

## **Attributions of Controllability and Helping Intentions among Students: Moderating Effects of Certain Characteristics of the Helper**

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### **Abstract**

Previous studies have shown that individual and social factors can moderate the relationship between attributions of controllability, emotions, and helping. The aim of this study was to test the attribution-emotion-helping relationship in the Croatian academic context and to investigate the moderating effects of some student variables, i.e., the helper's academic field, personal absence from class, and the habit of taking notes in class. We conducted a survey experiment with vignettes describing a student who wants to borrow lecture notes. Participants also estimated how often they take lecture notes and how often they had skipped class in the previous semester. The data were collected from 298 students from three faculties of the University of Zagreb. Although Croatian students generally showed a high willingness to help a classmate in need and the effect of controllability on helping intentions was weak, the results supported the attribution-emotion model. However, the results suggest that some student characteristics may attenuate the relationship between controllability, emotions, and helping. The indirect effect of controllability on helping intentions through sympathy was weaker for participants who frequently skipped classes and rarely had their own lecture notes.

*Keywords:* attributions of controllability, helping intentions, students, student characteristics

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### **Introduction**

Prosocial behaviour is of great importance both for the individual and for society. It is, therefore, not surprising that its development is promoted not only in

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the family, but also in school. However, school can also promote competitive behaviour and thus negatively influence students' helping behaviour. In this study, we investigated which factors influence the willingness to help in an academic context.

According to attribution theorists, the decision to help another person is influenced by the cause of the target's need for help (Weiner, 1991). The most comprehensive analysis of the attributional and emotional determinants of helping behaviour was conducted by Weiner (1980a, 1980b), which resulted in the attribution-emotion model that is still widely used to explain helping behaviour. Weiner (1985) postulated that all causes can be classified based on three dimensions of causality: locus (internal vs. external), stability (stable vs. variable over time), and controllability (controllable vs. uncontrollable). It is these underlying properties of causes that determine the various psychological consequences. Research by Weiner (1980a, 1980b) has shown that judgements of willingness to help depend primarily on the controllability of the cause of the help needed. People are more willing to help when a cause is perceived as personally uncontrollable rather than controllable. In the latter case, people tend to blame the person in need of help for their misfortune and are therefore less willing to provide help. It has also been shown that the influence of controllability on helping behaviour is indirect. Emotions of sympathy and anger that are elicited by attribution analysis mediate the effect of controllability on helping. The less controllable the cause of a need for help, the more sympathy and less anger people feel, which in turn leads to a higher likelihood of helping. The more controllable the cause of a need for help, the more anger and less sympathy people feel, which in turn inhibits the decision to help (Weiner, 1985).

Many studies have supported the attribution-emotion model of helping behaviour in various contexts (e.g., Badahdah & Alkhder, 2006; Caprara et al., 1997; Greitemeyer & Rudolph, 2003; Mackay & Barrowclough, 2005; Meyer & Mulherin, 1980; Zhang et al., 2007), including academic contexts (e.g., Reizenzein, 1986; Schmidt & Weiner, 1988; Weiner, 1980b). However, some studies have indicated cultural and individual variations. For example, the strength of relationships within the model has been shown to vary across cultures (for a review, see Rudolph et al., 2004). Mullen and Skitka (2009) found that the perception of personal responsibility had a weaker effect on helping judgements in collectivistic than in individualistic cultures, and Pilati et al. (2015) showed that controllability did not affect sympathy arousal in all Brazilian subcultures. Because collectivistic societies value interdependence, cooperation, and concern for one's group, while individualistic societies strongly endorse the values of independence and personal responsibility for one's own behaviour and well-being (for a review, see Triandis, 1995), perceived personal controllability might be more important for individualists than for collectivists when deciding whom to help.

As for individual differences, Schwartz and Fleishman (1978) have shown that a sense of personal obligation to help can moderate the effect of controllability on

helping behaviour, with controllability of the cause of the help needed only affecting the helping judgements of those who do not have strong personal norms guiding their behaviour. In a study by Higgins and Shaw (1999), controllability was found to influence the helping behaviour of individuals with a non-supportive attributional style (who tend to view others' need for help as controllable), while individuals with a supportive style (who tend to view others' need for help as uncontrollable) were willing to help regardless of the controllability of the cause. Although these results seem to question the generality of the model, attribution-emotion theory can incorporate individual and cultural differences as moderators (see Reizenzein, 2015; Weiner, 2006). The variables that may moderate the relationship between attributions, emotions, and the decision to help are less researched.

To our knowledge, Weiner's (1985) attribution-emotion model of helping behaviour has not yet been tested in the Croatian academic context. In the present study, we replicated Weiner's (1980b) classic study of lending class notes as a helping situation between students. Lending class notes to other students may be considered inappropriate academic behaviour in some cultures, but in Croatia it is a common practice and students often rely on each other for help. Moreover, several studies have shown that Croatian students have positive attitudes towards academic cheating and often engage in this behaviour (e.g., Kukulja Taradi et al., 2012; Petrak & Bartolac, 2014). Because cheating is widely accepted among the student body, their judgements on various student behaviours may be less influenced by the legitimacy of the actions. In other words, these values could have a positive effect on students' willingness to help their classmates, but also weaken the effect of controllability on their decision to help, which raises the question of the generalisability of previous findings.

In addition, previous studies have indicated that individual factors may moderate the relationships between variables in the attribution-emotion model. Which particular variables interact with the variables within the model may depend on the specific helping situation (Reizenzein, 2015) and/or the population studied. Therefore, this study focused on possible moderating effects of some of the helper's characteristics. Specifically, we selected three student variables: participants' academic field, personal absence from class, and habit of taking notes in class. To our knowledge, these variables have not yet been tested within the model. Since some study programmes are more people-oriented and prepare students for helping professions, while others are more technical or science-oriented, students from different academic disciplines might differ in their inclination to help. In addition, some faculties use normative assessment of students, while others use criterion-referenced assessment. Normative assessment is often criticised for encouraging competition among students. In this situation, sharing course materials with classmates can put students in a disadvantageous position because it can jeopardise their own success. Thus, one might assume that normative grading could inhibit students' helping behaviour. However, Bell et al. (1995) found that willingness to

help a classmate who had missed class was high even with normative grading, although it could vary depending on the type of help needed. For example, they found a lower willingness to tutor the classmate the night before the exam, but other types of help, such as lending class notes, were not reduced. In addition, Bell et al. (1995) found that students with the highest absenteeism rates were more willing to lend their notes and tutor a classmate who had been absent from class than students with low absenteeism rates. One possible explanation is perceived similarity to the classmate who needs help. The effect of similarity on helping has been found in numerous studies, using different manipulations and dependent variables (for a review, see Dovidio, 1984). The relationship between similarity and helping can be derived from various theories, such as the arousal: cost-reward model (Piliavin et al., 1981) and the empathy-altruism hypothesis (Batson et al., 1981). Perceived similarity may also interact with variables within the attribution-emotion model. For example, a study by Grubb and Harrower (2009) showed that high perceived personal victim similarity correlated negatively with victim blaming. Potential helpers who identify with the person in need may therefore be more willing to help, regardless of the cause of the need.

The aim of the present study was twofold: 1) to examine the influence of controllability of the cause of the help needed on emotions towards the person seeking help and intentions to help in the Croatian academic context, and 2) to examine the possible moderating effects of some student variables (the helper's academic field, absence from class, and habit of taking notes in class) on the relationship between controllability, emotions, and intentions to help. We hypothesised that sympathy for the classmate and the likelihood of helping them would be higher, while anger towards the classmate would be lower in the uncontrollable-cause condition than in the controllable-cause condition (Hypothesis 1). The controllability of the cause of the help needed would have an indirect effect on helping decisions through the emotions of sympathy and anger. That is, controllability would have a positive effect on anger and a negative effect on sympathy, while anger would have a negative effect and sympathy would have a positive effect on the likelihood of helping (Hypothesis 2). Further, we hypothesised that psychology students would show the highest willingness to help a fellow student, while engineering students attending faculty with normative student assessment would show the lowest willingness to help. We expected that the effect of controllability on emotions and its indirect effect on helping decisions would be attenuated in both groups (Hypothesis 3). In other words, psychology students would be more willing to help, and engineering students attending faculty with normative student assessment would be less willing to help, regardless of the controllability of the cause of the help needed. We also hypothesised that students with high absenteeism would be more willing to help than students with low or moderate absenteeism, and that the effects of controllability on emotions and helping decisions would be attenuated in this group (Hypothesis 4). In addition, students who rarely take lecture notes would be more willing to help a fellow student than students who

frequently take lecture notes, and their emotions and helping decisions would be less influenced by controllability of the cause of the help needed (Hypothesis 5).

## Method

### Participants

The participants were 298 (63% male) first-year undergraduate students enrolled in three faculties at the University of Zagreb. We selected three faculties that differ in terms of academic fields and student assessment procedures. We sampled students from the Faculty of Electrical Engineering and Computing ( $N = 105$ ), as this is the one faculty at the University of Zagreb that used normative student assessment (based on the curve). In addition, we recruited another group of electrical engineering students from the Polytechnics of Zagreb ( $N = 113$ ), a similar faculty that differs only in the type of student assessment (criterion-referenced). These faculties offer similar study programmes and attract similar types of students, so we were able to compare the results of the two groups to examine whether normative assessment affects helping behaviour among students. Finally, to compare engineering students with students in the helping profession, we also sampled a group of students enrolled in the Psychology programme at the Faculty of Humanities and Social Sciences, a faculty with criterion-referenced student assessment ( $N = 80$ ). Only students who were present in class on the day of data collection participated in the study. The mean age of the participants was  $M = 19.56$  years ( $SD = 0.91$ ).

### Experimental Stimuli

We conducted a survey experiment using vignettes as experimental stimuli. We used two scenarios, “eye with a patch” and “beach”, adapted from Weiner (1980b; see Experiment 1 for a review). The two scenarios describe a student who wants to borrow lecture notes and differ only in the reason why he needs the notes (controllable vs. uncontrollable). To make the “beach” scenario more appropriate for our geographical region, the original reason for skipping class was changed to „skipping class after staying out late the night before” (see Appendix). The scenarios were adapted and translated into Croatian. Each participant was presented with only one of the two scenarios, creating two experimental conditions: controllable- and uncontrollable-cause condition.

### Measures

After each scenario, participants rated: 1) the extent to which the cause of the help needed was perceived as personally controllable (anchored by *not under personal control* – *under personal control*), 2) their feelings of sympathy (*none* – *a*

*great deal*), 3) their feelings of anger (*none – a great deal*), and 4) their likelihood of helping, i.e., lending notes (*would definitely not help – would definitely help*). The scales were divided into nine equal intervals, with higher numbers indicating higher levels of perceived controllability, emotions, and likelihood to help. There were four random orders of the four scales.

At the end of the questionnaire, participants provided their demographic details, consisting of age, gender and the name of the faculty they attend. They estimated how often they had been absent from class in the past semester by choosing one of the following answers: *zero absences*, *one to five*, *six to ten*, *eleven to fifteen* or *more than fifteen absences*, and how often they generally take notes in class: *never*, *sometimes*, *often* or *always*.

## Procedure

Data were collected at three faculties of the University of Zagreb. Participants were tested during their regular lectures in groups of 30 to 50 students. They were randomly assigned to one of the two experimental conditions and given a paper-and-pencil questionnaire to complete along with brief instructions. To ensure that the experimental manipulation had an effect, we did not reveal the true purpose of the study to the participants. The order of the materials was the same for all participants. First, they read the scenario about a student who wants to borrow lecture notes and responded to four questions as if the described event was happening at that exact moment. They were specifically instructed to imagine that they had attended the lecture mentioned and possessed the notes, even if they did not normally take notes in class. In the second part of the questionnaire, they provided their demographic details and estimated how often they skip classes and take notes. After completing and returning the questionnaire, the participants were verbally debriefed and informed about the true purpose of the study. Participation in the study was voluntary and participants received no compensation.

## Data Analysis

The distributions of the results showed minor deviations from a normal distribution. On the anger variable, three cases had scores outside the range of  $\pm 3$  standard deviations, but they were retained because their removal did not significantly change the results. One case with a Mahalanobis distance greater than the cut-off value of  $\chi^2(3) = 16.27$  ( $p < .001$ ) was identified as a multivariate outlier and excluded from further analyses. Because parametric tests showed robustness to these deviations when the sample size was large (Tabachnick & Fidell, 2013), the data were analysed using parametric procedures (robust estimators were used where possible). Mediation and multigroup analyses were conducted in Mplus 8.6 (Muthén & Muthén, 1998-2017). As the multivariate normality assumption was not met, we used the maximum likelihood estimator with robust standard errors (MLR) and the

full information maximum likelihood (FIML) was used to handle the small percentage (< 0.20%) of missing data.

## Results

### Manipulation Check and Controllability Effects

To check whether the manipulation was successful, we first tested the difference in ratings of perceived controllability between the two causal conditions. The results showed that the mean perceived controllability of the reason for needing lecture notes (see Table 1) was significantly greater in the controllable-cause condition ( $F(1, 295) = 176.51, p < .001, \eta_p^2 = .37$ ) than in the uncontrollable-cause condition. Table 1 also shows the mean ratings for sympathy, anger, and the likelihood of lending notes in the two causal conditions. We found significant differences between the two conditions for all three variables (Welch's  $F_{\text{sympathy}}(1, 284.74) = 105.77, p < .001, \eta_p^2 = .27$ ; Welch's  $F_{\text{anger}}(1, 242.17) = 25.49, p < .001, \eta_p^2 = .08$ ; Welch's  $F_{\text{help}}(1, 259.94) = 23.89, p < .001, \eta_p^2 = .08$ ). Sympathy and the likelihood of lending notes were greater and anger was lower in the uncontrollable-cause condition than in the controllable-cause condition.

**Table 1**

*Mean Values and Standard Deviations for Perceived Controllability of the Cause, Sympathy, Anger, and the Likelihood of Lending Notes in the Two Causal Conditions*

Variable	Causal condition					
	Controllable cause			Uncontrollable cause		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Perceived controllability	148	6.9	2.5	149	3.3	2.2
Sympathy	147	3.7	2.4	149	6.4	2.1
Anger	148	2.7	2.0	149	1.8	1.2
Lending Notes	147	6.6	2.3	149	7.7	1.6

### Mediation Analysis

Table 2 shows the correlations between manipulated controllability of the cause of the help needed and participants' affective reactions and intentions to help. Consistent with the results from ANOVA, controllability of the cause correlated positively with anger, but negatively with sympathy and the likelihood of lending notes. Sympathy correlated positively, while anger correlated negatively with the likelihood of lending notes, and the two emotions correlated negatively with each other.

**Table 2**

*Correlations between Controllability of the Cause, Sympathy, Anger, and the Likelihood of Lending Notes (N = 297)*

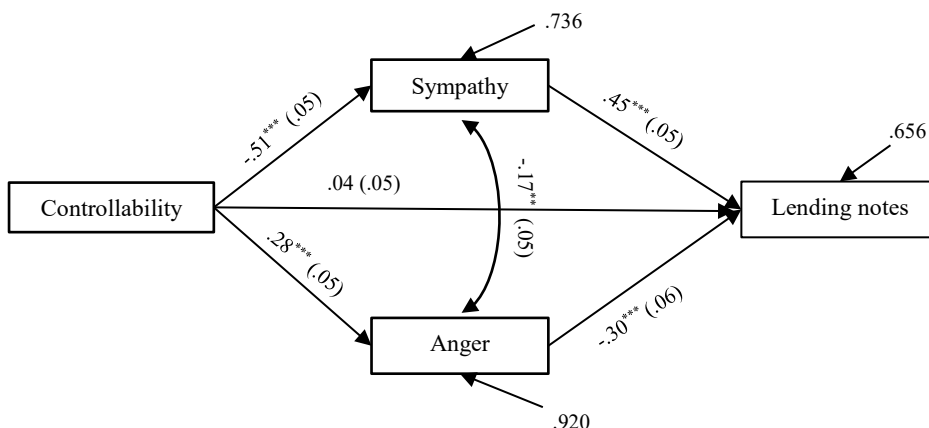
Variable	1	2	3	4
1. Controllability	-	-.52***	.28***	-.28***
2. Sympathy		-	-.29***	.52***
3. Anger			-	-.41***
4. Lending notes				-

*Note.* Controllability is a dummy variable, coded as 1 = controllable cause, 0 = uncontrollable cause.  
\*\*\* $p < .001$ .

To test whether the effect of controllability on intentions to help is indirect through emotions towards the person seeking help, we conducted a mediation analysis. The results are shown in Figure 1. The model explained 34.4% of the total variance in students' helping intentions. The regression coefficients between controllability and both sympathy and anger were statistically significant, as were the regression coefficients between the two emotions and the helping intentions. To test the significance of the indirect effects, we estimated the 95% confidence intervals using the bootstrapping procedure with 10,000 bootstrap samples. Since bootstrapping is not possible with MLR, we re-estimated the model with the ML estimator. The results showed significant indirect effects of controllability on helping intentions through sympathy ( $a_1*b_1 = -.23, p < .001, 95\% \text{ CI } [-.30, -.17]$ ) and through anger ( $a_2*b_2 = -.08, p = .001, 95\% \text{ CI } [-.13, -.04]$ ). The direct effect of controllability on helping intentions was not significant ( $c = .04, p = .392, 95\% \text{ CI } [-.06, .15]$ ).

**Figure 1**

*Mediation Model of the Effect of Controllability of the Cause of Help Needed on Help Judgements through Sympathy and Anger towards the Person in Need (N = 297)*



*Note.* Coefficients showed are standardized regression weights with standard errors shown in parentheses. \*\* $p < .01$ ; \*\*\* $p < .001$ .



## Moderation Analyses

Before conducting the multigroup analyses, we tested the differences in willingness to help a classmate between different groups of students based on their academic field, absenteeism, and note-taking behaviour. Three separate ANCOVAs were conducted, each with a different student variable (i.e., characteristic of a helper) as the independent variable, helping judgements as the dependent variable, and participants' gender as a covariate. We decided to control for possible gender effects because our subsamples were not balanced in terms of gender and some previous studies have indicated gender differences in helping behaviour (see, e.g., Eagly, 2009). The correlation between participants' gender and the likelihood of lending notes was  $r(294) = -.19$  ( $p = .001$ ) in our sample, suggesting that female students were more likely to help a classmate in need. With more female students choosing to study psychology and more male students choosing to study engineering, there were significantly more females in the psychology subsample and significantly more males in the two groups of engineering students. There were 16 male and 64 female psychology students, 84 male and 28 female engineering students attending faculty with criterion-referenced assessment, and 87 male and 18 female engineering students attending faculty with normative assessment.

Different proportions of males and females in the sample and differences between male and female students in the tendency to skip classes and take lecture notes also resulted in unequal proportions of males and females in the subsamples based on participants' absenteeism and habit of taking lecture notes. The variable absence from class originally had 5 categories, but the first two categories were merged and the last two categories were merged, resulting in three categories: "low absenteeism" (*up to five absences in the previous semester*), "moderate absenteeism" (*six to ten absences in the previous semester*) and "high absenteeism" (*more than ten absences in the previous semester*). There were 71 male students in the low absenteeism group compared to 39 female students, 52 male students in the moderate absenteeism group compared to 44 female students, and 64 male students in the high absenteeism group compared to 27 female students. Based on the participants' responses regarding taking notes in class, two groups were formed: participants who estimated that they *never* or *sometimes* take notes in class were placed in the "rare note-taking" group and participants who estimated that they *often* or *always* take notes in class were placed in the "frequent note-taking" group. Male students rated themselves as less likely to take lecture notes than female students: 126 males and 45 females estimated that they rarely take lecture notes and 61 males and 65 females estimated that they frequently take lecture notes.

The mean values for the likelihood of lending notes as a function of the helper characteristics studied are shown in Table 3, together with the mean values adjusted for gender. It can be seen that the values did not change significantly after controlling for gender. The ANCOVA results showed a significant difference between the three

academic subgroups of students ( $F(2, 292) = 4.12, p = .017, \eta_p^2 = .027$ ). The Bonferroni post hoc test showed that psychology students were more willing to help than engineering students attending faculty with criterion-referenced assessment ( $p = .026$ ) and engineering students attending faculty with normative assessment ( $p = .028$ ). There was no difference in willingness to help between the two groups of engineering students attending faculties with different assessment systems ( $p = 1.00$ ). We also found a significant effect of absenteeism on willingness to help ( $F(2, 292) = 3.88, p = .022, \eta_p^2 = .026$ ), but the Bonferroni post hoc test showed that only the difference between the low and high absenteeism groups was significant ( $p = .019$ ). The high absenteeism group showed a higher willingness to help a classmate. We found no difference in willingness to help between the two groups of students who differed in note-taking behaviour ( $F(1, 293) = 2.73, p = .100, \eta_p^2 = .009$ ). Thus, participants' academic field and personal absence from class had a significant effect on their intention to help a classmate, even after controlling for participants' gender.

**Table 3**

*Mean Values and Standard Deviations for the Likelihood of Lending Notes as a Function of Different Student Characteristics (Participants' Academic Field, Absenteeism, and Note-Taking Behaviour)*

Student characteristic	<i>n</i>	% of males	<i>M</i>	<i>M</i> <sub>adj.</sub> <sup>a</sup>	<i>SD</i>
Academic field					
Psychology	80	20.0	8.0	7.8	1.5
Engineering, criterion	111	75.7	6.9	6.9	2.2
Engineering, normative	105	82.9	6.8	7.0	2.2
Absenteeism					
Low	110	64.5	6.8	6.8	2.2
Moderate	96	54.2	7.3	7.2	2.0
High	90	71.1	7.5	7.6	1.9
Note-taking					
Rare	170	74.1	7.2	7.3	2.1
Frequent	126	48.4	7.1	6.9	2.1

*Note.* <sup>a</sup> Mean value adjusted for gender.

To examine the moderating effects of selected helper characteristics on the relationship between controllability of the cause of the help needed, emotions towards the person in need, and intention to help, we conducted three multigroup analyses. Figure 2 shows the results obtained in three academic subgroups. The model explained 23.9% of the variance in helping intentions among psychology students, 40.4% among engineering students attending faculty with criterion-referenced assessment, and 36.8% among engineering students attending faculty with normative assessment. To test whether parameter estimates differed significantly between groups, we estimated the model with all parameters constrained to be equal across groups. The model showed a relatively good fit (with

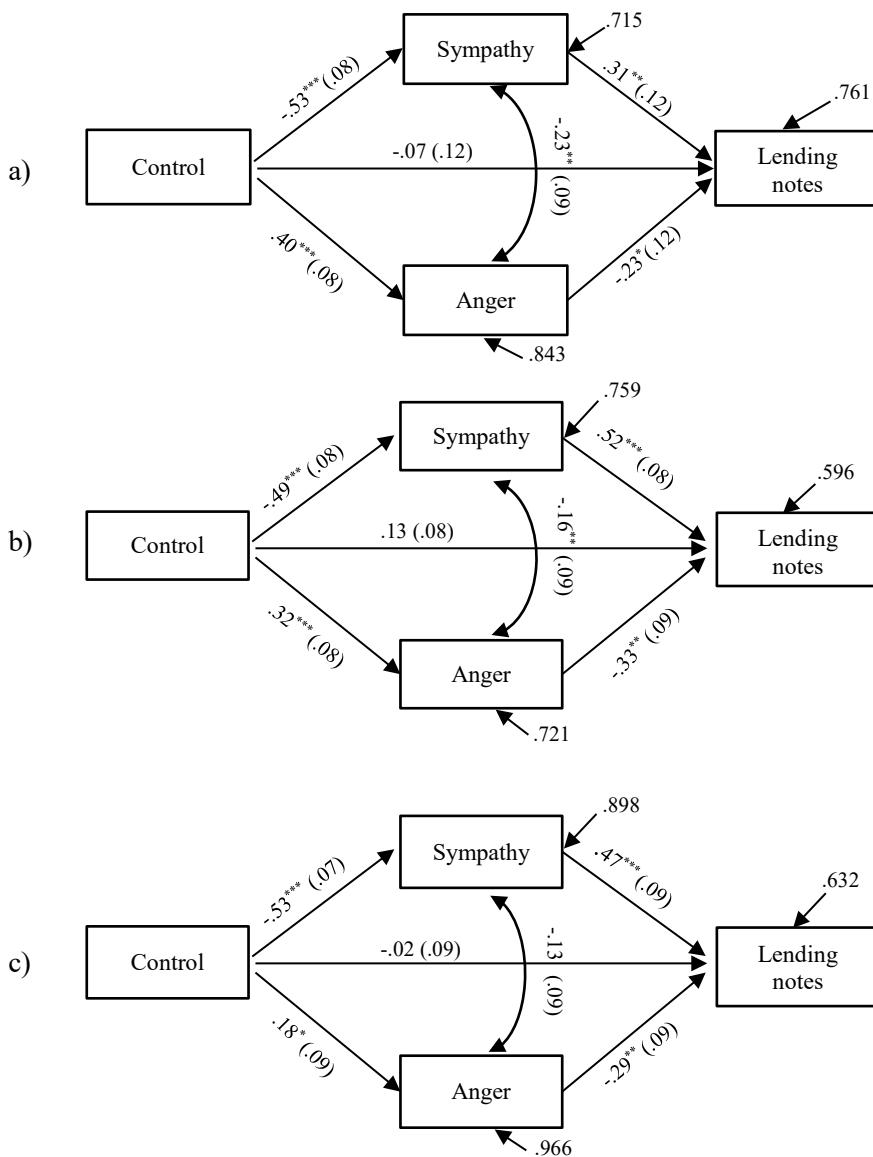
the exception of SRMR = .14). However, the modification indices indicated that the regression path between sympathy and helping judgements in the psychology group was significantly different from the other two groups, so we freely estimated this parameter. The model showed a good fit ( $\chi^2(11) = 5.63, p = .897$ ; CFI = 1; RMSEA = 0, 90% CI [0, .05]; SRMR = .04). The sympathy effect on helping intentions was weaker in the psychology group, than in the two engineering groups, and the indirect effect through anger was not significant in the group of engineering students attending faculty with criterion-referenced assessment. However, we found no significant difference in the size of indirect effects between the three groups (Wald  $\chi^2(4) = 5.65, p = .228$ ).

The results for the subgroups based on participants' absence from class are shown in Figure 3. The model explained 37.3%, 38.8%, and 28.1% of the variance in helping intentions for students with low, moderate, and high absence rates, respectively. The constrained model fitted the data poorly, so we freely estimated the two parameters in the high absenteeism group, which had the largest modification indices. This model showed a good fit ( $\chi^2(10) = 9.65, p = .470$ ; CFI = 1; RMSEA = 0, 90% CI [0, .11]; SRMR = .06). The effect of controllability on sympathy was weaker in the high absenteeism group than in the other two groups and the effect on anger was not significant. In all three groups, the indirect effect through anger was weak and significant only in the moderate absenteeism group. The difference in the size of the indirect effect through anger was not significant between the three groups. The indirect effect through sympathy was weaker in the high absenteeism group ( $a_1*b_1 = -.11, 95\% \text{ CI } [-.20, -.02]$ ) than in the moderate ( $a_1*b_1 = -.23, 95\% \text{ CI } [-.38, -.08]$ ) and low absenteeism groups ( $a_1*b_1 = -.30, 95\% \text{ CI } [-.41, -.19]$ ), but the difference was significant only between the low and high absenteeism groups ( $p = .014$ ).

Finally, Figure 4 shows the results for the two subgroups based on participants' habit of taking notes in class. The model explained 37.3% of the variance in students' helping intentions in the group that rarely takes notes and 33.9% in the group that frequently takes notes. Again, the constrained model showed poor fit. After the two parameters, the path between controllability and sympathy and the path between anger and helping judgements, were freed, the fit improved ( $\chi^2(4) = 3.58, p = .467$ ; CFI = 1; RMSEA = 0, 90% CI [0, .12]; SRMR = .04). Controllability had a stronger effect on sympathy and anger had a weaker effect on helping judgements in the group of students who frequently took notes. We found no difference in the indirect effect through anger between the two groups, but the indirect effect through sympathy was significantly (Wald  $\chi^2(1) = 4.3, p = .038$ ) weaker in the group that rarely took notes ( $a_1*b_1 = -.17, 95\% \text{ CI } [-.24, -.10]$ ) than in the group that frequently took notes ( $a_1*b_1 = -.34, 95\% \text{ CI } [-.46, -.22]$ ).

**Figure 2**

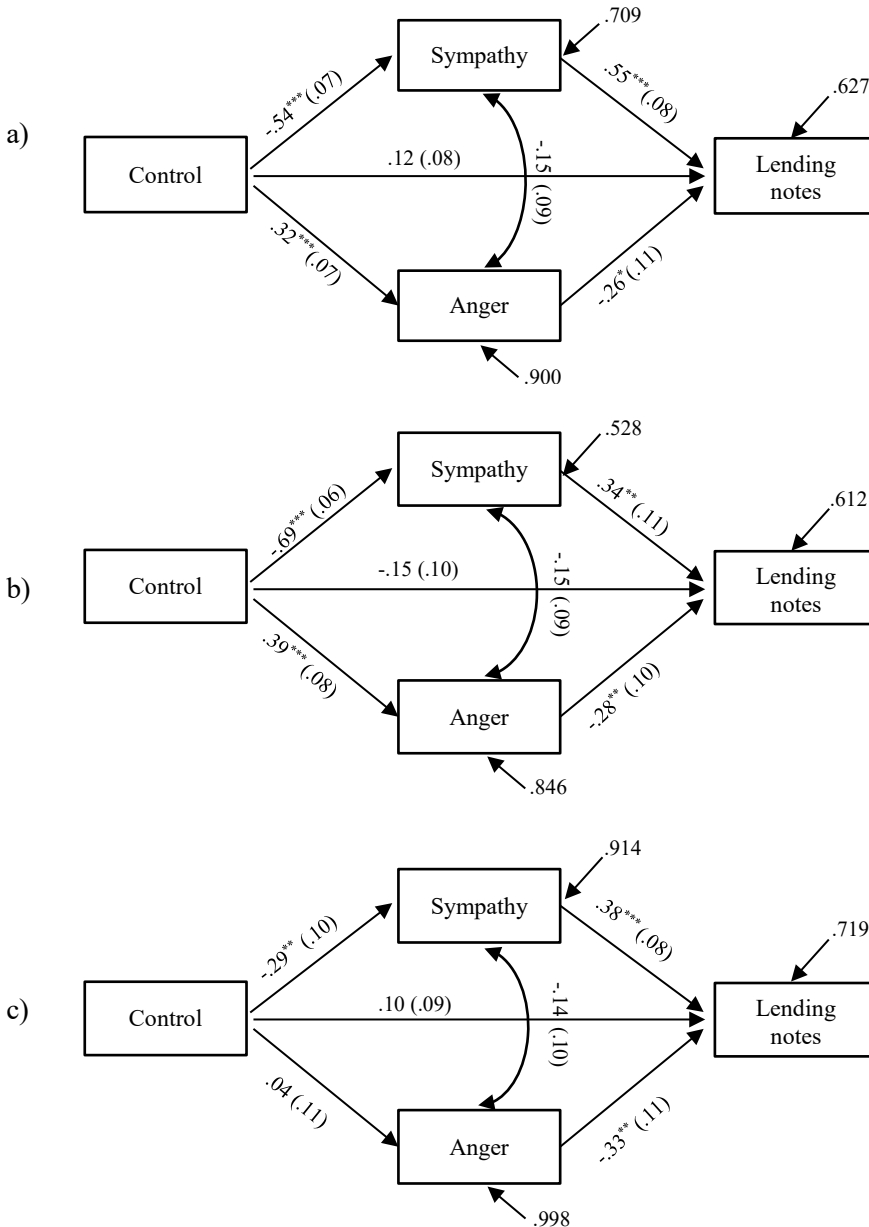
*Attribution-Emotion Model in the Three Academic Subgroups: a) Psychology (n = 80), b) Engineering, Criterion Assessment (n = 112), c) Engineering, Normative Assessment (n = 105)*



Note. Coefficients showed are standardized regression weights with standard errors shown in parentheses. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

**Figure 3**

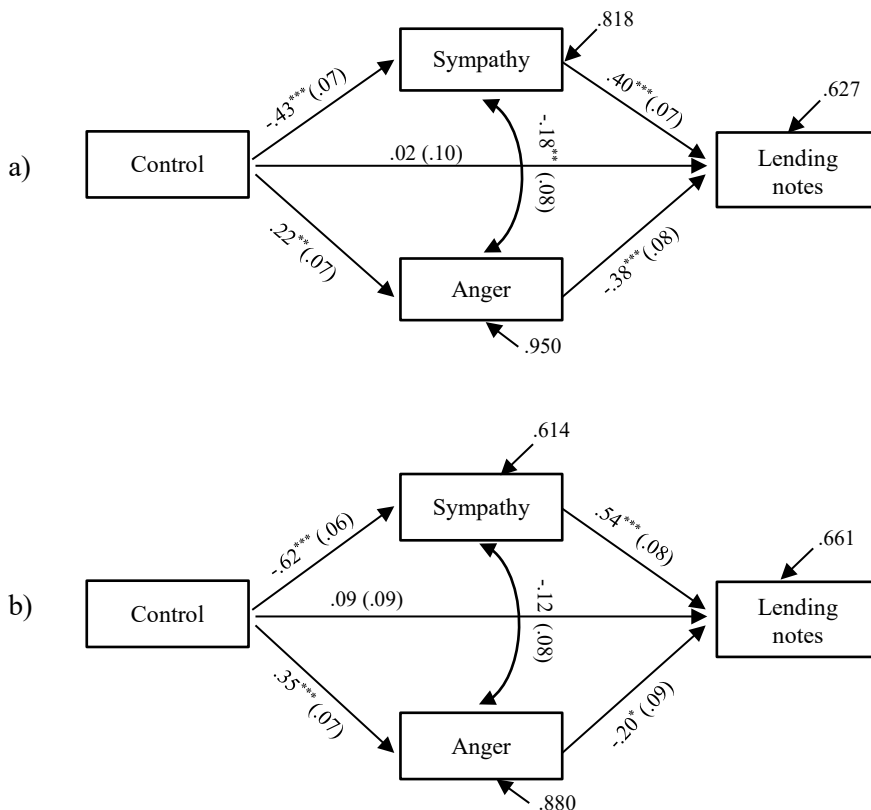
*Attribution-Emotion Model in the Three Absenteeism Subgroups: a) Low (n = 110), b) Moderate (n = 96), and c) High (n = 91)*



*Note.* Coefficients showed are standardized regression weights with standard errors shown in parentheses. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

**Figure 4**

*Attribution-Emotion Model in the Two Subgroups Based on Note-Taking Behaviour: a) Rare Note-Taking (n = 171), b) Frequent Note-Taking (n = 126)*



*Note.* Coefficients showed are standardized regression weights with standard errors shown in parentheses. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

## Discussion

Previous studies have consistently shown that attributing personal control over the cause of one's need for help influences the helper's decision to help by eliciting emotions of sympathy and anger (for a review, see Rudolph et al., 2004). However, some studies have indicated that certain factors can interact with the variables in the attribution-emotion model (e.g., Higgins & Shaw, 1999; Schwartz & Fleishman, 1978). This study examined the attribution-emotion model of helping behaviour in the Croatian academic context and possible moderating effects of some of the

helper's characteristics. The results of this study support findings from other countries. We found that participants in the uncontrollable-cause condition expressed significantly more sympathy, less anger, and a higher likelihood of helping the classmate than in the controllable-cause condition. The correlations between controllability, emotions, and the likelihood of lending notes were all in the expected direction. Moreover, the relationship between controllability and helping judgements was mediated by elicited emotions, confirming hypotheses 1 and 2. It should be noted that the indirect effect through anger was weak, i.e., controllability influenced helping judgements mainly through sympathy. The attribution-emotion model explained 34.4% of the total variance in helping intentions.

However, our results showed that Croatian students generally demonstrated a high willingness to help a classmate in need and that controllability of the cause of the help needed had a weak influence on their helping judgements. Both Reisenzein (2015) and Weiner (2015) have suggested that the type of the helping situation can moderate the effect of attributions on helping behaviour and influence helping judgements. Although lending class notes among students may be considered inappropriate academic behaviour in some cultures, it is a common practice in Croatia. Students are often interdependent, so it is possible that they showed a high willingness to help because they hope to receive the same help in the future. On the other hand, Croatian students have positive attitudes towards academic cheating and often engage in this behaviour (see, e.g., Kukolja Taradi et al., 2012; Petrak & Bartolac, 2014). It is possible that their judgments about various student behaviours are less influenced by the legitimacy of the actions. Thus, the high likelihood of helping and the rather weak effect of controllability could be at least partly the result of the specific helping situation or the values and academic culture of students in Croatia, but this should be further investigated.

We also investigated whether certain characteristics of the helper have an effect on helping intentions and moderate the relationship between controllability, emotions, and helping judgements. Results showed significant effects of participants' academic field and absenteeism on their willingness to help a peer in need. As expected, psychology students, i.e., future helping professionals, were generally more willing to help a classmate in need than either group of engineering students. Although we expected that academic field would also moderate the relationship between controllability, emotions and helping judgements, hypothesis 3 was not supported. Controllability of the cause of the help needed influenced emotions towards the classmate in need and consequently intention to help in all three groups of students. However, we found a weaker effect of elicited sympathy on intentions to help in the psychology group. The model explained only 24% of the variance in these students' intentions to help, compared to 37-40% in the two engineering groups. Thus, it appears that the psychology students' decision to help was more influenced by factors outside the attribution-emotion model. One factor that could explain the higher willingness to help in this group is personality traits.

For example, several studies have indicated that certain dispositional traits are related to prosocial behaviour, such as agreeableness (e.g., Caprara et al., 2010; Volk et al., 2011) and empathic concern (see, e.g., Davis, 2015). Although we did not examine these traits in the present study, some previous studies have found that psychology students have higher scores for agreeableness (see, e.g., Vedel, 2016) and empathic capacity compared to students in various non-helping professions, even at the time of enrolment (e.g., Dimitrijević et al., 2011). No significant difference in helping intentions was found between the two groups of engineering students attending faculties with different assessment systems. This confirms the findings of Bell et al. (1995) who also found that normative grading did not reduce students' willingness to lend their lecture notes, but did reduce some other forms of helping behaviour. One possible explanation is that lending class notes is not perceived as a behaviour that could jeopardise one's chances of academic success. It is also possible that normative assessment in the Croatian academic context does not provide a sufficient incentive for competition among students, as hypothesised. Our results showed that normative assessment also had no effect on the relationship between controllability, emotions and helping, at least not in the helping situation studied.

Bell et al. (1995) also found that students with high absenteeism were more likely to lend their notes than students who attended lectures regularly. Our study adds to the literature by showing that student absenteeism can also moderate the relationship between controllability, emotions and helping judgements. We found a significantly weaker effect of controllability on sympathy and no effect on anger in the high absenteeism group. In addition, the indirect effect through sympathy was weaker in this group than in the other two groups, but the difference was only significant between the low and high absenteeism groups. Although the indirect effect through anger was not significant in the high absenteeism group, it was also not significant or very weak in the other two groups. Nevertheless, the results of this study showed that students' personal high absenteeism attenuated the effect of controllability on emotions towards the classmate in need. Additional analyses revealed that these students expressed more sympathy and less anger towards the classmate in the controllable-cause condition than the other two groups. Furthermore, we obtained similar results for the personal habit of taking lecture notes. Although we found no difference in the likelihood of lending notes between students who rarely and frequently take lecture notes, the results of the multigroup analysis showed that controllability had a weaker effect on sympathy and a weaker indirect effect on helping judgements through sympathy in the group of students who rarely take notes. Additional analysis revealed that these students expressed significantly more sympathy for the classmate in the controllable-cause condition than students who frequently take lecture notes. The possible explanation is that these students identified with the classmate in need because of their perceived similarity, which made them more empathetic towards them. Their reactions and judgements were therefore less influenced by the legitimacy of the classmate's behaviour. This is similar to Grubb and Harrower (2009), who found that high perceived personal



victim similarity correlated negatively with victim blaming. In addition, these students, especially students who frequently skip classes, may often be in the situation of having to borrow lecture notes. Consistent with the reciprocity norm (Gouldner, 1960), it is possible that these students are more willing to help because they expect the same help in the future.

As with any study, there are some limitations that should be addressed. This study only examined one particular helping situation and moderating effects of variables relevant only to the situation studied. Therefore, the conclusions cannot be generalised to other helping situations and populations, as different variables can act as moderators in different situations and the situation itself can moderate the effect of controllability on helping judgements (see, e.g., Reizenzein, 2015). Therefore, the attribution-emotion model should be further tested in a variety of helping contexts and populations. Future research examining the role of additional individual and/or situational variables within the model could further explain the relationship between controllability of the cause of help needed and helping behaviour. In this study, we focused only on the characteristics of the helper, but various characteristics of the person seeking help could also play a role. The participants in our study were all first-year students who were still in the process of building relationships with their new classmates and adjusting to their new role as university students. This is usually a stressful time for new students and it is likely that they rely on each other more during this time. This could lead to them being more willing to help their classmates as they expect to receive help in turn. We suggested that the high likelihood of helping and the rather weak effect of controllability on helping intentions might be explained, at least in part, by students' values and attitudes towards academic cheating. However, we did not measure these variables, so no firm conclusions can be drawn about their effects. Future studies could explore these questions further by directly examining the effects of these variables on students' helping behaviour. The effects of normative assessment on students' helping behaviour and cooperation should also be further investigated. In this study, we examined the difference in helping intentions between students attending faculty with normative assessment and students attending faculty with criterion-referenced assessment, but we did not collect data on students' perceptions of normative assessment. It is possible that Croatian students do not perceive normative assessment as a sufficient incentive to compete, which is why we did not observe lower willingness to help in this group of students. Finally, it should be noted that we used vignettes and self-assessments, which raises the question of socially desirable responses. Our conclusions are based on participants' cognitive judgements which may differ from their actual behaviour, so further studies in real situations are needed.

In conclusion, the results of this study support the attribution-emotion-helping relationship. The controllability of the cause of one's need for help influenced helping judgements primarily through the sympathy elicited by the attributional analysis. Furthermore, this study supports the notion that individual differences can

act as moderators of the relationship between controllability, emotions and helping. However, it is important to consider the specific helping situation, as different helping situations may differ in terms of possible moderating variables. We encourage researchers to investigate other factors that may promote or inhibit helping behaviour in academic contexts, and to examine students' helping behaviour in real rather than simulated situations.

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## **Atribucije kontrole i namjera pružanja pomoći među studentima: moderacijski učinci nekih karakteristika pomagača**

### Sažetak

Ranija su istraživanja pokazala da individualni i socijalni čimbenici mogu moderirati odnos između atribucija kontrole, emocija i pomaganja. Cilj je ovoga istraživanja bio ispitati odnos između atribucija, emocija i pomagačkih namjera u hrvatskome akademskom okruženju te provjeriti moderiraju li taj odnos neke karakteristike pomagača (sudionikovo studijsko usmjerenje, osobno izostajanje s nastave te navika vođenja bilješki na predavanjima). Proveden je eksperiment s vinjetama koje su opisivale studenta koji želi posuditi bilješke s predavanja. Sudionici su također procijenili u kojoj su mjeri izostajali s nastave prošli semestar te koliko često imaju vlastite bilješke s predavanja. Podaci su prikupljeni od 298 studenata s triju fakulteta Sveučilišta u Zagrebu. Iako su hrvatski studenti općenito pokazali visoku spremnost za pružanje pomoći kolegi te je kontrola uzroka potrebne pomoći imala slab učinak na pomagačke namjere, dobiveni su rezultati u skladu s atribucijskim modelom. Međutim, rezultati također ukazuju na to da neke karakteristike studenata mogu moderirati odnos između atribucija kontrole, emocija i pomaganja. Indirektni učinak kontrole na pomagačke namjere preko pobuđenoga suosjećanja bio je slabiji kod sudionika koji često izostaju s nastave te onih koji rijetko imaju vlastite bilješke s predavanja.

*Ključne riječi:* atribucije kontrole, pomagačko ponašanje, studenti, karakteristike studenata

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## Appendix

### Vignettes (adapted from Weiner, 1980b)

#### *Controllable Cause Scenario*

At about 1:00 in the afternoon you are leaving the faculty building, and a fellow student, whom you don't know very well, comes up to you. He says that he has noticed you in classes, and he would like to ask you for a favour. He asks if you would lend him the class notes from one of last week's lectures. He indicates that he needs the notes because he stayed out late the previous night, so he decided to skip the class the next morning and stay in bed.

#### *Uncontrollable Cause Scenario*

At about 1:00 in the afternoon you are leaving the faculty building, and a fellow student, whom you don't know very well, comes up to you. He says that he has noticed you in classes, and he would like to ask you for a favour. He asks if you would lend him the class notes from one of last week's lectures. He indicates that he needs the notes because he was unable to follow the lecture due to difficulty with his eyes. A change in a type of glasses was required, and during the week he had difficulty seeing because of eye drops and other treatments. You notice that he is still wearing especially dark glasses and has a patch covering one eye.