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INDIVIDUALISM, COLLECTIVISM, AND PERCEPTIONS OF CONTROL ASSOCIATED WITH CONTROL AND CHOICE

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ABSTRACT

To examine participants ratings of perceived control, a partial-replication was conducted with the addition of culture-based covariates (horizontal/vertical, individualism/collectivism). Participants believed they would perform an undesirable task for either a short (2 minutes) or long (20 minutes) time period. Proofreading length was determined by the contents of an envelope selected either by the researcher's coin flip (no choice) or directly by the participant (choice). Participants were told the envelopes contained either the same time periods (no control), or different time periods (control). Results indicated an illusory control effect with the provision of choice, with no impact from the cultural covariates. Implications are discussed.

INTRODUCTION

It is well documented that people strive for control and mastery of their environment, and the benefits of control have received much attention (Seligman, 1975; Schulz, 1976). Much of the research in the area of control has focused on prediction, and maintained that control and prediction are nested together (Geer & Maisel, 1972; Burger & Arkin, 1980; Wortman, 1975). In other words, if one feels control over an important outcome, it also means that outcome is predictable (Schulz, 1976) – that to change the occurrence or duration of electric shocks is to also anticipate when they will occur. The resulting confound implies that one could not know whether higher perceived control was due to controllability of the outcome, predictability of the outcome, or some combination of the two.

Unconfounding Prediction and Control

Nickels et al. (1992) attempted to unconfound prediction and control, but had to reconceptualize the two. Under the reconceptualization, "prediction refers to knowing which outcome will likely occur before it occurs; control refers to exerting an influence over which outcome will likely occur" (p. 160). Under the reconceptualization, one could present controllable outcomes without prediction as "blind responses which make a difference in outcomes" (p.160). Across two

experiments, the separation of prediction and control was successfully demonstrated. Participants in both prediction/control and no-prediction/control conditions provided higher scores on control-associated measures (control, influence, and responsibility) and lower helplessness ratings compared to participants in no-control conditions. The results supported the reconceptualization and the theoretical separation of control and prediction.

Control/Choice Confound

Although the aforementioned study rectified the control and prediction confound, a new confound arose. Specifically, the manipulation of control was confounded with choice as participants given controllability over the outcome also made a choice between options. This implies that one could not know whether higher perceived control was due to controllability of the outcome, choice between options, or some combination of the two (Langlois et al. 2002). Langer's (1975) seminal work on the illusion of control demonstrated that the provision of choice alone was sufficient to produce control-related feelings. Therefore, when people are given a choice, even between options that make no difference (e.g., selecting your own lottery number before the draw), people can still report enhanced perceived control.

In an effort to disentangle controllability from choice, Langlois et al. (2002) hypothesized that participants with controllability will report higher control-related feelings than participants without controllability – even without being able to predict the outcome. The presence of an illusory control effect would be evident however if participants with choice (regardless of controllability) will report higher control-related feelings than participants without choice, regardless of prediction. In a two-experiment study, participants were told they would proofread medical papers for either two minutes or 20 minutes, a time period determined based on the contents of one of two envelopes (marked 'left' and 'right'). Although no proofreading was actually done, participants believed they would proofread for either a more (2-minutes) or less (20-minutes) desirable time period. The envelopes were selected either by the participant (choice) or by the experimenter's coin-flip (no-choice). The independent variables were choice and control, so that participants were randomly assigned to one of three levels therein: choice/control, choice/no-control, and no-choice/no-control. In these conditions, choice-participants selected between envelopes, whereas no-choice-participants received the envelope determined by the experimenter's coin flip. Conditions with control involved different outcomes (e.g., different time periods), whereas conditions with no control involved the same outcomes (i.e., identical time periods in the envelopes).

The dependent variables for this study were participants' self-reported feelings of prediction, control, responsibility, and helplessness. The dependent measures questionnaire was completed after the experimental manipulation. In order to hold prediction of the outcome constant at no-prediction, knowledge of the outcome was withheld from participants until they had completed the questionnaire. Results indicated that to render higher feelings of perceived control, one's choice must make a difference in the outcome (i.e., outcomes must be different). Specifically, participants in the control/choice condition felt more control and responsibility than the other two conditions, which did not differ significantly from each other. Moreover, participants with control (different outcomes) felt more influence than participants without control (same outcomes). Helplessness did not vary significantly among the groups. Overall, the illusory

control hypothesis of elevated feelings of perceived control with simply the provision of a choice (where control and choice were no longer confounded) was disconfirmed.

Control across Cultural Dimensions

The present study is a replication of Langlois et al. (2002) with the consideration of cultural variables, namely the Western-based individualist (personal achievement) vs. Eastern-based collectivist (group accomplishment) dimension. Individualism involves a self-concept that is both autonomous and unbound by one's in-group (e.g., close family and friends). The individualistic person's goals do not necessarily overlap with the group's goals and relationships are only maintained if the benefits and costs are balanced. A collectivistic orientation involves a self-concept that is bounded to the group. Goals typically overlap with the group and when a discrepancy exists, group goals are a priority. Relationships are of the utmost importance and are maintained at all costs (Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis, 1995).

Triandis, McCusker, and Hui (1990) described attributes they called pure individualistic and collectivistic types. Collectivistic people pay more attention to their in-group and behave differently in regards to that group compared to those who are individualistic. The most important in-group is the family. For those who are individualistic, the in-group and the out-group are less defined and therefore, they do not behave as differently between these groups. As previously described, when personal goals are discrepant with group goals, collectivistic people place emphasis on group goals whereas individualistic people place emphasis on personal goals. Given the importance of the in-group for those who are collectivistic, norms are largely derived from one's in-group. For individualistic cultures, personal likes and dislikes are more important. Triandis et al. infer that group norms largely determine social behaviour in collectivistic cultures whereas attitudes are more important in individualistic cultures.

Indeed, differences in control related feelings between collectivistic and individualistic participants seem plausible. Ji, Peng, and Nisbett (2000, p. 944) state that Westerners place so much importance on control "they often fail to distinguish between objectively controllable and uncontrollable events, tend to perceive more control than they actually have, and report mistakenly high levels of predictability of events." Furthermore, Iyengar and Lepper (1999) demonstrated that American children were more motivated to perform a task when they chose that task themselves. In contrast, Asian American children were more motivated to solve a task that their mother chose. In a study on decision-making, Kim and Drolet (2003) investigated the effects of cultural assumptions of choice and uniqueness on the tendency to seek variety in choices. The results showed cultural differences in the likelihood of variety-seeking in regards to choice rules. Those from individualistic cultures demonstrated a tendency to vary choice rules whereas those from collectivistic cultures did not. In short, people from different cultures may respond differently when given control over a choice.

However, Triandis and Gefland (1998) further distinguish the individualist-collectivist dimension according to both horizontal and vertical subcategories. In general, horizontal cultures value equality among members, status is fairly even, and members are seen as similar to one another. Vertical cultures demonstrate inequality and status hierarchy; members are seen as different from one another. This creates four possible types based on the two cultural

dimensions. In horizontal collectivist cultures, the self is viewed as merged with the in-group; members of the in-group are viewed as similar, and equality is emphasized. For vertical collectivist cultures, the self is viewed as an aspect of the in-group, where members are seen as different from one another; inequality is both accepted and expected. For horizontal individualist cultures, the self is viewed as autonomous but equal to other members of the group. Finally for vertical individualist cultures, members are viewed as different, status inequality is expected, and competition remains important (Singelis, et al., 1995).

In the present study, whereas no specific hypotheses were made with respect to culture, it was expected that each of the four cultural covariates would influence the extent to which the three control/choice groups differed from one another. That is, after accounting for the cultural covariates of horizontal/vertical and individualist/collectivist, that the mean differences – expected to be highest among participants with both control and choice – would alter significantly.

METHOD

Participants

Eighty-seven University of Windsor undergraduate students (65 women and 22 men) volunteered to participate in order to attain partial course credit. The mean age was 21.54 years. The sample consisted of 34 Caucasians, 21 Asians, 13 Middle Easterners, 9 African Americans, and 10 participants of mixed or other ancestry. All participants were Canadian-born.

Materials

Two white envelopes with "LEFT" printed on one and "RIGHT" printed on the other contained index cards with the time periods "2 minutes" or "20 minutes" printed on the back in light pencil so as not to be revealed through the envelope. Medium-sized signs (8.5 x 11 inch) were used to provide control- and choice-relevant information to participants. Signs indicating control-relevant information read either "THE ENVELOPES CONTAIN THE SAME TIME PERIOD" or "THE ENVELOPES CONTAIN DIFFERENT TIME PERIODS." Signs indicating choice-relevant information read either "YOUR TIME PERIOD WILL BE DETERMINED BY THE ENVELOPE YOU SELECT" or "YOUR TIME PERIOD WILL BE DETERMINED BY THE THE ENVELOPE SELECTED FROM AN EXPERIMENTER-FLIPPED COIN." These group-relevant signs were placed in the room with the participant, and the experimenter ensured that participants could read and understand them.

A two-dollar Canadian coin – with the words "LEFT" and "RIGHT" affixed to each side on white paper – was used. A sheet of paper contained a list of medical verbiage under the heading "Commonly Misspelled Medical Terms." Under the list was an excerpt from a medical paper. Two large medical textbooks with clearly visible titles were placed on the table in front of the participants.

Design and Procedure

For the present study, participants were led to believe they were participating in a study designed to investigate the effects of personality on proofreading accuracy. All participants received the same instructions from the researcher based on their experimental condition. Upon arrival, participants completed a consent form, and were advised they would proofread medical papers for either a short (2-minute) or long (20-minute) time period. They were then presented with a list of fictitious medical terms and several sentences from a sample medical paper. Prior to the experimental manipulation, participants completed a horizontal/vertical and individualism/collectivism measure (Triandis & Gelfund, 1998). This 32-item questionnaire asked participants to rate their level of agreement or disagreement with several statements on a scale from one to nine (1-strongly agree, 9-strongly disagree). Triandis and Gelfund (1998) report adequate internal consistency and supportive validity for these constructs. Addition of these covariates represents an extension of the replicated study.

Participants were tested individually in a private room. An experimental design with random assignment to three conditions was used. Each condition involved selecting one of two envelopes, and participants were told that they would proofread medical papers for the amount of time indicated in the chosen envelope (either 2 or 20 minutes). In these conditions, participants with control over the outcome were presented with envelopes containing different time periods (outcome); participants with no control were presented with envelopes containing identical time periods (outcomes). Participants in choice conditions selected an envelope themselves whereas participants in no-choice conditions had the envelope selected for them by the experimenter's coin-flip. Thus, participants were randomly divided into three independent groups: Participants in the control/choice condition (n = 31) chose between two envelopes which contained 2 and 20 minute time cards and they did not know which envelope contained which time period. In the no-control/choice condition (n = 27), participants chose between the envelopes and were told that both contained the same amount of time (either 2 or 20 minutes) but they did not know which. In the no-control/no-choice condition (n = 29), participants were told both envelopes contain the same time period but selection was made by the experimenter's coin flip. Participants were deliberately not told what time period they received in order to hold prediction constant at no-prediction.

After experimental manipulations and prior to opening the envelope, participants completed a dependent measures questionnaire. Participants rated their levels of perceived control, responsibility, influence, and helplessness on a scale from 1 to 5 (1-not at all, 5-to a great extent). This questionnaire also included demographic questions as well as manipulation checks to assess their knowledge of their prediction, control, and choice in their given experiemental group; participants who incorrectly answered any of the main manipulation checks were disgarded from analysis. One final check assessed whether participants wanted to proofread for the short (2-minute) time period. The entire process took approximately 30 minutes. After the experiment was completed, participants were fully debriefed by the researcher and informed they would not be proofreading any papers.

RESULTS

A bivariate correlation indicated the dependent variables of perceived control, influence, and responsibility were all negatively correlated with helplessness and positively correlated with

each other (see Table 1). An ANOVA with group (choice/control, choice/no control, no choice/no control) as the independent variable indicated nonsignificant group differences for both influence, F (2, 84) = 2.580, p = .082, and helplessness, F (2, 84) = 1.702, p = .189, but significant group differences for responsibility, F (2, 84) = 3.748, p = .028, and perceived control, F (2, 84) = 8.252, p = .004. Ryan-Einot-Gabriel-Welsch F multiple comparison tests were conducted to investigate the specific differences between the three levels of the independent variable (choice/control, choice/no control, no choice/no control) for control and responsibility. Results indicated that participants with both choice and control reported higher feelings of perceived control (M = 2.90, SD = 1.14) and responsibility (M = 3.13, SD = 1.28) than the no-control groups. In addition, participants with choice but no control reported higher feelings of both perceived control (M = 2.52, SD = 1.40) and responsibility (M = 2.74, SD = 1.48) than participants with no choice and no control (M = 1.86, SD = 1.03; M = 2.17, SD = 1.31, respectively). This would suggest the presence of an illusion of control, produced by choice without control.

In an assessment of the covariates, the bivariate correlation matrix revealed nonsignificant correlations between each of perceived control, influence, and helplessness for all four cultural covariates (horizontal/vertical and individualism/collectivism). As shown in Table 1, there was a significant correlation between horizontal-collectivism and responsibility, r(85) = .25, p = .022; with vertical collectivism approaching significance, r(85) = .20, p = .064. Repeating the means analysis for responsibility with the covariates included, an ANCOVA indicated that after accounting for the horizontal/vertical and individualism/collectivism covariates, the results from the ANOVA were no different, F (2, 80) = 4.535, p = .014. In other words, inclusion of the cultural covariates did not alter the original findings.

DISCUSSION

The results of the present study did not fully replicate those of Langlois et al. (2002). They hypothesized that "even without prediction of outcome, participants with choice of option will report higher-control associated measures than participants with no choice of option" (p. 168). Participants with both choice and control felt more control and responsibility than participants with choice but no control and participants with neither choice nor control. Furthermore, participants with control felt more influence than those without control. These findings disconfirmed the hypothesis that simply making a choice will result in control-related feelings. They concluded that "to feel control, one's actions (e.g., choice of envelope) should make a difference in one's outcome (e.g., proofreading time)" (p. 170). That is, in order to render feelings of perceived control, simply making a choice was not sufficient; one's choice had to make a difference in the desired outcome.

Finally, the present results disconfirmed the hypothesis that inclusion of cultural dimensions of horizontal/vertical, individualism/collectivism would alter the resulting group differences. Although one of the cultural covariates (horizontal-collectivism) was significantly related to one of the control-associated dependent measures (responsibility), its consideration as a covariate did not significantly alter the group differences.

In the present study, although we similarly found the highest ratings of perceived control and

responsibility among those with both control and choice, and the lowest ratings among those with both no-control and no-choice, we also uncovered a unique effect. That is, participants with choice but no control perceived less control and responsibility than those with control but more than those without. In short, we identified an illusory control effect wherein the presence of choice without control can significantly enhance feelings of control and responsibility among participants (Langer, 1975). Although Ji et al. (2002) would contend that Westerners are more susceptible to illusory control due to the importance placed on personal control in Western Society, past research has shown that choice alone does not necessarily produce those feelings (Cramer & Perrault, 2006; Langlois et al., 2002).

Further research is needed to investigate the effects of choice on illusory control. Specifically, conditions under which choice alone leads to illusory control can be investigated. Also, research can investigate differences in susceptibility to illusions of control based on cultural differences (for example, individualism and collectivism). A limitation exists concerning the crossing of choice with control. Without implementing a no-choice/control condition, choice and control are not completely crossed (Langlois et al. 2002). This condition poses methodological difficulties and thus was not included in the study. Future research can investigate situations in which participants feel control without making any choices.

When considering the sample for this study, it is important to note that it was collected at a Canadian university. Although the majority of this sample was non-Caucasians, Western values and belief systems could be internalized by these participants. Perhaps a cross-cultural sample consisting of participants currently from different cultures will yield different results. Furthermore, there is a potential limitation concerning the experimental manipulation. Although it was assumed participants prefer to proofread for a short period (e.g., 2 minutes), perhaps this sample did not have a vested interest in that particular outcome.

AUTHOR BIOGRAPHIES

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APPENDIX A

Please read the following questions and circle the number that best reflects your feelings.

1. How much control did you have in determining whether you work under the short or long time period? (Please circle one of the numbers below).

1 2 3 4 5

Not at all To a great extent

2. How much influence did you have in determining whether you work under the short or long time period? (Please circle one of the numbers below).

1 2 3 4 5

Not at all To a great extent

3. How much responsibility did you have in determining whether you work under the short or long time period? (Please circle one of the numbers below).

1 2 3 4 5

Not at all To a great extent

4. How helpless were you in determining whether you work under the short or long time period? (Please circle one of the numbers below).

1 2 3 4 5

Not at all To a great extent

5. To what extent did you want to receive the short (2 minute) time period? (Please circle one of the numbers below).

1 2 3 4 5

Not at all To a great extent

6. Did you choose the envelope or was it selected by the experimenter's coin-flip? (Please check one of the answers below).

__ I chose __ Experimenter's coin-flip

7. Did both the envelopes contain the same or different time periods? (Please check one of the answers below).

__ same time periods __ different time periods

8. Do you believe you will be proofreading medical papers for this experiment? (Please check one of the answers below).

__ yes __ no

APPENDIX B

	1	2	3	4	5	6	7	*M*	*SD*
1.Control	-	-	-	-	-	-	-	2.44	1.25
2.Influence	.757**	-	-	-	-	-	-	2.22	1.31
3.Responsibility	.733**	.654**	-	-	-	-	-	2.69	1.40
4.Helplessness	-.395**	-.326**	-.321**	-	-	-	-	3.29	1.41
5.HC	.108	.208	.246*	-.125	-	-	-	47.28	6.00
6.VC	-.020	.154	.200	-.141	.479**	-	-	40.70	8.35
7.HI	.064	-.052	.036	-.071	.015	-.045	-	55.71	7.12
8.VI	-.025	.103	.049	.066	.019	.252	.224*	37.20	10.00

Note. H = horizontal; V = vertical; I = individualism; C = collectivism.
*p<.05. **p<.01.