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Examining the Effects of Self-Set vs. Socially-Set Academic Goals and
Self-Construal on Course Enjoyment

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Honours Thesis

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Examining the effects of self-set vs. socially-set academic goals and self-construal on course enjoyment

Why are *some* students more motivated than *others*? This question speaks to individual differences in motivation, which is the focus of this thesis. One way that motivation researchers have tried to understand individual differences in motivation includes looking at goal-setting behaviours, because setting goals is one of the ways people motivate themselves (Locke and Latham, 1994; Elliot & Church, 1997). Most of the research on student motivation and goal setting is based on Western European participants and places a very high emphasis on the importance of the self, autonomy, independence and individualism. For example, goal-setting theory (Locke, 1996) discusses the importance of self-management, self-administration, self-commitment, self-motivation, and self-efficacy. These self-driven qualities reflect independent, self-directed goals. Parents and educators both value and teach their children and students to embrace these sought-after qualities. Seemingly, these self-driven qualities are what appear to produce success. This thesis attempts to capture a more social dimension in goal setting by investigating individual differences in interdependence (collaboration; making decisions *with* others) and independence (uniqueness; making decisions *despite* others), in order to examine whether people who value interdependence show different motivational patterns in their goals from people who are independent.

Heightening student motivation is of great importance in education. Educators realize that student motivation often parallels student performance. One of the more promising components of effective motivation focuses upon goal setting. While examining the content of people's goals, Locke and Latham (1994) found that three main factors result in the highest performance: goal specificity, goal difficulty and goal commitment.

First, goal specificity refers to how specific the goals are that people pursue. Goal specificity is highly related to performance because knowing what one is working towards is a more optimal situation than either not knowing what one is working towards (vague goals) or not working towards any goal at all (no goal) (Locke & Latham, 1994). Second, goal difficulty refers to how difficult, hard or challenging a particular goal will be to achieve. When a goal is reasonably more difficult, people put in more effort to reach the goal (Locke & Latham, 1994; see also Locke & Latham, 1990). Finally, goal commitment simply refers to how dedicated an individual is to pursuing a goal. Individuals are highly committed to goals that they perceive as attainable and important (Locke & Latham, 1994). This work by Locke and Latham builds off of research on specific goals by adding consideration of why the goal is being pursued, and how people think about the goal.

In light of this research by Locke and Latham (1994) on goal setting, measuring students' goals in terms of specificity, difficulty and commitment in order to understand how they affect eventual student achievement warrants continued investigation. Therefore, as part of the current research, we will ask students to state their goal for a specific course in terms of their desired grade (%), as well as the perceived attainability and importance of that goal. An interesting extension of Locke and Latham's work would be to examine whether pursuing specific, challenging goals *always* results in higher performance, or whether there are other factors that influence the strength of this relationship.

Roney and Lehman (2008) attempted to answer this exact question in the context of goal framing. They found that challenging and specific goals benefit performance only when the goal is framed positively as opposed to negatively. Framing simply refers to one of two things—either the way one thinks about his or her goal, or the way that a goal is communicated to an

individual (i.e., the wording of a goal). For example, two students may have the same goal (e.g., achieving 85% in a course), but frame it differently. Student A might frame the goal as something to look forward to (e.g., “It will be good if I get 85%”) (Roney & Lehman, 2008, p. 2691), whereas student B might frame the goal as trying to avoid falling below a particular level (e.g., “It will be bad if I get less than 85%”) (Roney & Lehman, 2008, p. 2691). They found that negative goal framing predicted worse performance. An important implication of this research by Roney and Lehman is that goals are multidimensional—i.e., goals are not always “good.” Depending on how an individual thinks about (or frames) their goal, successful or unsuccessful performance may result.

Given Roney and Lehman’s (2008) findings that challenging and specific goals do not lead to increased performance when the goal is framed negatively, it is important for the current research to measure students’ framing of their goal. The current research will use the same operationalization of goal framing as Roney and Lehman (2008): “anticipated emotion following particular outcomes” (p. 2695). Specifically, the current research asks students to rate the extent to which they would feel four positive emotions (pleased, happy, relieved, reassured) if they reached their goal, and four negative emotions (disappointed, saddened, ashamed, humiliated) if they did not reach their goal. Theoretically, if students are positively framing their goal, they should report higher anticipated positive emotions upon reaching their goal; if students are negatively framing their goal, they should report higher anticipated negative emotions upon not reaching their goal (especially shame, as shown in previous research) (Roney and Lehman, 2008). Based on this previous research, we hypothesize that negative framing will predict lower course enjoyment, given its association with poor performance. Although the specific goal research done by Locke and Latham (1994) and Roney and Lehman (2008) has looked at *what*

goal an individual pursues, it does not seem to answer the question of *why* the individual pursues that goal. Similarly to research conducted by Roney and O'Connor (2008), this study aims to understand the broader context for *why* participants pursue their goals. Therefore, a major addition in this study is the examination of the social context of these goals, such as how an individual's personality relates to their decision-making (e.g., setting goals alone or with others), and how this, in turn, relates to their enjoyment of a course.

Individual Differences in Independence and Interdependence

In 2007, Latham and Locke discussed a need for studies that specifically examine goal-setting theory and personality. We plan to do this in the current study in terms of self-construal. Self-construal broadly refers to whether or not an individual perceives him or herself as separate *from* (independent) or connected *to* (interdependent) others (Markus & Kitayama, 1991). We hypothesize that an individual's tendency to be *separate from* (independent) or *connected to* (interdependent) others may influence his or her goal-setting behaviours. Previous research examines how these two personality types react differently to certain situations.

Previous research has shown a number of differences between independent people and interdependent people in how their view of self relates to others. Siy and Cheryan (2013) conducted cross-cultural studies examining how self-construal is related to people's reactions to positive stereotypes. In general, stereotypes are (usually vague and unrepresentative) categories that people place on individuals or groups to "lump" them together. Positive stereotypes refer to stereotypes that seem friendly or non-harming (e.g., "Asians are good at math" or "women are nurturing"), but are nevertheless somewhat unrepresentative of each individual placed/lumped into that group. In their European sample, Siy and Cheryan (2013) found that positive stereotypes led to *negative* emotions (i.e., the European individuals did not want to be "lumped"

into a group with other “similar” people). These results support this study’s assumption that Europeans (who tend to be individualistic) value being perceived as unique (independent) from others. This assumption can be made because interdependent individuals reacted *less* negatively to the positive stereotypes, suggesting that interdependent individuals do not mind being associated with others as part of their personal identity.

Similarly, in a study on conformity, participants were placed into a situation where they were newcomers to a group (Täuber & Sassenberg, 2012). When placed in this situation, independent people were *less likely* to conform to the group (i.e., they showed less “[cognitive] alignment of their individual goals with the group’s goals and [exhibited less behavioural] effort...to attain the group’s goals”) (Täuber & Sassenberg, 2012, p. 140). The exact opposite result was found for interdependent people, which again illustrates that independent people are more focused on their self, whereas interdependent people are more focused on other people (i.e., they show more/better social integration).

Some research on independence/interdependence specifically has implications for goal setting that does, or does not, reflect the influence of other people. Pöhlmann, Carranza, Hannover, and Iyengar (2007) found that when making decisions for themselves or others, *independent* individuals 1) paid more attention to their options when making decisions for themselves, 2) liked the choices that they made for themselves better, and 3) preferred to be both given choices and the one who makes the choice. In contrast, these researchers found the exact opposite results for interdependent individuals. Interdependent individuals 1) paid more attention to their options when they had to make choices *for other people*, 2) liked the choices that *others made on their behalf* (and that they made for others) more, and 3) were much more *cooperative* or *compliant* when told to choose for other people or that other people would choose

on their behalf (Pöhlmann et al., 2007). Given these findings, one prediction for the current study is that incorporating the wishes of other people into one's goals will be *more* positive for interdependent people, whereas having goals that are entirely self-set (or autonomous, which will be discussed below) will be more positive for independent people.

This is further suggested in a study conducted by Varnum et al. (2014) whose findings suggest that people who are more interdependent experience rewards for close others *as strongly as* they experience rewards for their self (e.g., if their friend is successful in a race and wins a medal, they are just as genuinely happy for their friend's success as they would be if they had won the race themselves). In contrast, independent people—who tend to be very competitive—more characteristically feel jealous in similar situations where other people are attaining success. Therefore, in addition to the goal measures described previously, this study will also include a measure of independent/interdependent self-construal. Also, to investigate how personality and the nature of people's specific goals affect them, a measure of course enjoyment will be included.

Autonomy

One theory that specifically considers social influences on motivation is self-determination theory (Deci & Ryan, 2008). A very important factor in this theory is autonomy, which Deci and Ryan (2008) refer to as, “behaving with a full sense of volition [determination] and choice” (p. 14). It is important to note that autonomy is not synonymous with independence, which means, theoretically, that both an interdependent person as well as an independent person can technically be autonomous. Deci and Ryan (2008) explain this succinctly: “autonomy is *not* the same thing as independence...Autonomy means to act with a sense of choice...Independence

means to function alone and not rely on others” (p. 15-16). Therefore, Deci and Ryan (2008) use the term autonomy synonymously with self-determination.

The opposite of autonomy (or self-determination) for Deci and Ryan (2008) is what they call “controlled” motivation or, “behaving with the experience of pressure and demand toward specific outcomes that comes from forces perceived to be external to the self” (p. 14). Given that these researchers have equated autonomy with self-determination, it is a logical assumption that their notion of controlled motivation (as autonomy’s opposite) could be understood as completely *other*-determined as opposed to completely *self*-determined. Essentially, Deci and Ryan’s (2008) theoretical model argues that someone who is autonomous (or self-determined) will have higher persistence, adherence and psychological well-being, which are all conducive to success (Deci & Ryan, 2008). However, a distinction that is crucial for the current study is that although extrinsic motivation may often involve pressures from other people, maybe not all of the impact stemming from other people is experienced or perceived as controlling. For example, it seems logical that independent people might be more likely to experience pressure from other people as controlling because they strive to do everything separate from others, whereas interdependent people may not react so negatively to pressures coming from other people (and consequently, not view these pressures as controlling as independent people might).

A major aim of the present study is to examine individual differences in independence and interdependence in relation to people’s specific goals. To understand how these social orientations will relate to goals and motivation it is especially important to recognize the potential distinction between being *influenced by* others and being controlled (i.e., lacking autonomy). Autonomy refers to the freedom to choose. An autonomy continuum, therefore,

would stretch from controlled, no freedom, and no choice at one extreme, through to autonomous, completely free choice at the other extreme:

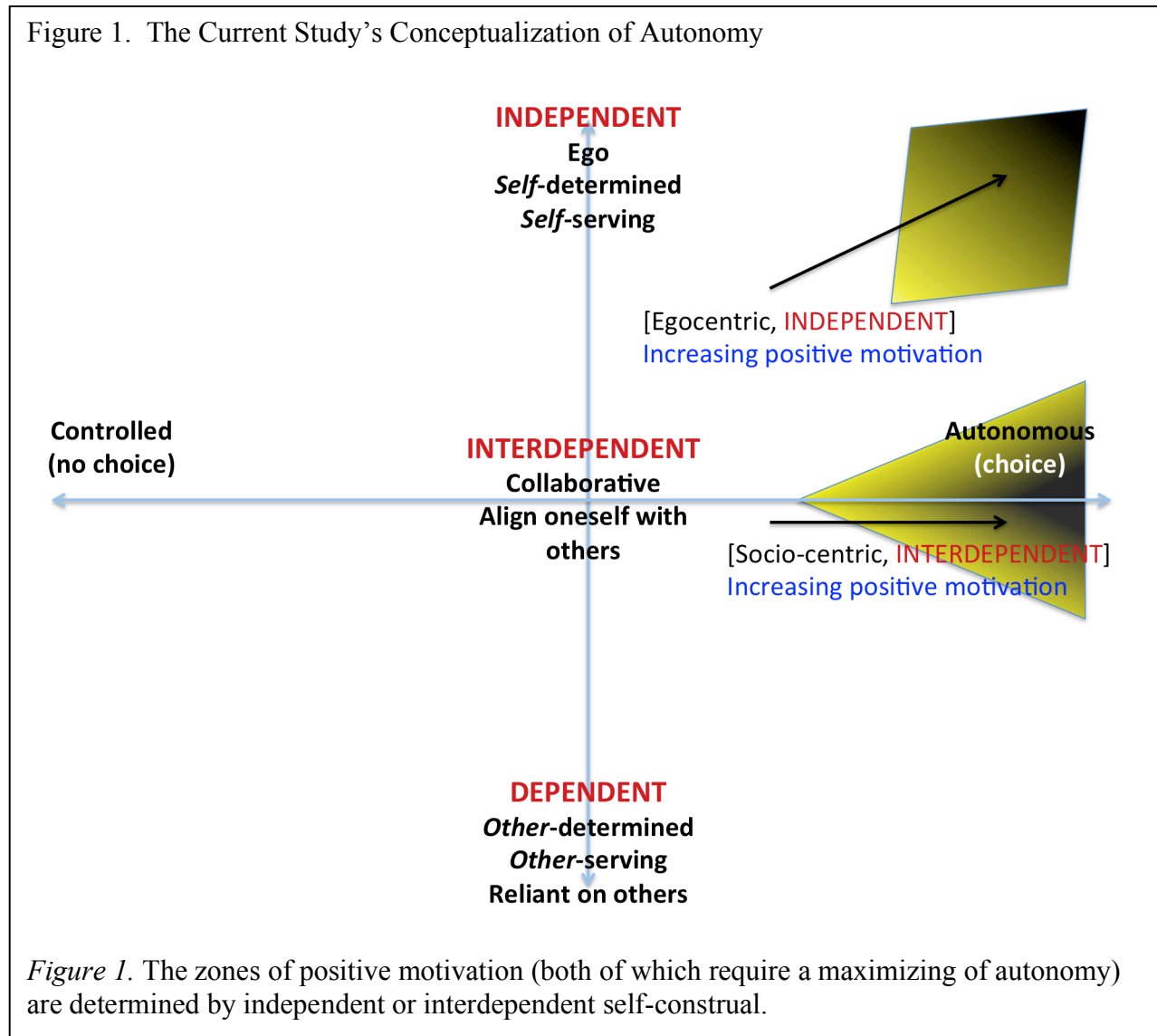


However, most importantly, completely autonomous choices may come in a variety that fall along another continuum. This second (self-construal) continuum runs from one extreme of complete independence through to the other extreme of complete dependence, with interdependence lying in the middle between these two extremes:



To illustrate these distinctions as they might relate to goals, consider the following examples. A person may want to achieve an 80% because they feel that their past goal setting has earned them a scholarship and they now conceive of themselves as a continuing scholarship student; further, the 80% grade is also a requirement for the program that they have chosen for themselves. This would be an example of autonomous and independent goal setting. Another student, having discussed possible grades with their parents, has agreed that an 80% is a reasonable goal, which, if attained, would make everyone proud. This is an example of interdependent goal setting. It is also an example of autonomous goal setting if the student never felt compelled to discuss or agree, but at each point *chose to* collaborate.

In agreement with self-determination theory's emphasis on the positive role of autonomy, it is expected that more positive motivation will result when one's goals are autonomous, but this can occur *both* for people who are independent *and* for those who are interdependent. Therefore, if Deci and Ryan's model of autonomy is correct, we predict that *both* independent and interdependent students may enjoy a course at school more the more autonomous (or self-set/self-determined) their goals are. In other words, both independent and interdependent students may have or prefer different decision-making models (e.g., either *separate from* or *in collaboration with* others), but both of these personality types will autonomously *choose* those preferences. To illustrate this prediction, Figure 1 was created for the purposes of this study. Figure 1 illustrates independent, egocentric enjoyment maximizing at the extreme of autonomy and independence, whereas interdependent, socio-centric enjoyment maximizes at the extreme of autonomy and interdependence. In agreement with Deci and Ryan (2008), for either type of person, controlled goals are expected to diminish motivation:



To investigate these issues in the context of goal setting, in the current study we will be measuring participant's reasons for pursuing the specific goal that they have set in their course. Locke and Latham (2006) briefly mention goal sources such as "self-set, set jointly with others [collaborative goals], or assigned [other-set]" (p. 265), but they do not go into these distinctions much further than pointing out that they are possibilities of different goal origins. Similarly to Deci and Ryan (2008), Locke and Latham (1996) advocate for self-set goals as being *best*, or most conducive to success and well-being. Therefore, in the current study, we will be examining

the relationship between the specific goal students' chose (%) and where this goal is coming from: self (autonomy), others (controlled) or both (collaborative). Therefore, there will be three questions that measure each of the following: self-set (autonomous) goals, other-set (controlled) goals, and self-and-other-set (collaborative) goals.

Hypotheses

In brief, the current study predicts that interdependent people will be more likely to give social reasons for pursuing their specific goals, whereas independent people will give more personal (or self-focused) reasons for pursuing their specific goals. When independent people *do have* aspects to their goals that stem from others (or are based on what others want vs. based on what they, personally, want) it will be associated with *less* satisfaction/course enjoyment. For interdependent people it will be the opposite. In other words, we predict that independent people will tend to respond more negatively to goals set by others, whereas interdependent people will tend to respond neutrally or even positively when their goals *align with* others. For both independent people and interdependent people, we predict that controlled reasons for pursuing goals will be associated with less satisfaction/course enjoyment. Additionally, for both independent people and interdependent people, we predict that autonomously set goals may be associated with greater course enjoyment.

Method

Participants

One hundred and twenty-one undergraduate students enrolled in Introductory Psychology courses at King's University College at Western University participated in this study.

Participants were recruited using a study description that students could respond to and sign up online (via SONA Systems Psychology Research Participation website) if they wished to take

part. Students could receive up to 2.5% bonus marks for completing a related assignment. Participants were notified that they are free to withdraw at any time and still receive credit for the written assignment. Students who agreed to participate in the study were asked to read and sign an informed consent form. Given the gender distribution in Introductory Psychology courses at King's, it was expected that there would be more females in the sample, as was the case (96 female; 25 male).

Design

In this study, the main predictor variables are academic goals (goal framing, and whether the goal is perceived as being set by the self, by others, or with others). The criterion variable is course enjoyment. Self-construal as either independent or interdependent will be used as a moderator variable. All of the variables are continuous, with the exception of gender and ethnicity (demographic), which are categorical.

Materials

Demographic variables included age, gender, ethnicity, and inclusionary criteria.

Academic goal questionnaire (revised version). A revised version of the Academic Goal Questionnaire used by Roney and Lehman (2008) will be used. This questionnaire begins by asking what grade percentage the participant would set as his/her goal in the Introductory Psychology course, ranging from 50% to 100%, how likely they think it is that they will reach the goal, and how important the goal is to them. Next, participants respond to positive and negative framing items which ask to what extent the participant would feel particular positive or negative emotions if they reached or did not reach their goal (8 items). Reliability analyses on this scale are quite good; coefficient alphas indicate .78 for the positive framing items and .86 for the negative framing items (Wang, 2014). A sample item illustrating positive framing from this

questionnaire is as follows: “If you reached the goal, to what extent would you feel....” See Appendix A for the entire Academic Goal Questionnaire (revised version).

Questions were added to measure either self-set (autonomous) or other-set (controlled) goals based on a measure of autonomy/control by Ryan and Connel (1989) that was used in a previous honours thesis (Wang, 2014). Reliability analyses were quite good for the autonomous items ($\alpha = .78$), but not as good for the controlled items ($\alpha = .66$). Three questions were added to examine whether goals were set collaboratively with others; the wording of these three questions was adapted from the Collaboration and Satisfaction About Care Decisions (CSACD) questionnaire (Baggs, 1994). In this part of the questionnaire, participants answer questions about why they are pursuing the percentage goal they indicated previously in terms of whether the goal reflects what they want, and/or what other people want (9 items). All items are measured using a 5-point Likert scale ranging from *Not at all* to *Extremely*. All participants received the same randomized order of questions. A sample item illustrating collaboratively set goals is as follows: “Does support from other people help you when pursuing this goal?” A sample item illustrating other-set (controlled) goals is as follows: “Are you pursuing this academic goal because someone else wants you to?” See Appendix A for the entire Academic Goal Questionnaire.

We had originally intended for the questions asking specifically about social aspects of why a person is pursuing a goal to reflect different types of social influence, controlling as opposed to more collaborative, in order to differentiate social goals that might still be autonomous from those that are not. A factor analysis did not show a distinction between these items however, and therefore subsequent analyses include both types of question, and will refer only to socially-set goals.

Course enjoyment questionnaire. This measure is an adapted version of Pekrun, Goetz, Frenzel, Barchfeld and Perry's (2001) Achievement Emotions Questionnaire (AEQ). The current version, which includes three adapted items from the original and two newly developed items, was devised by a previous honours thesis student (Wang, 2014) to measure Introductory Psychology student's enjoyment of the course. Reliability analyses on this scale show a very high reliability ($\alpha = .89$). A sample item from this questionnaire is as follows: "I enjoy being in my psych 1000 class." See Appendix B for the entire Course Enjoyment Questionnaire. These items are measured on a 5-point Likert scale ranging from *Strongly Disagree* to *Strongly Agree*. All participants received the same randomized order of questions.

Independent and interdependent self scale (IISS) (revised). This measure has two parts. Part A is adapted from the Independent and Interdependent Self Scale (IISS) devised by Lu and Gilmour (2007). Reliability analyses on this scale show a very high reliability; the independent subscale shows an alpha of .86 and the interdependent subscale shows an alpha of .89 (Lu and Gilmour, 2007). The original IISS has a total of 42 items, but a shortened 20-item version is to be used here (10 independent items and 10 interdependent items). Items were chosen based on their factor loadings reported in the original research by Lu and Gilmour, as well as for their apparent fit with our purposes (for example, reflecting the relationship between self and other, as opposed to seeming to reflect purely social concerns). Several items were modified slightly because the original items, translated from Chinese, seemed somewhat awkward or rigid. Most frequently, the word "the" was replaced with the word "a": for example, the item "I believe that people should maintain their independence in the group," was changed to, "I believe that people should maintain their independence in a group." A sample item illustrating interdependence is as follows: "I believe that people close to me are important parts

of my self.” See Appendix C for the entire questionnaire. These items are measured on a 7-point Likert scale ranging from *Strongly Disagree* to *Strongly Agree*.

Part B of this questionnaire is derived from Shulruf, Hattie and Dixon’s (2007) Auckland Individualism and Collectivism Scale (AICS). For the purposes of this study, eight of the items were chosen based on their apparent relevance to the current study’s purposes (i.e., reflecting independence/interdependence), as well as for their good reliabilities in the previous research. The four collectivism items chosen tap the dimensions of advice, harmony and closeness. Reliability analyses on these subscales were generally acceptable; advice had an alpha of .77, harmony had an alpha of .71 and closeness had an alpha of .62 (Shulruf et al. 2007). A sample item illustrating individualism is as follows: “I consider myself as a unique person separate from others.” See Appendix C for the entire questionnaire. The four individualism items chosen tap the dimensions of competitiveness, uniqueness and responsibility. Reliability analyses on these subscales were acceptable; competitiveness had an alpha of .78, uniqueness had an alpha of .76 and responsibility had an alpha of .73 (Shulruf et al. 2007). See Appendix C for sample items. Items for Part B are measured on a 6-point frequency scale ranging from *Never or almost never* to *Always*. All participants received the same randomized order of questions.

Achievement Goals. Participants also completed items from Elliot and Church’s (1997) Achievement Goal Questionnaire, although not as part of this thesis.

Procedure

The entire study was run online via Qualtrics Online Survey Software. All participants signed up for the study online via the SONA System. All timeslots on SONA allowed up to 20 participants to sign-up on any given day. Instructions made it clear that the participant was to complete the study online sometime during the day that they signed up for (i.e., it could be *any*

time that day, but it *had* to be that specific day). When participants signed up to participate, the researcher was notified via email. The researcher then emailed the participant a link, which, when clicked on, brought the participant to the study.

When the participant clicked on the link, the first screen they saw was the consent form. It was mandatory for the participant to click “Agree” at the bottom of the consent form in order to continue on in the study. Additionally, a “Print” button was available for all participants if they wished to have a copy of the consent form for their records. After the consent form, some demographic variables were measured: age, gender, and ethnicity. After the demographic variables, all participants completed the questionnaires in the following order: academic goal questionnaire first; course enjoyment questionnaire second; independent/interdependent questionnaire third. Instructions were given on a separate screen prior to the completion of each questionnaire.

After participants completed the final questionnaire (independent/interdependent), a debriefing form came up on the next screen. A “Print” button was available for all participants on this screen, if they wished to have a copy of the debriefing form for their records. Finally, participants viewed a screen that thanked them for their participation. See Appendix D for a sample of what the final screen looks like. The duration of the study was approximately 30 minutes. All participants have the option of submitting a related assignment for up to 2.5% bonus marks in their Introductory Psychology course. Participants are made aware (via the debriefing form and sign-up poster) that they can either email a completed assignment form to the researcher, or set up a time to meet in person.

Results

Sex Differences

Although there were no specific major hypotheses regarding sex differences, exploratory t-tests were conducted examining sex differences on all of the variables. Only goal framing was found to be significant; there were sex differences in positive framing (M for males = 4.04 and M for females = 4.47, $t(119) = -3.61$, $p = .001$), as well as negative framing (M for males = 2.62 and M for females = 3.16, $t(119) = -2.34$, $p < .05$).

Means and Correlations among Variables

The means and standard deviations for the major variables are indicated in Table 1. Table 2 presents the correlations among the major variables in this study. The following sections will refer to these correlations in accordance with the hypotheses of the study.

Table 1

Means and Standard Deviations of Major Variables

| Variable | Mean | Standard Deviation |
|-------------------|-------------|---------------------------|
| Positive Frame | 4.38 | .56 |
| Negative Frame | 3.05 | 1.04 |
| Socially-Set Goal | 2.79 | .80 |
| Self-Set Goal | 3.62 | .86 |
| Enjoyment | 3.91 | .74 |
| Independence | 5.05 | .50 |
| Interdependence | 4.34 | .75 |

Table 2

Correlations Among Major Variables

| | 1) | 2) | 3) | 4) | 5) | 6) | 7) |
|----------------------|--------|--------|-------|--------|------|------|----|
| 1) Positive Frame | -- | | | | | | |
| 2) Negative Frame | .351** | -- | | | | | |
| 3) Socially-Set Goal | .228* | .433** | -- | | | | |
| 4) Self-Set Goal | .074 | .273** | .152 | -- | | | |
| 5) Enjoyment | .185* | .055 | -.110 | .499** | -- | | |
| 6) Independence | .004 | .170 | .185* | .338** | .094 | -- | |
| 7) Interdependence | .163 | -.050 | .233* | .056 | .071 | .104 | -- |

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Goal Framing and Course Enjoyment

It was predicted that positive and negative goal framing might be differentially associated with course enjoyment. It was predicted that participants who negatively frame would enjoy the course less. Although negative framing is in fact much less related to course enjoyment than positive framing is (see Table 2), this relationship is not significant. Instead, an unexpected but interesting finding is that positive framing was shown to be significantly and positively correlated with course enjoyment, $r(120) = .19, p < .05$ (see Table 2).

Personality and Set-Goals

It was predicted that interdependent people would be more likely to give social reasons for pursuing their specific goals, whereas independent people would give more personal (or self-focused) reasons for pursuing their specific goals. Results show that both of these hypotheses are supported. Interdependence is significantly and positively correlated with socially-set goals, $r(120) = .23, p < .05$ (see Table 2), and is not significantly correlated with self-set

goals. Independence is significantly and positively correlated with self-set goals, $r(120) = .34, p < .01$; it is also significantly, but less strongly correlated with socially set goals $r(120) = .19, p < .05$.

Personality, Set-Goals and Enjoyment

First, and as predicted, it can be seen in Table 2 that self-set (autonomous) goals predicted greater course enjoyment overall, $r(120) = .50, p < .01$. It was also predicted that self-set goals would predict course enjoyment in independent students and that socially-set goals may predict course enjoyment in interdependent students. The first prediction is supported. Using multiple regression, results showed a significant interaction between self-set goals and independence predicting course enjoyment $\beta = 1.79, t(114) = 2.09, p < .05$. Analysing the interaction further, it was found that there is a stronger tendency for independent students (scoring above the median) to enjoy the course more when they are setting their own goals, $\beta = .62, p < .001$, than for people scoring below the median in independence, $\beta = .32, p < .05$. Setting goals oneself was a significant predictor for both groups, but was a much stronger predictor for students high in independence, as predicted.

In contrast, there were no significant results for the second prediction regarding socially-set goals. Socially-set goals were not significantly correlated with course enjoyment (see Table 2), and a test of the interaction between interdependence and socially-set goals predicting enjoyment was not significant.

Discussion

Overall, most of the predictions in this study received support. Independent individuals were more likely to have self-set (autonomous) goals, whereas interdependent individuals were more likely to have goals set either with or by others (socially-set goals). Self-set goals

predicted course enjoyment overall, regardless of personality; however, self-set (autonomous) goals predicted course enjoyment more strongly for individuals higher in independence. An interesting but unexpected finding was that positive framing predicted greater course enjoyment, whereas negative framing was unrelated to enjoyment. The prediction that goals set with or by others (socially-set goals) would predict course enjoyment for interdependent individuals was not supported. It should be noted, though, that other-set (controlled) goals could not be differentiated from goals set *with* others (collaborative goals) in the factor analysis, and therefore our measure may not adequately reflect the latter type of social goal.

The relationship between independence and self-set (autonomous) goals was expected because independent individuals, by definition, strive to be unique and different from others; therefore, it makes sense that someone who strives to be unique and different from others would want to set his or her own goals. The relationship between interdependence and socially-set goals was expected because interdependent individuals, by definition, strive to be with others and make collective decisions with groups as opposed to going against groups; an interdependent person is mutually reliant on others, whereas an independent person is not influenced by other people. Interestingly, the prediction that goals set with or by others (socially-set goals) would predict course enjoyment for interdependent individuals was not supported by the data. Self-set goals, in contrast, predicted greater course enjoyment overall, regardless of personality (although the results were stronger for independent people). This finding seems to provide support for Deci and Ryan's (2008) theory that autonomy is important and necessary for everyone, regardless. This study found that people who set their own goals (i.e., autonomously) enjoy the course more than people who do not set their own goals.

It was unexpected but interesting that positive framing predicted course enjoyment. Previous research shows that negative framing predicts poor performance in students (Roney & Lehman, 2008), so we predicted that this result would be reflected in course enjoyment (positive framing was not found to predict performance). However, the current study found that when students think about the goal (the grade they want to achieve in the course) as something to be attained (rather than something to avoid falling below), they do in fact enjoy their course more. Although the framing literature does not specifically find a lot of support for positive framing's positive impact on student success, this result does make sense in lieu of literature on positive thinking and happiness or life satisfaction. For example, Luhmann, Hawkley and Cacioppo (2014) found that when people are asked to think about their subjective well-being (or happiness in life), people think more about positive things than negative things, so there appears to be a tendency for people to prefer thinking positively rather than negatively when it comes to important things in their life (such as their well-being, or in the case of the current study, a goal that they have for success). It is interesting, however, that enjoyment and performance are influenced by different aspects of goals.

General Conclusions and Implications

In general, all of these findings together suggest some basic things. First, independence and interdependence are distinct personality traits, where one type of individual does indeed strive to be unique and different from others (independence) and the other type of individual is more influenced by others (interdependence). This distinction was clearly reflected in people's tendency to have goals that are more independently set, versus reflecting the influence of other people. However, independent and interdependent people have similarities as well. A common shared reference point for these two personality types is that they both enjoy things more (e.g., a

course) when they autonomously choose/set their goals/make decisions in the way that they want to (e.g., interdependent individuals may *choose* to make decisions *with* others more frequently than independent individuals). Additionally, students apparently enjoy their course more when goals are framed in a positive manner (i.e., as something to be achieved as opposed to something to avoid falling below). These general conclusions have some practical implications for helping people optimize their performance.

First, people working in academic settings should be aware that not everyone sets their goals in the same way—some students may prefer to make decisions by themselves, whereas others may prefer to make decisions with others. Therefore, it is important to be careful not to force students to fit into strict moulds that may not be optimal for their personal success.

Second, students do appear to experience more enjoyment when (irrespective of others) they are allowed to make choices (i.e., have autonomy). Therefore, it is important for schools to be mindful of the way that they present academic requirements (controlled choices vs. free choice), such as fitting into a certain program, so that students do not feel forced into the goals they pursue. Finally, it is important that schools both provide information about the benefits of framing one's goals in a positive manner as well as be mindful of the way that they themselves word certain goals.

Limitations and Future Directions

One of the major limitations of this study was the way that goals were measured. Originally, we had hoped that three constructs (other-set, self-set, and collaboratively-set goals) would emerge from a factor analysis so that our specific hypotheses for each of these types of goals could be examined. Unfortunately, the other-set and collaboratively-set goals had to be combined into one goal (socially-set goals). This compound variable may have influenced some

of the results (e.g., the non-significant finding of socially-set goals predicting course enjoyment in interdependent people). One future direction would be to continue to attempt to create a goal measure that makes these distinctions, and examines possible differences between controlling and collaborative socially-set goals.

Another limitation of this study is that the sample was drawn from first year Psychology 1000 students. This population of students at King's generally has a greater number of females enrolled, so a sex bias towards females was inevitable. Additionally, although in some cases Psychology 1000 is a general course that anyone can take, it may also be an academic requirement for students wanting to continue on in Psychology. Therefore, the imposition of an "academic requirement" of taking a Psychology 1000 course could have confounded the goal-setting results. Different samples of students could be used (e.g., second, third and fourth year psychology students as opposed to merely just first year students, and history and english students as opposed to merely psychology students) to examine whether goal-setting tendencies change over time as well as across disciplines. An additional limitation is that the study was conducted online, which is not a controlled environment.

It would be interesting to analyze the concept of autonomy further. Autonomy seems to be a complicated construct, because two very different personality types (independent and interdependent) can value this quality at the same time. This has interesting implications for values cross-culturally. For example, evolutionarily speaking, how did it come to be that more Eastern cultures came to value (and autonomously *choose*) collaboration with others, whereas more Western cultures came to value (and autonomously *choose*) to make decisions in-spite of others. Both value structures appear to be beneficial/useful in both societies, and yet different cultures prefer one to the other.

Additionally, it would be interesting to examine (in future research) whether or not pure independence is possible. Is it incorrect to say that others, in one way or another and on a daily basis, influence all of us? Essentially, how could one “get away” with acting independently in our “mutually dependent” world? The relationships among autonomy, independence, and social influence are, no doubt, complex when considered in greater depth.

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Appendix A

Part A

Academic Goal Questionnaire

This questionnaire is about goals that people set for themselves for courses that they take in University. What would you say you set for your performance in Psychology 1000 (as of right now)?

1 a) Please check the point on the line below that represents the grade percentage you would set as your goal:

50% 55 60 65 70 75 80 85 90 95

For the goal you indicated above, please answer the following questions:

1 b) How likely do you feel it is that you will be able to reach your goal?

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

1 c) How important is it to you that you reach this goal?

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

2. If you reached the goal, to what extent would you feel:

a) Pleased

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

b) Happy

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

c) Relieved

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

d) Reassured

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

3. If you did not reach this goal, to what extent would you feel:

a) Disappointed

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

b) Saddened

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

c) Ashamed

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

d) Humiliated

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

The following questions are about reasons why people have set certain goals for themselves. Keeping in mind the goal that you have set for your academic performance in Psychology 1000, please rate each of the four reasons in accordance with determining your goal:

4. Are you pursuing this academic goal because somebody else wants you to?

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

5. Are you pursuing this goal because it is an academic requirement (E.g. to enter a program, to get a scholarship)

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

6. Are you pursuing this goal because it is something that is expected of you?

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

7. Are you pursuing this goal in order to motivate yourself to do as well as you can?

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

8. Are you pursuing this goal to assure yourself that you have mastered the course material?

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

9. Are you pursuing this goal because you enjoy the challenge it provides?

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

10. Is this goal shared between yourself and important others in your life?

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

11. Does support from other people help you when pursuing this goal?

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

12. Do others emotionally share in the pursuit of this goal?

| | | | | |
|------------|----------|----------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Very | Extremely |

Appendix B

Course Enjoyment Questionnaire

For the following questions, please indicate your feelings about your experience in the Psych 1000 course.

1. I enjoy being in my psych 1000 class.

| | | | | |
|-------------------|---|---------|---|----------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | | Neutral | | Strongly Agree |

2. I enjoy acquiring new knowledge through the psych 1000 course.

| | | | | |
|-------------------|---|---------|---|----------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | | Neutral | | Strongly Agree |

3. For me, psych 1000 provides a challenge that is enjoyable.

| | | | | |
|-------------------|---|---------|---|----------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | | Neutral | | Strongly Agree |

4. I am usually in a good mood when I am in my psych 1000 class.

| | | | | |
|-------------------|---|---------|---|----------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | | Neutral | | Strongly Agree |

5. Psych 1000 is, overall, a good class.

| | | | | |
|-------------------|---|---------|---|----------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | | Neutral | | Strongly Agree |

Appendix C

Part A

Independent and Interdependent Questionnaire

I believe that people should try hard to satisfy their interests.

| | | | | | | |
|------------------------------|-----------------|------------------------------|---------------------------------------|---------------------------|--------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

I believe that people should have their own ideals and try hard to achieve them.

| | | | | | | |
|------------------------------|-----------------|------------------------------|---------------------------------------|---------------------------|--------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

I believe that people should maintain their independence in a group.

| | | | | | | |
|------------------------------|-----------------|------------------------------|---------------------------------------|---------------------------|--------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

I believe that people should be self-resilient and self-reliant.

| | | | | | | |
|------------------------------|-----------------|------------------------------|---------------------------------------|---------------------------|--------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

I believe that people should express their opinions in public.

| | | | | | | |
|------------------------------|-----------------|------------------------------|---------------------------------------|---------------------------|--------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

I believe that people should be unique and different from others.

| | | | | | | |
|------------------------------|-----------------|------------------------------|---------------------------------------|---------------------------|--------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

I believe that people should retain independence even from their family members.

| | | | | | | |
|------------------------------|-----------------|------------------------------|---------------------------------------|---------------------------|--------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

For myself, I believe that others should not influence my self-identity.

| | | | | | | |
|------------------------------|-----------------|------------------------------|---------------------------------------|---------------------------|--------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

I believe that family and friends should not influence my important life decisions.

| | | | | | | |
|------------------------------|-----------------|------------------------------|---------------------------------------|---------------------------|--------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

I believe that people should stick to their opinions in any circumstances.

| | | | | | | |
|------------------------------|-----------------|------------------------------|---------------------------------------|---------------------------|--------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

I believe that family is a source of our self.

| | | | | | | |
|------------------------------|-----------------|------------------------------|---------------------------------------|---------------------------|--------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

I believe that the success of a group is more important than the success of an individual.

| | | | | | | |
|------------------------------|-----------------|------------------------------|---------------------------------------|---------------------------|--------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

Once you become a member of a group, you should try hard to adjust to the group's demands.

| | | | | | | |
|------------------------------|-----------------|------------------------------|---------------------------------------|---------------------------|--------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

I believe that people should find their place within a group.

| | | | | | | |
|--------------------------|-----------------|--------------------------|-----------------------------------|-----------------------|--------------|-----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

I believe that the group should come first when it is in conflict with the individual.

| | | | | | | |
|--------------------------|-----------------|--------------------------|-----------------------------------|-----------------------|--------------|-----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

I believe that it is important to maintain group harmony.

| | | | | | | |
|--------------------------|-----------------|--------------------------|-----------------------------------|-----------------------|--------------|-----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

We should sacrifice our personal interests for the benefit of the group.

| | | | | | | |
|--------------------------|-----------------|--------------------------|-----------------------------------|-----------------------|--------------|-----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

I believe that people close to me are important parts of my self.

| | | | | | | |
|--------------------------|-----------------|--------------------------|-----------------------------------|-----------------------|--------------|-----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

I believe that people should behave appropriately according to their different social status and roles.

| | | | | | | |
|--------------------------|-----------------|--------------------------|-----------------------------------|-----------------------|--------------|-----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

Belonging to a group is important to my self-identity, or sense of myself.

| | | | | | | |
|--------------------------|-----------------|--------------------------|-----------------------------------|-----------------------|--------------|-----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Strongly Disagree</i> | <i>Disagree</i> | <i>Somewhat Disagree</i> | <i>Neither Agree nor Disagree</i> | <i>Somewhat Agree</i> | <i>Agree</i> | <i>Strongly Agree</i> |

Part B

It is important to consult close friends and get their ideas before making a decision.

| | | | | | |
|----------------------------------|---|---|---|---|---------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| <i>Never or Almost Never</i> | | | | | <i>Always</i> |

Even when I strongly disagree with my group members, I avoid an argument.

| | | | | | |
|----------------------------------|---|---|---|---|---------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| <i>Never or Almost Never</i> | | | | | <i>Always</i> |

It is important to consider the needs of those who work above me.

| | | | | | |
|----------------------------------|---|---|---|---|---------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| <i>Never or Almost Never</i> | | | | | <i>Always</i> |

I have the feeling that my relationships with others are more important than my own accomplishments.

| | | | | | |
|----------------------------------|---|---|---|---|---------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| <i>Never or Almost Never</i> | | | | | <i>Always</i> |

I define myself as a competitive person.

| | | | | | |
|----------------------------------|---|---|---|---|---------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| <i>Never or Almost Never</i> | | | | | <i>Always</i> |

I enjoy working in situations involving competition with others.

| | | | | | |
|----------------------------------|---|---|---|---|---------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| <i>Never or Almost Never</i> | | | | | <i>Always</i> |

I consider myself as a unique person separate from others.

Appendix D

