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Influence of consumer ethnocentrism on willingness to pay for domestic and imported prickly pear jam

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The country-of-origin label (COOL) certifies that a product comes from a specific country. In the United States, there is a mandatory COOL law requiring retailers to include such a label in various agricultural products. There are a plethora of studies exploring consumer behavior surrounding COOL. In their seminal paper, Obermiller and Spanjenberg (1989) identified three types of COOL effects on consumer behavior: cognitive, affective, and normative. Their framework describes COOL as only a part of a complicated interactive decision-making process and not as an isolated effect. The vast majority of the research examining the influence of COOL on willingness to pay (WTP) has been focused on beef (Umberger 2003; Loureiro and Umberger, 2003), popular fruits and vegetables (Mabiso et al. 2005; Darby et al. 2006), and wine (Skuras and Vakrou, 2002).

Most of these previous studies are limited to identifying the effect of the existence of COOL on consumer behavior. Hence, it is still not known what other factors impact consumers' behavior in the presence of a COOL. Furthermore, research to date has not yet explored the effect of a COOL on WTP for a novel food product. The use of popular commodity products with distinct and known characteristics based on the country of origin may introduce endogeneity when exploring the effect of COOL and question the reliability of the estimates derived. In addition, prior research has not concluded on the socio-demographic characteristics that play a definite role in consumer behavior regarding COOL. To illustrate, per Loureiro and Umberger (2003), higher education and income individuals exhibited negative WTP for a mandatory COOL program in all products. On the other hand, Greek consumers of higher education and income were willing to pay a price premium for wines with COOL (Skuras and Vakrou, 2002).

There are three primary objectives of this study: 1. To elicit the willingness-to-pay (WTP) for prickly pear jam subject to country-of-origin label (COOL), specifically Greek and Italian. Unlike previous studies, this is the first study comparing WTPs subject to COOLs for a novel food product such as the prickly pear jam. 2. To examine consumer ethnocentrism's influence, or lack thereof, on consumers' WTP for prickly pear jam with specific COOL labeling. 3. To extract the demand curves for prickly pear jam with Greek COOL and prickly pear jam with Italian COOL.

We divided the questionnaires into two sections; prickly pear jam made abroad and prickly pear jam made domestically. Each section was divided into five price groups. Every respondent had to answer only one type of questionnaire, with one price group and one country of origin (Greek or Italian). The data collection involved 200 personal interviews, small in duration, at a wide array of grocery stores and shopping malls within ten distinct areas of the district of Attica.

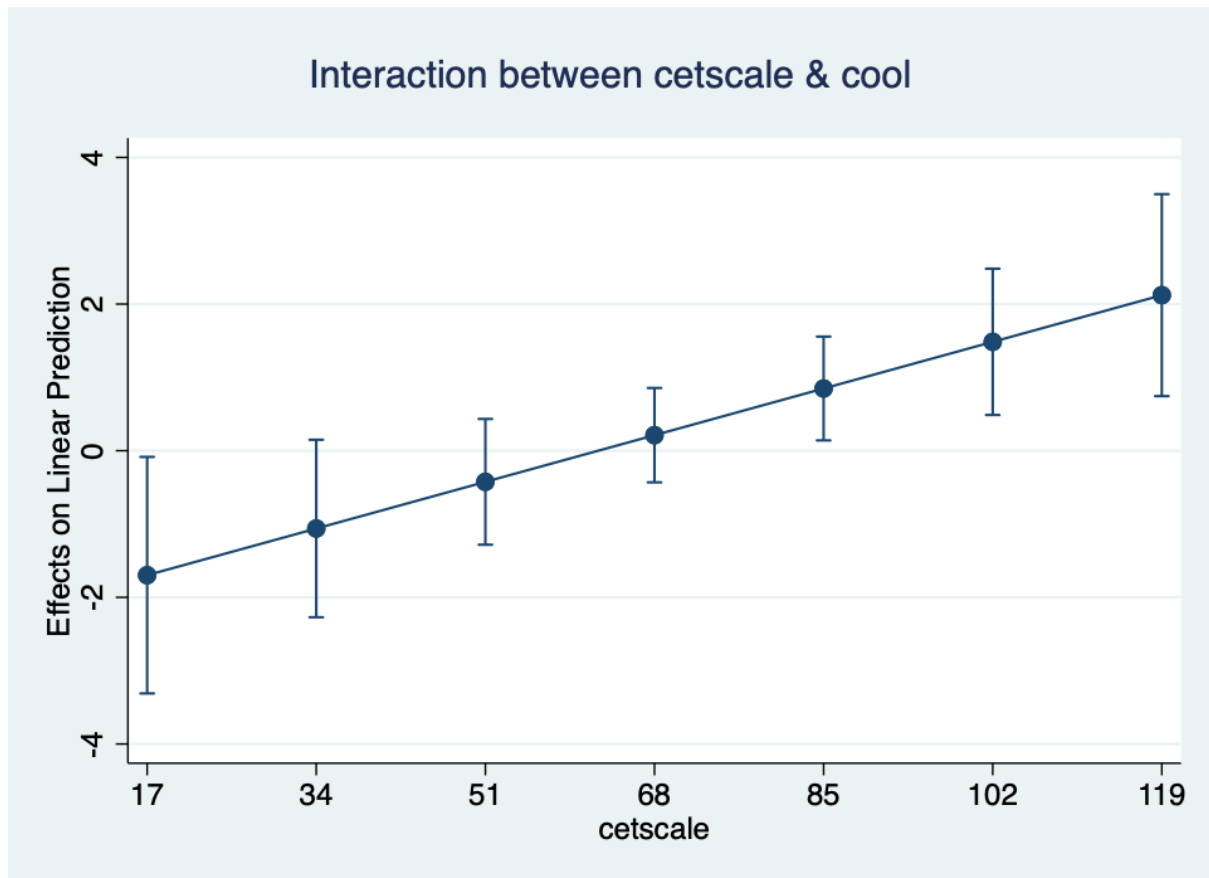
Specifically, the questionnaire consisted of 4 parts. In the first part, we provided participants with information regarding the prickly pear fruit. Subsequently, and to mitigate hypothetical bias, we included two ex-ante bias mitigation methods: a cheap talk script (Bulte et al., 2005) and a consequentiality script (Vossler and Watson, 2013). Following those scripts, the consumers were asked to respond to a single-bounded dichotomous choice question, in which they were asked to state if they would be willing to pay or not a specific price for a jar of prickly pear jam (Bishop and Heberlein, 1979). Half of the participants had to state their WTP for a Greek labeled product and the other half for an Italian labeled one. The second part of the questionnaire consisted of 17 questions. These questions aimed to measure consumer ethnocentrism and how it affects choices. Those 17 questions compose the CETSCALE (Consumer Ethnocentric Tendencies Scale) created by Shimp and Sharm (1987). This widespread scale was initially used in American audiences, but it has confirmed applicability in multiple countries (Netemeyer et al. 1991). Finally, the third and fourth parts of the questionnaire consisted of questions regarding purchasing habits, price sensitivity, and socio-demographic characteristics.

Our results indicated that Greek consumers are willing to pay a price premium for prickly pear jam with Greek COOL relative to the prickly pear jam with Italian COOL. This suggests that identifying the country of origin increases the WTP for a domestic product compared with an imported one. Most notably, our results also indicate that the higher the ethnocentrism tendency of a Greek individual, the greater the predictive WTP for prickly pear jam with Greek COOL. On the contrary, consumers with a low tendency of ethnocentrism are willing to pay a price premium for prickly pear jam with Italian COOL regarding prickly pear jam with Greek COOL. This evidence provides additional insights into the behavioral economics literature by reporting robust conclusions on whether consumer ethnocentrism affects WTP estimates. Relevant implications for the mandatory COOL labeling programs are also discussed.

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Appendix A: Figure A1 – Graphical representation of $\frac{\partial WTP}{\partial cool}$ and 95% confidence intervals for various values of *cetscale*



Appendix B: Questionnaire utilized for data collection

Date: _____ Start Time: ____: ____

Area: _____

1. Are you the main buyer of food supplies in your household? ☐ Yes ☐ No
2. Are you aware of the prickly pear fruit? ☐ Yes ☐ No

Prickly pear is the fruit produced from the cacti tree of prickly cactus which grows in many areas of Italy, but also in other Mediterranean countries such as Greece. It is very tasty and beneficial for the human body due to the fact that it is rich in dietary fibers and vitamins. In addition, its consumption might be beneficial to adults who face diabetes. Prickly pear jam is one of the most popular sub products of prickly pear. It is produced from the fruits of the prickly cactus, and it is mainly distributed in the market by rural cooperatives and small businesses of organic products.

In a minute, you will be asked if you would be willing to pay a specific amount of money to buy prickly pear jam.

This question will be hypothetical. In fact, you will not have to pay anything. Generally speaking, it is hard answering hypothetical questions. People usually declare that they are willing to pay a higher amount of money than they would actually do.

A reason for this behavior is that only at the paying time do they consider the money loss and the fact that this money will not be available for other purchases. Thus, when the question is subjective, it is easier to exaggerate their answer.

Before your answer to the willingness to pay question, I would like you to think carefully if you are genuinely willing to pay for prickly pear jam, the exact price you will be asked, and consider the fact that this amount of money will not be available for purchases of other goods.

We want to inform you that the results of this research program will be shared with producers, merchants, and retailers. Moreover, they will be published and available to every consumer. Therefore, this research could influence the decision of the producers, merchants, and retailers about the adoption of the **Country-of-Origin** label on their products and the average price of the prickly pear jam.

3. I would like you to consider that a 350 grams prickly pear jam jar is available with a Greek Country of Origin Label in the market. [show photo. 1].

Would you be willing to pay _____€ to purchase it?

☐ Yes ☐ No

4. On a scale from 1 to 10, where 1 means “not at all” and 10 “very much,” how certain are you of the answer given in the previous question?

Not at all									Very much
1	2	3	4	5	6	7	8	9	10

5. In which grade do you believe your answers will be considered by the producers, merchants, and retailers?

Not at all	Not really	Undecided	Somewhat	Very much
1	2	3	4	5

6. Please answer the following questions by marking the square at the right, a number from 1 to 7, where:

1=Strongly agree, 2=Agree, 3=Rather agree, 4=Neither Agree nor Disagree, 5=Rather Disagree, 6=Disagree, 7=Strongly disagree.

1.	Italian people should always buy Italian-made products instead of imports.	1	2	3	4	5	6	7
2.	Only those products that are unavailable in Italy should be imported.	1	2	3	4	5	6	7
3.	Buy Italian-made products. Keep Italy working.	1	2	3	4	5	6	7
4.	Italian products, first, last and foremost.	1	2	3	4	5	6	7
5.	Purchasing foreign-made products is anti-Italian.	1	2	3	4	5	6	7
6.	It is not right to purchase foreign-made products, because it puts Italians out of jobs.	1	2	3	4	5	6	7
7.	A real Italian should always buy Italian-made products.	1	2	3	4	5	6	7
8.	We should purchase products manufactured in Italy instead of letting other countries get rich out of us.	1	2	3	4	5	6	7
9.	It is always better to purchase Italian products.	1	2	3	4	5	6	7
10.	There should be very little trading or purchasing of goods from other countries unless out of necessity.	1	2	3	4	5	6	7
11.	Italians should not buy foreign products, because this hurts Italian business and cause unemployment.	1	2	3	4	5	6	7
12.	Barriers should be put on all imports.	1	2	3	4	5	6	7
13.	It may cost me in the long-run but I prefer to support Italian products.	1	2	3	4	5	6	7
14.	Foreigners should not be allowed to put their products in our markets.	1	2	3	4	5	6	7
15.	Foreign products should be taxed heavily to reduce their entry into Italy.	1	2	3	4	5	6	7

16.	We should buy from foreign countries only those products that we cannot obtain within our own country.	1	2	3	4	5	6	7
17.	Italian consumers who purchase products made in other countries are responsible for putting their fellow Italians out of work.	1	2	3	4	5	6	7

7. Please mark how probable you consider the following.

	Not probable at all	Low probability	Neither probable nor improbable	Probable	Extremely probable
People have the tendency to exaggerate in their answers in hypothetical questions, where there is not actual economic sacrifice (exchange of money with products). What is the probability of you exaggerating through your answers in this particular survey?	1	2	3	4	5
How probable is, from your point of view, that other consumers who participated in this survey exaggerated in their answers?	1	2	3	4	5

8. How often do you buy jam?

Not at all	Once per month	2-3 times per month	Once a week	2-3 times per week	More often than 2-3 times per week
1	2	3	4	5	6

9. Is there anyone who produces jam in your household?

☐ Yes ☐ No

10. How important do you consider the role of the prices in making your decisions when you buy food products?

Not important at all	Little Important	Medium Important	Important	Very Important
1	2	3	4	5

11. What is your age?

How many people are included in your household except yourself? _____

12. What is your gender?

Male ☐ Female ☐

13. What is your educational level?

Primary School	Secondary School	High school	Undergraduate Student or 2-years degree	University or College	Master's Degree/PhD
1	2	3	4	5	6

14. Considering the fact that the **average annual after taxes wage** in Italy is 12,300€, which of the following better describes the current economic status of your household?

Very bad	Bad	Under Average	Average	Above Average	Good	Very good
1	2	3	4	5	6	7

End Time: ____: ____

Appendix C: Photos of products used during data collection

