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Student Research Report

# Highlighting the Benefits of Bird Friendly® Certified Coffee: Which Works Best?

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**Highlighting the Benefits of Bird Friendly<sup>®</sup> Certified Coffee: Which Works Best?**

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The University of British Columbia

Course: PSYC 421

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Date: April 13th, 2021

## Executive Summary

This study explores the awareness of Bird Friendly<sup>®</sup> Coffee (BFC) as well as the relationship between different benefits of BFC (aid to farmers, birds/environment, personal health) and purchasing attitudes towards BFC products among UBC students. More specifically, we wanted to explore if highlighting different benefits of BFC will increase students' willingness to purchase the product. We distributed a self-reporting survey to UBC students and asked if they were familiar with the BFC logos prior. We also provided specific information on each benefit of BFC before asking them how willing they were to purchase the products. Due to the lack of demand for BFC, we hypothesized that most UBC students (more than 50%) are unaware of BFC. Knowing that people prioritize self-benefit messages over non-self-benefit messages, we also hypothesized that the highest increase in willingness to purchase BFC would occur when highlighting the personal health benefits associated with it (compared to farmers and nature). Results show that 92.68% of UBC students were unaware of BFC prior to the study. Willingness to purchase BFC did not significantly differ between different BFC benefit conditions. However, there was a significant difference in purchase willingness between coffee drinkers and non-coffee drinkers.

*Keywords:* Bird Friendly Coffee, environmental sustainability, purchasing attitudes, coffee consumption, nudge

# Highlighting the Benefits of Bird Friendly<sup>®</sup> Certified Coffee: Which Works Best?

## Introduction

With the increasing demand for coffee, many coffee farms are preferring sun-grown coffee (i.e., removing tree canopies to grow coffee plants in the sun) over traditional shade-grown coffee (i.e., growing coffee plants under the canopy of trees) (Jha et al., 2014). Although sun-grown coffee can produce more crops, the removal of tree canopies and the use of pesticides are harmful to the nearby ecosystem (Greenberg et al., 1997). Regarding this ongoing issue, the Smithsonian Migratory Bird Center (SMBC) has emphasized the importance of increasing shade-grown coffee consumption (Tangley, 1996; Williams et al., 2021). The Smithsonian Bird Friendly<sup>®</sup> Coffee (BFC) is shade-grown, organic coffee that not only helps conserve migratory birds and other wildlife but also benefits our health and the coffee farmers because of the way it is cultivated and sold (*Bird Friendly Coffee*, n.d.). Although coffee eco-labels are well accepted when consumers are given the opportunity to learn about them (Loureiro & Lotade, 2005), the demands for BFC are extremely low, having an average consumption rate of 3.8% in the US (Williams et al., 2021). Previous research has identified lack of awareness as one of the main barriers to purchasing BFC, followed by cost and availability (Williams et al., 2021). Though the SMBC's marketing strategy relies on mainstream marketing and consumer labels (Raynold et al., 2007), low BFC consumption rates indicate this is not enough. More efficient promotion of BFC is necessary, and it is important to examine what elements of BFC would appeal to potential consumers the most.

Research suggests that learning new information may increase one's purchase willingness of a product (Nayga et al., 2005). However, we were specifically interested in how emphasizing a specific benefit of the product may increase willingness to purchase the product compared to when one is only given the basic information. Nudging is a psychological technique that has proven to effectively engage individuals in pro-environmental behaviours by providing a choice architecture that pushes people towards a certain behaviour (Thaler & Sustein, 2008). Our primary strategy for this study is a form of nudging—more specifically, emphasizing certain qualities of BFC. Advertising messages that emphasize the benefits of food-focused green practices are suggested to be more persuasive than attribute-based messages (Xu & Jeong, 2019), indicating that people may be more drawn to BFC when there is a greater emphasis on benefit-focused messages over fact-focused messages. Furthermore, research has shown that people prioritize self-benefit messages over nonself-benefit messages (Hardeman et al., 2017). With this context, emphasizing the health benefits of BFC should produce the most willingness to purchase BFC.

## Research question

When emphasizing Bird Friendly<sup>®</sup> Certified Coffee (BFC) as a means to aid farmers, birds and the environment, or personal health, which aspect of BFC increases the willingness to purchase the product among UBC students the most?

## Hypothesis

First, we hypothesized that most UBC students (more than 50%) are not aware of BFC. This was because a previous study stated that 62% of bird watchers were unfamiliar with BFC (Williams et al., 2021). Second, we also hypothesized that highlighting the personal health benefits of BFC will produce the most willingness to purchase the actual product among university students in comparison to highlighting the benefits of aiding the farmers or the birds

and environment. These variables were all stated on the SMBC website as BFC's benefits (*Bird Friendly Coffee FAQs*, (n.d.). However, Hardeman et al.'s (2017) research suggests that emphasizing personal health may be the most beneficial.

## Methods

### Participants

Undergraduate students from the University of British Columbia were recruited online for this study. A minimum of 128 participants were required for our experiment to have an effect size of .3 ( $\alpha = .05$ ,  $\beta = .8$ ). Although our original sample consisted of 145 responses, 5 were excluded due to failing the attention check, leaving us with a final sample of 140 responses (87 female, 45 male, 6 non-binary, 2 unanswered). The age of the participants ranged from 18 years of age to 32 years of age with a mean of 21.24 years ( $SD = 2.01$ ). The largest ethnic groups were caucasian (31.4%) and East Asian (31.4%) (see Figure A1). More than half of our participants were coffee drinkers (62.86%,  $M = 1.97$  cups per day,  $SD = 1.03$ , Figure A2), and a large portion of our participants considered themselves environmentalists (42.9%), with the next largest group being neutral on the topic (40%) (see Figure A3).

### Conditions

The independent variable for this study was the type of emphasized benefit. Participants were randomly assigned to 4 conditions; the control condition ( $N = 31$ ), nature condition ( $N = 34$ ), farmer condition ( $N = 38$ ) or personal health condition ( $N = 32$ ). In the survey, participants in all conditions were shown a paragraph that explained how BFC was organic, shade-grown coffee that helped both the environment and humans (Figure A4).

The control group was only given general information about BFC (Figure A4). The other three conditions were given the basic information as well as an additional sentence at the end of the paragraph that emphasizes how consuming BFC will either help: 1) the birds and the environment (i.e., the nature condition), 2) the farmers' living (i.e., the farmer condition), or the participant's own health (i.e., the personal health condition). In the nature condition, emphasis was put on preventing climate change and saving bird habitats (Figure A5). In the farmer condition, emphasis was put on increasing farmers' income (Figure A6). In the personal health condition, emphasis was put on the absence of chemical pesticides and the health benefits associated with consuming pure organic coffee (Figure A7).

### Measures

To measure how well BFC is known amongst UBC students, participants were asked whether they had seen the official Smithsonian BFC logos before they were given any information about BFC. Their response options were "No, I haven't", "Yes, I have, but I do not know what it means," and "Yes, I have, and I know what it means". This question allowed us to understand our participants' degree of prior knowledge on BFC. Next, we hypothesized that highlighting the personal health benefits will lead to higher willingness to purchase BFC than the other benefits when highlighted, like farmers or birds and the environment. Therefore, we measured the willingness to purchase BFC by dividing it into two dependent variables: 'willingness to pay' and 'willingness to try' BFC. 'Willingness to pay' was measured by asking participants how much they would be willing to pay for a BFC coffee package using a \$0 - \$50 scale. 'Willingness to try' BFC was measured using a seven-point likert scale (1 = *not willing*, 7 = *very willing*).

## Procedure

Participants were recruited through various UBC online platforms (e.g., course discord channels, UBC FaceBook groups, group chats) and were asked to fill out a survey on Qualtrics (Appendix B). In order to avoid any confounds of prior BFC knowledge, participants were informed beforehand that the study was about some general coffee labels. The data was collected over 23 days, from March 8th, 2021 to March 30th, 2021. Participants were first asked whether they recognized the logos and then were asked to read a brief informative statement about BFC. After which, they were asked about what they read to check their understanding of the statement. The second part of the survey consisted of the participants filling out how much they would be willing to try and pay for BFC after reading the statement. After completing the first two parts, participants completed a demographic section concluding the survey. Because this survey was conducted online, the attention check was challenging for us to filter as some responses were very brief. After much consideration, we decided to only exclude participants that did not write anything for the attention check or had directly stated they did not properly read the text.

## Results

In total, we received 145 responses to our online questionnaire, of which 5 were removed during data analysis due to failing the attention check in the questionnaire. All data from these 5 participants were excluded and not used.

Supporting our first hypothesis, we found that 92.8% of participants did not recognize BFC logos, with 5.7% having seen it before and not knowing the meaning, and only 1.4% having seen it while knowing what it means.

Our second hypothesis was not supported by the results. A one-way between subjects MANOVA test showed that group conditions had no significant effect on the two dependent variables ( $p = .51$ , Table A1). One-way between subjects ANOVA tests (Table A4) showed that ‘willingness to pay’ did not significantly differ between group conditions ( $F(3, 136) = 1.53, p = .21, \eta_p^2 = 0.03$ ), and ‘willingness to try’ also did not significantly differ between group conditions ( $F(3, 136) = 0.41, p = .75, \eta_p^2 = 0.009$ ). There was a similar range of responses across the conditions for both dependent variables (Table A2, Table A3). The health condition had an average in ‘willingness to pay’ and ‘willingness to try’ that was greater than the other conditions ( $M = 17.65$  CAD;  $M = 5.97$ ), but it was insignificant (see Table A2, Table A3, Figure A8, Figure A9 for descriptives).

A one-way between subjects ANCOVA test showed that age, gender, ethnicity, or being an environmentalist does not significantly affect our findings ( $p > .05$ , see Table A5). However, the ANCOVA test showed that the amount of coffee drank per day significantly covariates with the relationship between group conditions on willingness to try BFC ( $F(1, 125) = 8.78, p = .004, \eta_p^2 = 0.07$ ). An ANOVA post-hoc tukey indicated a significant difference in ‘willingness to try’ between participants who drank 0 cups of coffee a day and 1 cup a day ( $p = .003$ , Table A6), and 0 cups of coffee a day and 2 cups a day ( $p = .02$ , Table A6). The other coffee consumption groups were not significantly different from each other ( $p > .06$ , Table A6 and Figure A10). Furthermore, when asked to rank aspects of coffee that participants valued from highest to lowest, participants valued taste/flavour/aroma the highest (44.3%), followed by quality (24.3%), price (21.4%), sustainability labels (5.7%), brand (3.6%), and country of origin (0.7%).

## Discussion

In this study, we sought to compare which of the different benefits of Bird Friendly<sup>®</sup> Coffee (aid to farmers, birds/environment, personal health) would increase UBC students' willingness to purchase BFC products the most. This study also examined how many UBC students were aware of BFC products. Our results revealed that although individuals prioritize personal health slightly more than helping farmers and saving birds/the environment, none of the emphasized benefits of BFC had a significant effect on an individual's willingness to purchase the products, thus not supporting the second hypothesis. Furthermore, when asked if they recognized the BFC logos, 92.8% of participants responded with a no, showing that a vast majority of UBC students were unaware of the certification and products, in support of the first hypothesis. Overall, our findings suggest that individuals were not aware of BFC prior and an individual's willingness to purchase specialty coffee was not affected by the farmers, the environment, or the personal benefits.

Findings were also taken into consideration with the amount of coffee consumed per day as it is evident that there was a significant difference between participants who consumed zero cups of coffee per day versus participants who consumed one cup or two cups of coffee per day. This suggests that participants' willingness to purchase BFC products can be predicted by whether or not they consume coffee. When our data was analyzed with ANCOVA on solely coffee drinkers, whether one considers themselves an environmentalist yielded significant variation among conditions in willingness to try BFC ( $p = .03$ , see Table A7) instead of coffee consumption. However, the MANOVA results were still insignificant ( $p = .66$ , see Table A8), and due to the small sample size ( $N = 88$ ) it cannot be concluded that this holds any meaningful value.

Through the survey, we also found that participants prioritized the taste when making coffee purchases. Previous studies suggest leading drivers influencing customer consumption and purchasing behavior towards coffee are sensory qualities such as taste and aroma (Samoggia & Riedel, 2018). In addition, the likelihood of purchasing specialty coffee increases when the coffee's aroma is driving the purchase (Servín-Juárez, 2021). Consistent with past research, our findings imply that since university students prioritize the taste of coffee over other factors such as brands and sustainability labels, a more significant emphasis can be placed on the taste of BFC products.

While this study is highly informative on the consumption of BFC, there were limitations. Results may not generalize to other universities depending on how environmentally conscious the university's city is. Our study was done in Vancouver, where environmentalism is relatively prevalent (Marchington, 2012). Though being an environmentalist was not a significant covariate for our results, our study should be replicated in other cities to confirm the generalizability of our results. Furthermore, because the manipulation was done in text form, the text may have been too long for participants to read until the very end, where the actual manipulation was placed, resulting in an ineffective manipulation.

With the limited amount of research on BFC in general, our study attempted to discover consumer habits, purchasing attitudes, and general awareness of the new and upcoming BFC, and provide interesting insights into consumer habits towards environmentally sustainable products. Due to the text form of manipulation in our study, future work could look at the effect of visual stimuli such as infographics on purchasing attitudes for BFC. Furthermore, due to our study results suggesting that participants prioritize the taste of coffee when making purchases, future research could look at the effect of emphasizing the taste of BFC on consumers'

purchasing attitudes. Doing so could provide potentially interesting insight into whether individuals prioritize the taste/flavour over personal health benefits. Lastly, since it was evident that whether or not participants drank coffee daily was a covariate in our study, a future improvement when replicating this study could include recruiting a larger sample of only daily coffee drinkers for further analysis.

### **Recommendations for UBC client**

Three main steps can be suggested for the client.

First, our results suggest that coffee drinkers may be a good target for promoting BFC as they have shown more willingness to try BFC compared to non-coffee drinkers. Hence, not only should BFC be sold at coffee shops, but promotions such as posters and advertisements should be placed near or inside cafes. In regards to implementing BFC promotions on UBC campus, we believe the UBC Nest is a good place to start, as it is one of the buildings that many UBC students access daily. Furthermore, the Nest is located near four of UBC's coffee shops: JJbeans, The Boulevard Coffee Roasting co., Blue Chip Cafe, and Loafe Cafe.

Second, active marketing is encouraged to promote BFC on UBC campus. Research shows that promotion and advertising play the principal role in attracting customers when it comes to coffee purchasing (Huang & Dang, 2014). Though lack of awareness is not the sole reason for low BFC demands (Williams et al., 2021), the fact that almost 93% of UBC students were unaware of BFC indicates that this may be the biggest and most urgent barrier to overcome. Therefore, it is important to address this lack of awareness by increasing the frequency of exposure to BFC in offline settings as well as social media platforms.

Finally, changes in strategies on how BFC is fundamentally promoted and sold could be beneficial. Results show people tend to prioritize taste/flavour over brands and sustainability labels. Therefore, placing a greater emphasis on the flavour of BFC to coffee drinkers could be a promotion tactic. Furthermore, although BFC is currently only sold in whole beans or grounded beans (*Buy Bird Friendly Coffee Online*, n.d.), roughly half the participants stated that they have never purchased coffee beans to make coffee at home (Figure A11). Therefore, we suggest BFC include products in an easier, more ready-to-make form, such as an instant coffee, so that its convenience encourages students to consume BFC at home.

In conclusion, we believe our research can be used to provide further insight into effective strategies for BFC promotions at UBC. We hope to nudge UBC students towards more conscious and sustainable coffee-consuming behaviours by utilizing the aforementioned strategies, ultimately promoting sustainable use of terrestrial ecosystems.



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## Appendix A

**Table A1**

*MANOVA Results*

MANOVA						
MANOVA: Pillai Test						
Cases	df	Approx. F	Trace <sub>Pillai</sub>	Num df	Den df	p
(Intercept)	1	1253.796	0.949	2	135.000	< .001
Group condition	3	0.880	0.038	6	272.000	0.510
Residuals	136					

**Table A2**

*Descriptive Statistics for the Amount Participants are Willing to Pay for BFC.*

Descriptives - Willingness to pay for BFC (CAD)

Group condition	Mean	SD	N
Control	17.645	9.105	31
Environment	15.794	7.010	34
Farmers	16.026	6.724	38
Health	19.219	9.928	32

*Note.* No significant difference was found between groups.

**Table A3**

*Descriptive Statistics for Willingness to Try BFC.*

Descriptives - Willingness to try BFC

Conditions	Mean	SD	N
Control	5.742	1.237	31
Environment	5.824	1.290	34
Farmers	5.632	1.822	38
Health	5.969	1.307	32

*Note.* No significant difference was found between groups.

**Table A4**

*ANOVA Tables Within MANOVA*

**ANOVA**

ANOVA: Willingness to pay for BFC (CAD)

Cases	Sum of Squares	df	Mean Square	F	p
(Intercept)	41314.464	1	41314.464	620.950	< .001
Group condition	305.876	3	101.959	1.532	0.209
Residuals	9048.660	136	66.534		

ANOVA: Willingness to try BFC

Cases	Sum of Squares	df	Mean Square	F	p
(Intercept)	4651.779	1	4651.779	2162.120	< .001
Group condition	2.619	3	0.873	0.406	0.749
Residuals	292.603	136	2.151		

**Table A5**

*ANCOVA Results*

**ANCOVA**

ANCOVA - Willingness to try BFC

Cases	Sum of Squares	df	Mean Square	F	p	$\eta_p^2$
Conditions	0.302	3	0.101	0.052	0.984	0.001
Cups of coffee per day	16.919	1	16.919	8.778	0.004	0.066
Have you purchased coffee beans before?	1.258	1	1.258	0.653	0.421	0.005
Age	0.389	1	0.389	0.202	0.654	0.002
Gender	0.802	1	0.802	0.416	0.520	0.003
Ethnicity	2.383	1	2.383	1.236	0.268	0.010
Consider oneself as environmentalist	0.784	1	0.784	0.407	0.525	0.003
Residuals	240.936	125	1.927			

Note. Type III Sum of Squares

**Table A6**

*ANOVA Post Hoc Tukey Results for Cups of Coffee Consumed Per Day.*

## Post Hoc Tests

### Standard

#### Post Hoc Comparisons - Cups of coffee per day

		Mean Difference	SE	t	P <sub>Tukey</sub>
1	2	-0.953	0.260	-3.671	0.003
	3	-1.261	0.414	-3.045	0.023
	4	-1.190	0.554	-2.148	0.206
	5	-1.571	0.593	-2.649	0.067
2	3	-0.308	0.408	-0.756	0.943
	4	-0.237	0.549	-0.431	0.993
	5	-0.617	0.588	-1.049	0.832
3	4	0.071	0.637	0.112	1.000
	5	-0.310	0.671	-0.461	0.991
4	5	-0.381	0.765	-0.498	0.987

Note. P-value adjusted for comparing a family of 5

Note. 1 = 0 cups per day, 2 = 1 cup per day, 3 = 2 cups per day, 4 = 3 cups per day, 5 = 4 cups or more per day

## Table A7

### ANCOVA Results for Willingness to Try - Excluding 0 Cups of Coffee Per Day Responses

#### ANCOVA - Willingness to try BFC

Cases	Sum of Squares	df	Mean Square	F	p	$\eta_p^2$
Group condition	0.175	3	0.058	0.058	0.981	0.002
Cups of coffee per day	2.592	1	2.592	2.590	0.112	0.033
Have you purchased coffee beans before?	0.397	1	0.397	0.396	0.531	0.005
Age	0.139	1	0.139	0.139	0.710	0.002
Gender	0.383	1	0.383	0.382	0.538	0.005
Ethnicity	1.644	1	1.644	1.642	0.204	0.021
Consider oneself as environmentalist	4.835	1	4.835	4.830	0.031	0.060
Residuals	76.074	76	1.001			

Note. Type III Sum of Squares

## Table A8

### MANOVA Results Excluding 0 Cups of Coffee Per Day Responses

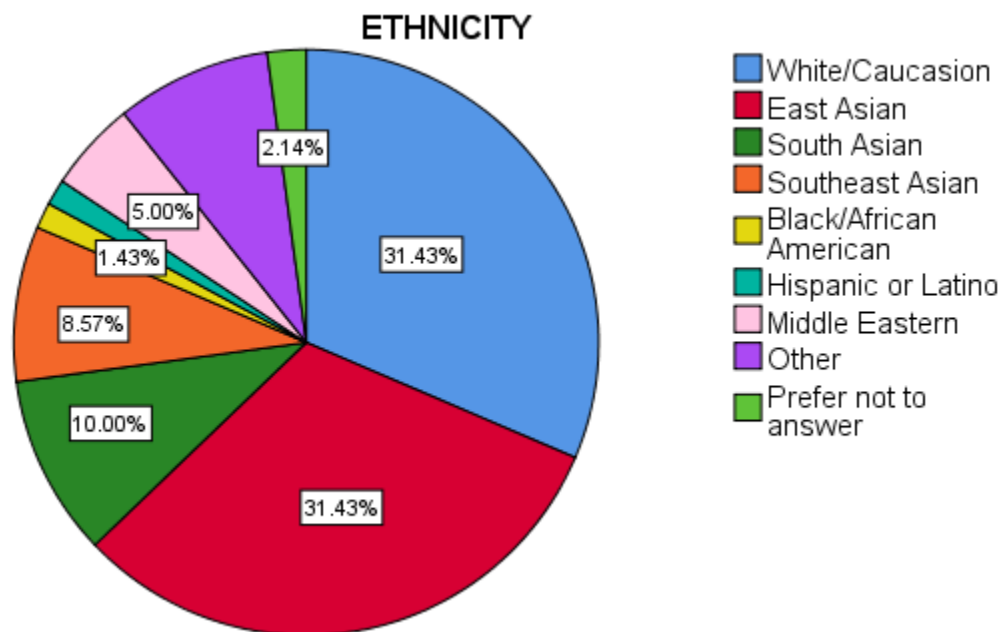
## MANOVA ▼

MANOVA: Pillai Test

Cases	df	Approx. F	Trace <sub>Pillai</sub>	Num df	Den df	p
(Intercept)	1	1658.568	0.976	2	83.000	< .001
Group condition	3	0.688	0.048	6	168.000	0.659
Residuals	84					

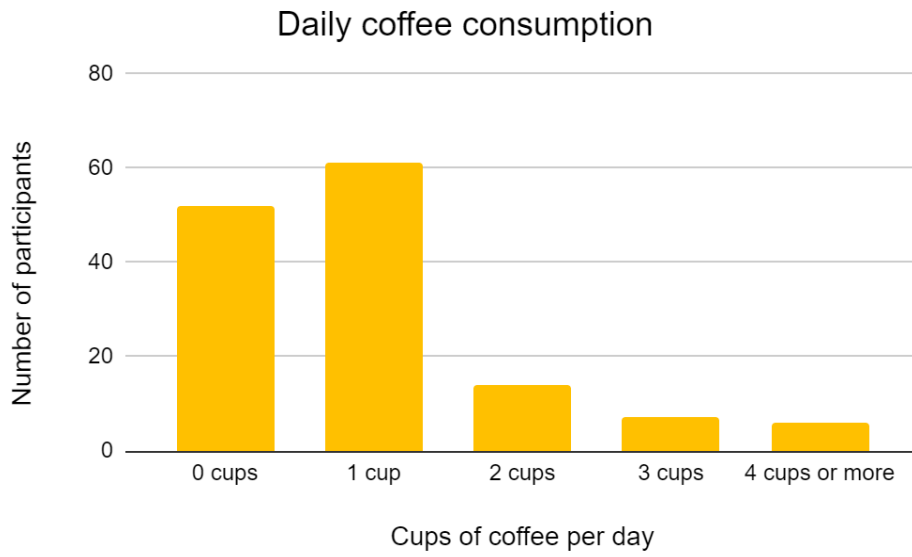
**Figure A1**

*Pie Chart of Ethnicity of Participants*



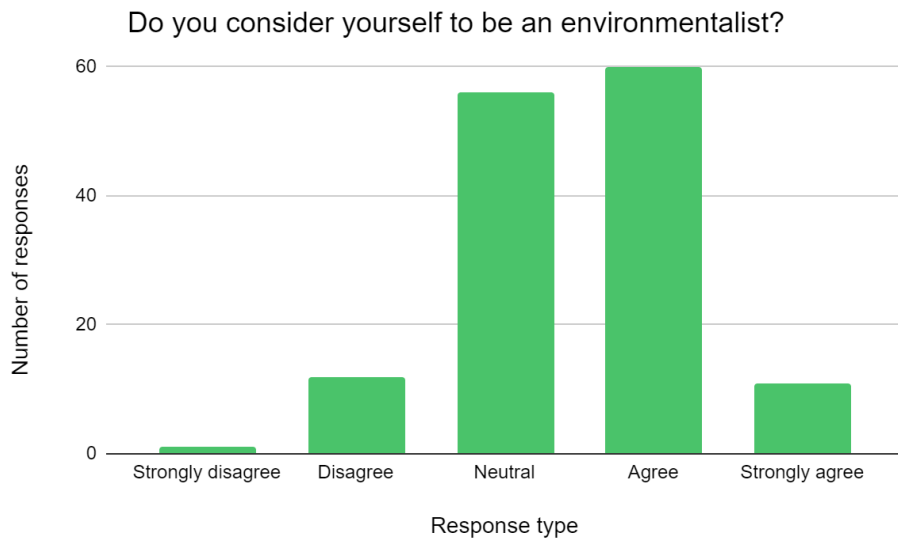
**Figure A2**

*Bar Graph of Daily Coffee Consumption.*



**Figure A3**

*Bar Graph for Identifying as an Environmentalist*



**Figure A4**

*Basic Information about BFC*

**Here is some information about the coffee that has these logos. Please read the text carefully - you will be asked questions related to this text.**

This coffee comes from farms that provide good, forest-like habitats for birds. They are shade-grown, meaning the coffee is planted under a canopy of trees, rather than land that has been cleared of all other vegetation. They are also certified organic, meaning they are grown without the use of chemical pesticides that are harmful to the environment and humans. The certification gives growers access to gourmet market price premiums, and the timber and fruit trees on shade coffee farms provide farmers with additional income.

### **Figure A5**

#### *Nature Condition Manipulation*

By purchasing this coffee, you would be slowing climate change and helping birds by helping maintain 37,000 acres of forested habitat for 71 bird species.

### **Figure A6**

#### *Farmer Condition Manipulation*

By purchasing this coffee, you would be helping 5,100 farmers earn additional income as this type of certified coffee pays farmers more for their crops.

### **Figure A7**

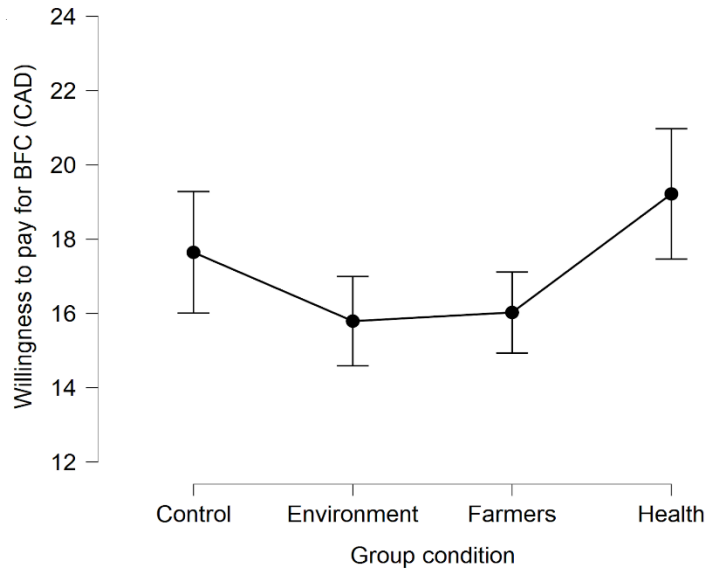
#### *Health Condition Manipulation*

Some other certificates allow product dilution with non-certified coffee, with as little as 30% being certificate standard. By purchasing this coffee, you would be improving your health by avoiding chemical pesticides as this coffee promises a 100% product purity.

### **Figure A8**

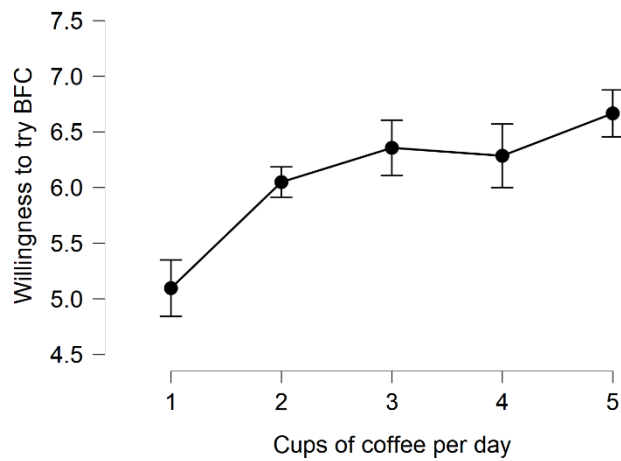
*Scatter Plot of the Relationship Between Willingness to Pay for BFC and the Different Conditions.*





**Figure A9**

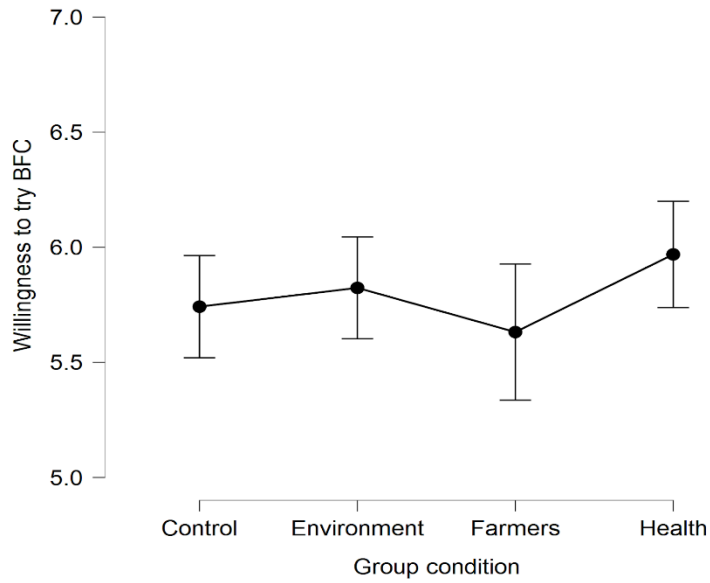
*Scatter Plot of the Relationship Between Willingness to Try BFC and the Different Conditions.*



*Note.* No significant difference was found between groups.

**Figure A10**

*Scatter Plot of the Relationship Between Willingness to Try BFC and Cups of Coffee Consumed Per Day*

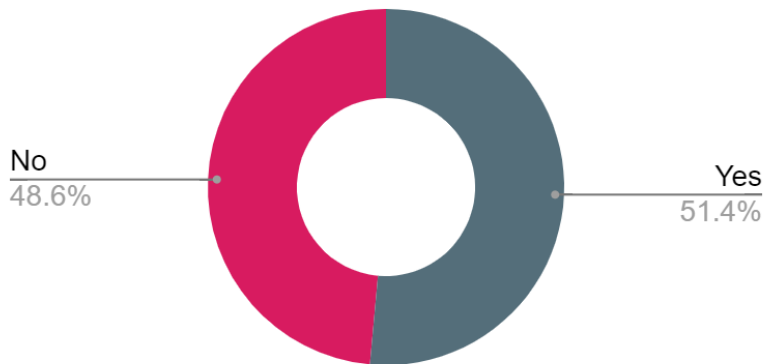


Note. Significant difference was found between 1 and 2 ( $p = .003$ ), and 1 and 3 ( $p = .02$ )

### Figure A11

*Pie Chart of Previous Coffee Bean Purchasing Experience*

Have you ever purchased coffee beans to make coffee at home?



Note. Yes = 72 responses, No = 69 responses

## Appendix B

### Qualtrics survey

---

*Start of Block: Consent*

(\*Image of consent form was shown.)

Q1.

- I consent to participate in the study.

*End of Block: Consent*

---

*Start of Block: Introduction*

**This is a survey about coffee labels.**

Q2. **Have you seen these logos before?**



- Yes, I have, and I know what it means.
- Yes, I have, but I don't know what it means.

- o No, I haven't.

*End of Block: Introduction*

---

**\*Question 3 & 4 differ depending on Control/Environment/Birds/Personal Health**

Start of Block: Control

**Q3. Here is some information about the coffee that has these logos. Please read the text carefully - you will be asked questions related to this text.**

This coffee comes from farms that provide good, forest-like habitats for birds. They are shade-grown, meaning the coffee is planted under a canopy of trees, rather than land that has been cleared of all other vegetation. They are also certified organic, meaning they are grown without the use of chemical pesticides that are harmful to the environment and humans. The certification gives growers access to gourmet market price premiums, and the timber and fruit trees on shade coffee farms provide farmers with additional income.

*-----Page Break-----*

Q4. Please write down 1-2 things you remember from the previous text.

---

End of Block: Control

---

Start of Block: Farmers

**Q3. Here is some information about the coffee that has these logos. Please read the text carefully - you will be asked questions related to this text.**

This coffee comes from farms that provide good, forest-like habitats for birds. They are shade-grown, meaning the coffee is planted under a canopy of trees, rather than land that has been cleared of all other vegetation. They are also certified organic, meaning they are grown without

the use of chemical pesticides that are harmful to the environment and humans. The certification gives growers access to gourmet market price premiums, and the timber and fruit trees on shade coffee farms provide farmers with additional income.

By purchasing this coffee, you would be helping 5,100 farmers earn additional income as this type of certified coffee pays farmers more for their crops.

-----Page Break-----

Q4. Please write down 1- 2 things you remember reading about in the previous text.

---

*End of Block: Farmers*

-----

*Start of Block: Environment*

Q3. Here is some information about the coffee that has these logos. **Please read the text carefully - you will be asked questions related to this text.**

This coffee comes from farms that provide good, forest-like habitats for birds. They are shade-grown, meaning the coffee is planted under a canopy of trees, rather than land that has been cleared of all other vegetation. They are also certified organic, meaning they are grown without the use of chemical pesticides that are harmful to the environment and humans. The certification gives growers access to gourmet market price premiums, and the timber and fruit trees on shade coffee farms provide farmers with additional income.

By purchasing this coffee, you would be slowing climate change and helping birds by helping maintain 37,000 acres of forested habitat for 71 bird species.

-----Page Break-----

Q4. Please write down 1- 2 things you remember reading about in the previous text.

*End of Block: Environment*

---

*Start of Block: Health*

**Q3. Here is some information about the coffee that has these logos. Please read the text carefully - you will be asked questions related to this text.**

This coffee comes from farms that provide good, forest-like habitats for birds. They are shade-grown, meaning the coffee is planted under a canopy of trees, rather than land that has been cleared of all other vegetation. They are also certified organic, meaning they are grown without the use of chemical pesticides that are harmful to the environment and humans. The certification gives growers access to gourmet market price premiums, and the timber and fruit trees on shade coffee farms provide farmers with additional income.

Some other certificates allow product dilution with non-certified coffee, with as little as 30% being certificate standard. By purchasing this coffee, you would be improving your health by avoiding chemical pesticides as this coffee promises a 100% product purity.

---

*Page Break*

---

**Q4. Please write down 1- 2 things you remember reading about in the previous text.**

---

*End of Block: Health*

---

*Start of Block: Measures*

**Q5. After reading this, how much are you willing to pay for a coffee bag that has these logos? (\*340g will make approximately 16 cups of 12 oz coffee.)**



0 - 50\$

CAD\$



Q6. How willing are you to try this coffee?

- Not willing at all
- Somewhat unwilling
- A little unwilling
- Neither
- A little willing
- Somewhat willing
- Very willing

*End of Block: Measures*

---

*Start of Block: Demographics*

Q7. On average, how many cups of coffee do you drink per day?

- 0 cups
- 1 cup
- 2 cups
- 3 cups
- 4 cups or more

Q8. Have you ever purchased coffee beans to make coffee at home?

- Yes
- No

Q9. When purchasing coffee, how would you prioritize the following qualities? Drag the options and rank them from most important (1) to least important (6).

\_\_\_\_\_ Quality

\_\_\_\_\_ Price

\_\_\_\_\_ Brand

\_\_\_\_\_ Taste / flavor / aroma

\_\_\_\_\_ Country of origin

\_\_\_\_\_ Sustainability labels

-----*Page Break*-----

Q10. What is your age?

---



Q11. What is your gender?

- Male
- Female
- Non-binary / third gender
- Prefer not to answer

Q12. Which ethnicity do you identify with?

- White / Caucasian
- East Asian
- South Asian
- Southeast Asian
- Black / African American
- Hispanic or Latino
- Middle Eastern
- Indigenous
- Multiple or other. Please specify: \_\_\_\_\_
- Prefer not to answer

Q13. Do you consider yourself to be an environmentalist?

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

*End of Block: Demographics*

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## **Appendix C**

### **Contribution of each team member**

William: Research, presentation, presentation slides, wrote results portion of the report and edited the final report.

Sissie: Research, presentation slides, wrote the recommendations portion of the report and edited the final report.

Linda: Research, proposal, data collection, presentation, presentation slides, wrote the discussion portion of the report and edited the final report.

Joyce: Research, presentation, presentation slides, wrote the introduction portion of the report and edited the rest, arranged meetings with TA and professor.

Jessica: Research, presentation slides, wrote the methods section of the report and edited the final report.

### **Difficulties during study**

There were some difficulties at the beginning of our study due to miscommunications with the client, along with the discrepancy between what our clients wanted versus what our course required us to do. However, the issue was resolved within the first few weeks of the project.