own responsibility for a negative outcome. Nevertheless, they might not fully ascribe a boring class to their students just because they tried hard; they still felt responsibility for any situation in a classroom.

**Impact of high ability.** The level of professor’s effort expenditure was not the only factor that could contribute to alleviating their attributional biases (i.e., self-serving bias and counter-defensive bias). Individuals’ perception of professors’ ability might also influence how professors and students attributed students’ (dis) satisfaction. If students knew that their professor is highly capable, they did not differentiate responsibilities of the two groups involved whether the class was successful or not. Though they tended to credit themselves for a positive outcome, they equally praised their professor for his/her ability that made it possible. If students were dissatisfied despite the professor’s high ability, those students might have perceived potential causes within and felt somewhat responsible. Moreover, because ability is a stable characteristic, students might have attributed their dissatisfaction to bad luck, such as the nature of the subject itself, and hoped for the professor to realize his/her potential next time. Although it was not as clear as students’ case in the results, professors also exhibited the similar trend for probably the same reasons.

**Further research.** According to the findings explained above, the current attributional tendencies of professors and students may not trigger a dispute as long as students earnestly study and try to meet their professors’ expectations. However, once students lose interest in studying and disappoint their professors, those professors may attribute the causes of students’ (dis) satisfaction differently. Thus, future research can be designed to see how professors’ causal attributions of students’ (dis) satisfaction, or professors’ outcomes, differ according to students’ motivation or effort expenditure. This will be discussed in greater detail below.

**General Discussion**

The present study examined a potential attributional discrepancy between students and professors concerning the outcomes of a course evaluation. It may threaten the quality of their relationships in the classroom. Overall, the results of the present experiment revealed that there was no such conflict between students and professors. When ascribing responsibility for professors’ achievement, students and professors unanimously attributed the cause of success to students and failure to professors in general. One way of seeing this effect is that
the school, Soka University of America, in which the present study was conducted, successfully embodies its value, “student-centeredness,” in the professors’ perceptions. Although apparent disagreement was not found, the present study suggested wide-ranging attributional effects of professors’ motivation or effort expenditures that could potentially trigger undesirable conflicts in the classroom.

**Effects of Professors’ Efforts**

The following attributional sequences were drawn, based on Weiner's (1995) theory and the results from the present experiment, to illustrate how students may respond cognitively, emotionally, and behaviorally to the professors’ achievement outcomes given a level of effort that the professor invested.

When a professor invests high effort that results in his/her success, students are likely to give credit to his/her high efforts and experience positive emotions, which in turn, lead students to praise their professor:

1) Success (e.g. high course evaluation) given high effort→Professor’s credit→Students’ positive emotion→Praise (e.g. positive feedback) /Prosocial reaction to the professor (e.g. students’ more efforts)

This same process can also be found during the semester when course evaluation has not yet taken place. When a professor tried his/her best and students are satisfied with his/her teaching, then they credit the professor for their satisfaction and experience positive emotions. As a result, the students exercise prosocial reactions that may give their professor's contentment, such as investing high effort in their work during the semester.

When students are not satisfied with their class despite their professor’s high effort, the students take responsibility for the unsatisfactory class and feel shame or guilt. Such emotional reactions may motivate them to work hard:

2) Failure (e.g. low course evaluation) given high effort→Students’ responsibility→Students’ feeling of shame/guilt→Students’ high efforts

If a successful outcome of a course evaluation was attained or students are satisfied with their class without much professor effort, the students take credit for the success and do not feel much positive emotion toward the professor. Thus, neither praise nor high effort may be given to the professor:

3) Success (e.g. high course evaluation) given low effort→Students’ credit→Students’ less positive emotion→Less praise/Less prosocial reaction

Finally, when a professor failed on his/her course evaluation or failed to meet his/her students’ expectations due to a lack of effort, the students attribute it to the professor and feel anger. Therefore, they give negative feedback or take retaliative actions, such as not doing homework or intentionally coming to the class late:

4) Failure (e.g. low course evaluation) given low effort→Professor’s responsibility→Students’ feeling of anger/no sympathy→Punishment (e.g. negative feedback) /Retaliative reaction (e.g. students’ less efforts)
As explained above, a professor’s low effort, especially given failure or students’ dissatisfaction, may cause the loss of students’ achievement motivation whereas the professor’s high effort may arouse students’ motivation regardless of the professor’s achievement. Thus, a professor’s motivation or effort expenditure has considerable impact upon students’ achievement motivation during the semester.

Despite their tendencies to credit students for successful outcomes of the course evaluation and take responsibility for failure, professors may attribute a cause of their achievements differently when they perceive their students’ lack of effort. For example, if students paid no attention during the class or frequently failed to finish their homework, how would their professor attribute their course evaluations? Would he/she still accept the results and take full responsibility for their dissatisfaction? It can be imagined that the professor may start attributing a cause of the failure (students’ dissatisfaction or low course evaluation) to the students who are not motivated to learn while the students assign responsibility to the professor. If this were the case, student-teacher conflicts come into being out of mutual self-serving bias regarding students’ dissatisfaction or the outcome of course evaluation.

As the above sequence (number 4) indicates, professor’s lack of motivation could cause the loss of students’ motivation, which, in turn, may facilitate mutual self-serving bias. Given professor’s high motivation, on the other hand, students are likely to spend more effort regardless of the professor’s achievement outcome. In sum, the professor’s lack of motivation may potentially trigger conflicts between students and the professor whereas the professor’s high motivation, by contrast, has a positive impact in the classroom environment.

Limitations

Some of the limitations of the present study lie in the participants’ characteristics, namely, the number of participants, diversity among the participants, and the response rate. Those limitations should prevent the findings from being overgeneralized. First of all, the number of participants was limited (91 students and 22 professors). Particularly the lack of enough professor participants prevents the findings from being generalized to a larger population. Thus, a larger number of participants for both groups are desirable for future research. Moreover, the surveys were collected only from a particular college campus (Soka University of America) with unique characteristics. Some such characteristics include, but are not limited to, newness (founded in 2001) , small population (about 400 students with 9-1 student-faculty ratio), cultural diversity (about 50% of the students are international), and the school values (founded on Buddhist principles). Those characteristics may have influenced the output. Diverse participants from other college campuses and/or other countries may help increase its generalizability. Finally, and probably most significantly, the professors’ response rate was quite low (37.29%). Though the overall results indicated professors’ counterdefensive attribution concerning their achievement, it would be more appropriate to state that such an attributional trend was present only among a handful of professors who actually participated in the experiment. Their participation itself implies that they were willing to support students’ research projects, and thus the findings reflected the student-centered value.

There was another source that might have
confounded the present results, that is, an instructional difference between the previous study (i.e., Weiner & Kukla, 1970) and the present one. In the Weiner & Kukla study, the participants role-played as teachers and were placed in a situation where they must convey some feedback (praise or punishment) to the students. The seriousness of consequences of the feedback that a teacher gives directly to the students is certainly different from that of the feedback that people give to the teacher because the latter could potentially determine his/her job security. Because participants’ feedback was assumed to be anonymous in the present study, the participants may have conveyed more honest feelings than in the previous study. On the other hand, because consequences of faculty evaluations are more severe than that student evaluations, the participants in the present study might have hesitated to give negative feedback to the teachers. These possible differences should prevent the empirical disagreement between the past and the present study from being overgeneralized.

Further research

At the beginning of this section, how teachers’ efforts influence students’ achievement motivation and how their motivation could potentially affect teachers’ causal attribution were explained based on Weiner’s (1995) theory and the present findings. However, the latter part of the argument, which is the impact of students’ motivation upon teachers’ causal attribution of their achievement, has not been empirically supported. If a significant interaction is found, it will be another valuable source of information that could provide a stronger inference on the following attributional interactive cycle between students and a professor (upper level represents professor’s attributional sequence whereas lower level represents students):

Professor: motivation/performance→emotional reaction→responsibility judgment

Students: responsibility judgment→emotional reaction→motivation/performance

In accordance with a professor’s motivation and/or performance, students assign responsibility of a professor’s achievement outcome. Their responsibility judgment causes them to experience a certain emotional reaction, which in turn affects students’ motivation as their behavioral reaction. Based on students’ motivation, a professor also assigns responsibility of students’ outcome, which causes him/her to experience a certain emotional reaction. Such an emotion determines his/her motivation and/or performance.

The present study revealed a significant linkage between a professor’s motivation and students’ responsibility judgment, and thus further study may examine a link between students’ motivation and a professor’s responsibility judgment. If the above cycle is legitimate, it can be inferred that professors can create either a vicious cycle or a virtuous cycle by altering the amount of their effort. If a professor is highly motivated and tries his/her best to teach students, the students credit the professor and experience positive emotions toward the professor. As a result, the students invest effort in their work, which in turn may enhance the professor’s achievement motivation. On the other hand, a professor’s lack of effort may result in students’ negative feedback, which may induce the students’ disobedient behaviors. Witnessing these undesirable behaviors, the professor loses motivation even further which
creates a vicious cycle. However, both students and professors hold equal influence in their classroom environment and can transform it either in a positive or negative way.

It is still unknown what could be found if the same experiment were conducted at Soka University in Tokyo. Nevertheless a similar general trend, which is a state of no-conflict between students and teacher, are expected to be found because Soka University has valued “student-centeredness” as well since its opening.

Empirical findings that support the above hypotheses are awaited.

References
Leftcourt, H. M. (1976). *Locus of control: Cur-


