

**The informational and signaling impacts of labels: experimental evidence from India on GM foods\***

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**ONLINE APPENDIX**

**EXPERIMENT INSTRUCTIONS**

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## GENERAL INSTRUCTIONS

Hello and welcome to this experiment. In today's session you have to make certain purchase decisions and depending on your decision and chance you will purchase a certain product.

**You have been endowed with 200 units of lab currency denoted as Francs (Fr.). These Francs convert to Indian Rupees at the rate of 1 Fr. = Re. 0.25 (25 paise).**

If you make no decision in the experiment or do not get to buy a product you may cash your full endowment of 200 Fr. and take home Rs 50. However you may want to spend a part of your endowment in purchasing the product(s) that are up for sale. Any Francs you do not spend are converted to INR at the exchange rate above and given to you to take away from the experiment.

Please remember that your responses are confidential and the raw data collected from this experiment will not be given to anyone outside this project. For purposes of confidentiality you will be identified only by your ID given on the top right hand corner of this page. This experiment is one of voluntary participation. If at any point you feel uncomfortable participating in it you are welcome to indicate this to the experimenter and leave the session.

Please raise your hands if you have any questions, otherwise we are ready to move on to the main part of the experiment.

You have been given a sheet that elicits some information about yourself. Please fill that in and return it to us.

You have also been given a form that requests your consent for participating in the experiment. Please sign this and return it to us. The amount that is due to you will be filled in after the experiment when we can determine your winnings.

**Your ID number:** \_\_\_\_\_

**Some Questions about Yourself**

In this survey most of the questions asked are descriptive. We will not be grading your answers and your responses are completely confidential. Please think carefully about each question and give your best answers.

1. What is your AGE? \_\_\_\_\_ years
  
2. What is your gender? (Circle one number.)  
  
01 Male  
02 Female
  
3. From which city / town did you complete your school leaving exam (e.g., Higher Secondary Exam)  
  
City \_\_\_\_\_  
  
State \_\_\_\_\_
  
4. What was the **highest** level of education that your **father** (or male guardian) completed? (Circle one number)  
  
01 Std. XII or less  
02 Vocational Diploma  
03 Bachelors Degree  
04 Post Graduate Degree
  
5. What was the **highest** level of education that your **mother** (or female guardian) completed? (Circle one number)  
  
01 Std. XII or less  
02 Vocational Diploma  
03 Bachelors Degree  
04 Post Graduate Degree
  
6. Please circle the category below that describes the total amount of gross (pre-tax) INCOME earned in the financial year 2006 by your family (Circle one number)  
  
01 Less than 1 lakh  
02 Between 1 and 2.5 lakhs  
03 Between 2.5 and 5 lakhs  
04 Between 5 and 7.5 lakhs  
05 Between 7.5 and 10 lakhs  
06 Above 10 lakhs

7. Do you currently smoke cigarettes? (Circle one number)

- 01 Yes
- 02 No

If yes, approximately how many cigarettes do you smoke in one day?

\_\_\_\_\_cigarettes

8. How often do you exercise?

- 01 Never
- 02 Once or twice a week
- 03 More than twice a week
- 04 Everyday

9. How often do you and your family consume ready-to-eat snack foods (like chips, kurkure, namkeens) ?

- 01 Never
- 02 Once or twice a week
- 03 More than twice a week
- 04 Everyday

ID \_\_\_\_\_

**Please enter your ID on the right hand corner above.**

### Consent and Cash Receipt

I, \_\_\_\_\_, hereby confirm that I have read (and agreed with) the rules and regulations for taking part in the economics experiment conducted jointly by Sujoy Chakravarty (IIT, Delhi), Sangeeta Bansal (JNU) and Bharat Ramaswami (ISI, Delhi), held on March 5, 2008 at IIT, Delhi.

I have received a total sum of Rupees \_\_\_\_\_ as prize money from this experiment.

NAME:

SIGNATURE:

## **INSTRUCTIONS: Taste Evaluation**

In front we have two products labeled **Product A** and **Product B**. These products are Cookies (biscuits) which are close substitutes and are commonly available in the market. They have been repackaged in neutral packages to avoid brand biases (ultimately the brand names will be revealed to you).

**You have to now come forward and taste the products.**

After you are done tasting the product please take some time and perform the rating task below. For both products A and B we have a seven point scale that allows you to rate the **taste and appearance** of the two products. For this purpose a product evaluation form has been provided to you.

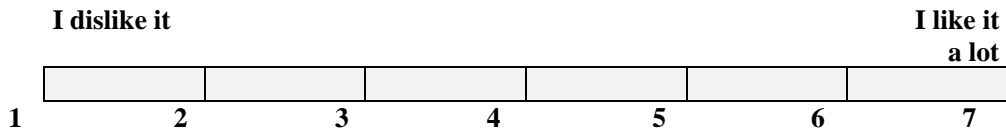
**At this time, please mark your responses on the product evaluation form and return it to us.**

**PRODUCT EVALUATION**

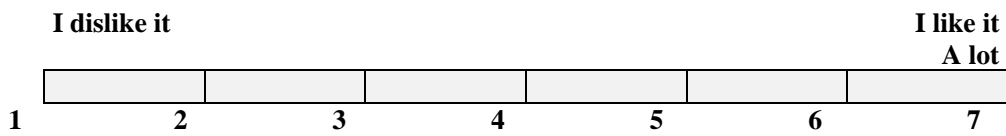
**P ID- \_\_\_\_\_**

**Please enter your ID on the right hand corner above.**

**PRODUCT A**



**PRODUCT B**



Please put **X** on the notch that has a number below it. Notice that the further to the right you move, the more you like the product.

## RULES REGARDING PURCHASE OF PRODUCTS

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You now have the opportunity to purchase a packet of either or both products. To remind you: **You have been endowed with 200 units of lab currency denoted as Francs (Fr.). These Francs convert to Indian Rupees at the rate of 1 Fr. = Re. 0.25 (25 paise).**

You will be given an Offer Sheet on which you can write the maximum amount that you would be willing to pay for a packet of each of the products A and B.

After we receive all the offers, a sale price is randomly drawn and will lie between 0 and 100 Fr. (both included) separately for product A and product B.

If your offer is equal to or above the sale price, you will be able to purchase the product and pay the sale price (not your offer which is either equal to or above the sale price).

If your offer is below the sale price, you do not purchase the product and do not pay any money.

### EXAMPLE:

Suppose there are four participants 1, 2, 3 and 4. They make their offers and then suppose that for product A, the randomly drawn price is 83 Fr.

<b>Participant 1</b> Purchase Offer: 90 Fr. Participant 1 <b>purchases</b> unit of A and pays 83 Fr.	<b>Participant 2</b> Purchase Offer: 35 Fr Participant 2 <b>does not purchase and does not pay anything.</b>
<b>Participant 3</b> Purchase Offer: 83 Fr. Participant 3 <b>purchases</b> unit of A and pays 83 Fr.	<b>Participant 4</b> Purchase Offer: 54 Fr. Participant 4 <b>does not purchase and does not pay anything.</b>

If participant 1 only buys A, then his earnings from this session are:

1 unit of product A in addition to Rs  $[(200-83) * 0.25] = \text{Rs } 29.25$

This is also true for participant 3, if he does not buy a unit of product B. If either of participants 1 or 3 also bought product B, their endowment would be adjusted down by the price they paid for product B.

A participant who does not buy a unit of product takes his whole endowment of 200 Fr. (Rs 50) home.

Please complete the quiz aimed at evaluating whether you really understood the selling process in this experiment. After you have completed this quiz one of the experimenters will come around to check your work. If an experimenter has already checked your work please wait quietly and await further instructions.



## QUIZ

Suppose you put in a purchase offer of 16 Fr. for Product A, and 67 Fr. for Product B. Now the sale price for A is determined to be 48 Fr. and for B it is determined to be 50 Fr.

Answer the following question:

1. How many of the two products do you get to purchase? \_\_\_\_\_
2. If you purchased only one, which of the products A and B did you purchase? \_\_\_\_\_
2. What is the price you pay for the unit(s) you purchased? \_\_\_\_\_
3. Given your endowment of 200 Fr. what is the amount of cash (in addition to the product(s)) in Rupees that you take home? \_\_\_\_\_

Please enter your ID on the right hand corner of the box below and enter the offer prices for products A and B.

<b>PURCHASE OFFER SHEET</b>	<b>W ID - _____</b>
<b>PRODUCT A</b>	
<b>Purchase offer</b>	<input type="text"/>
<b>PRODUCT B</b>	
<b>Purchase offer</b>	<input type="text"/>

## Information sheet on genetically modified foods

### 1. What are genetically modified foods?

Foods derived from plants that are genetically modified are called genetically modified (GM) foods. A plant is genetically modified if it contains genes that have been inserted using genetic engineering techniques.

### 2. How is genetic engineering different from traditional plant breeding?

Genetic engineering makes it possible to insert a gene from another organism (such as another plant species, bacteria or animal) into the plant variety of interest. This is not possible with the traditional techniques of producing improved plant varieties.

### 3. Why are GM foods produced?

GM foods are developed – and marketed – because there is some perceived advantage either to the producer or consumer of these foods. The first generation of GM plants have given more direct benefits to growers than to consumers although the latter have possibly gained from lower prices.

### 4. What are examples of genetically modified plants?

The principal examples of genetically modified crops occur in soybeans, maize (i.e., corn) and cotton. For instance, genes from a commonly found soil bacteria have been used to produce soybeans, maize and cotton that are naturally resistant to certain pests.

### 5. Why are GM foods regulated?

There are two broad concerns with GM plants. First, because the foods are novel, they must be tested for toxicity and possible allergenicity. The second issue is whether the engineered gene can escape into wild populations and other unintended plants. For these reasons, GM crops must be assessed for food and environmental safety before they can be planted.

### 6. What is the status of GM foods in India?

In India, no GM food crop has been approved for planting yet. Therefore, foods produced from domestically produced crops are not genetically modified. Foods that are imported could contain ingredients that are genetically modified. As of now, India does not have separate regulations for imports of GM food other than what applies to imported foods generally.

### 7. Why do some people oppose GM foods?

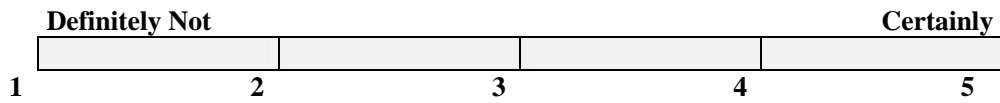
Several NGOs and individuals claim that GM plants pose unacceptable risks to food safety as well as environment safety. They argue that transferring genes between organisms creates new risks for human health that cannot be fully comprehended by our existing scientific knowledge. They would therefore recommend that GM foods should be banned or severely curtailed until risk assessments are more comprehensive in testing the adverse effects on human health.

This is disputed by biotechnology advocates who point out that GM crops are extensively tested before they are approved. According to the World Health Organization (WHO), "GM foods currently available on the international market have passed risk assessments and are not likely to present risks for human health. In addition, no effects on human health have been shown as a result of the consumption of such foods by the general population in the countries where they have been approved."

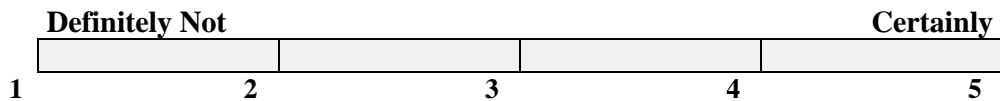
**Please enter your ID on the right hand corner above.**

Please evaluate the products on the given scale with respect to the statements given below .

**PRODUCT A: This product is genetically modified.**



**PRODUCT B: This product is genetically modified.**



Please put **X** on the notch that has a number below it. Notice that the further to the right you move, the greater is your belief that the product has been genetically modified.

**INSTRUCTIONS**

You now have the opportunity to make a fresh round of price offers for products A and B. **Note that you still have your 200 Fr intact as only one of these two rounds (or any round that may follow this) will be randomly chosen in order to determine who wins the products and at what price.**

The instructions on how units of Product A and B are bought are given in the first set of instructions you received. So please turn to them to review the rules regarding sales in this experiment if you need to.

If you have any questions please raise your hand and an experimenter will come to you.

If you are ready to put in your purchase offer please use the purchase offer sheet given to you to enter in your purchase offers for Products A and B and submit this to an experimenter.

Please enter your ID in the right hand corner of the box below and enter the offer prices for products A and B.

<b>PURCHASE OFFER SHEET</b>	<b>X ID - _____</b>
<b>PRODUCT A</b>	
<b>Purchase offer</b>	<input type="text"/>
<b>PRODUCT B</b>	
<b>Purchase offer</b>	<input type="text"/>

**INSTRUCTIONS**

You now have the opportunity to make a fresh round of price offers for products A and B. **Note that you still have your 200 Fr intact as only one of these three rounds (or any round that may follow this) will be randomly chosen in order to determine who wins the products and at what price.**

The instructions on how units of Product A and B are bought are given in the first set of instructions you received. So please turn to them to review the rules regarding sales in this experiment if you need to.

If you have any questions please raise your hand and an experimenter will come to you.

If you are ready to put in your purchase offer please use the purchase offer sheet given to you to enter in your purchase offers for Products A and B and submit this to an experimenter.

Please enter your ID on the right hand corner of the box below and enter the offer prices for products A and B.

<b>PURCHASE OFFER SHEET</b>	<b>Y ID - _____</b>
<b>PRODUCT A</b>	
<b>Purchase offer</b>	<input type="text"/>
<b>PRODUCT B</b>	
<b>Purchase offer</b>	<input type="text"/>



**INSTRUCTIONS**

You now have the opportunity to make a fresh round of price offers for products A and B. **Note that you still have your 200 Fr intact as only one of these four rounds (or any round that may follow this) will be randomly chosen in order to determine who wins the products and at what price.**

The instructions on how units of Product A and B are bought are given in the first set of instructions you received. So please turn to them to review the rules regarding sales in this experiment if you need to.

If you have any questions please raise your hand and an experimenter will come to you.

If you are ready to put in your purchase offer please use the purchase offer sheet given to you to enter in your purchase offers for Products A and B and submit this to an experimenter.

Please enter your ID in the right hand corner of the box below and enter your offers for products A and B.

<b>PURCHASE OFFER SHEET</b>	<b>Z ID - _____</b>
<b>PRODUCT A</b>	
<b>Purchase offer</b>	<input type="text"/>
<b>PRODUCT B</b>	
<b>Purchase offer</b>	<input type="text"/>