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"Zebras" or "Giraffes"? How Durability Labelling Impacts Gen-Z Clothing Sufficiency

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MOTIVATION background and research questions

BACKGROUND

EU Strategy for Sustainable and Circular Textiles (2022)

Ecodesign for Sustainable Products Regulation (2024)

Durability requirements for apparel

RESEARCH QUESTION

Are durability labels effective?

Previous studies

(see the review Milios & Dalhammar, 2023):

- Few experimental studies
- Using contingent choice experiments
- Between-subject design (Sun et al., 2021)

EVIDENCE:
durability labels are effective

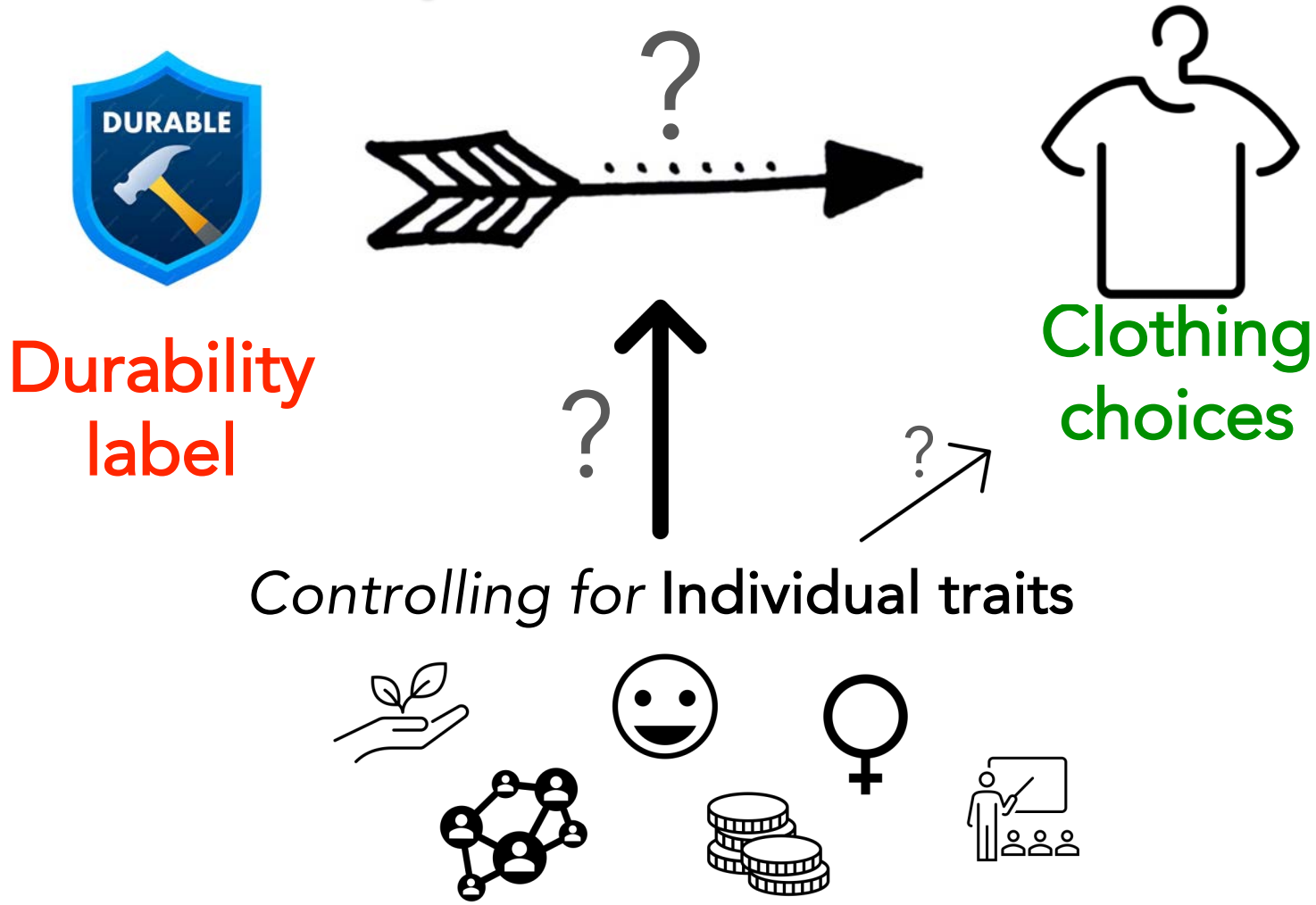
Our study

- Field experiment → addressing hypothetical bias

- Focus on 20-29 year-old people
  - GenZ cares about sustainability
    for fashion see Gazzola et al. (2020)
  - Young people are **polarized** (Jacobs & Horisch, 2021)
    a large proportion of those attributing both
    the **lowest** and the **highest** importance to *product lifetime*

- Testing the effect of possible moderators
  e.g. env. concern, gender, income, …

Research questions



The design

- Incentives
- Choice
- Treatment
- Procedure

INCENTIVES

A keychain 

&

participation in a LOTTERY for winning T-SHIRTS (pr=1/4)

2 different T-Shirts

IDENTICAL features

- Producer
- Model/fit
- Material (organic cotton)
- Style (no graphics)
- Colour variety

DIFFERENCES

FABRIC

180 Grams per square meters (GSM) **155**

LABELS

Price 19.99 €

GIRAFFE

Price 9.99 €

ZEBRA

CHOICE

Which lottery prize do you prefer …

ONE

«GIRAFFE» T-Shirt

Price 19.99 €

GIRAFFE

TWO

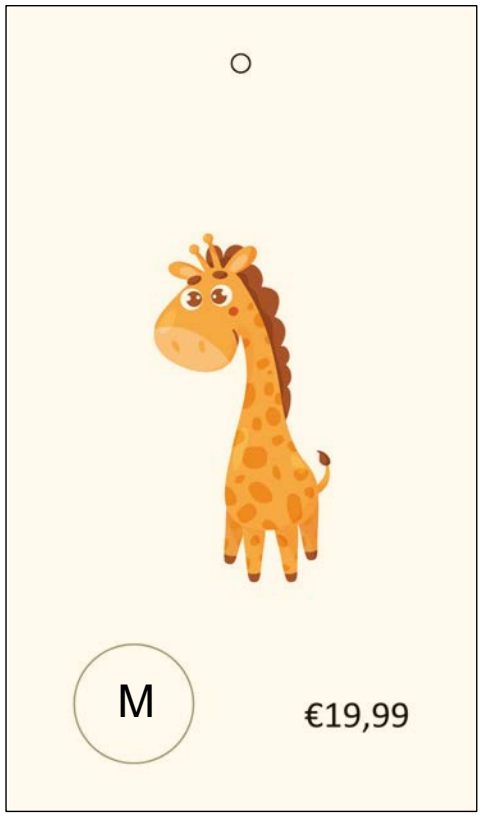
«ZEBRA» T-Shirts

Price 9.99 €

ZEBRA

TREATMENT

Durability information added to the «Giraffe» label



Randomization

Students selected their preferred session

Each day was either treatment or control

Ex-post check of the characteristics of the different groups

PROCEDURE (1)

TWO SEPARATE steps and administrators

A and B

to anonymise participants

PROCEDURE (2)

Phase A

1) Privacy form (and ID card check)
2) Explanation about the lottery and T-Shirt choice (colour, size, and type)
3) Time for choosing
4) Report preferences on the choice card

TAGLIA	COLORE	MODELLO	CODICE IDENTIFICATIVO
☐ XS ☐ S ☐ M ☐ L ☐ XL ☐ XXL	Esprimi due preferenze, A e B BIANCO ___ BLU NAVY ___ NERO ___ VERDE ___ VINACCIA ___	☐ GIRAFFA (x1) ☐ ZEBRA (x2)	☐☐☐☐

PROCEDURE (3)

Phase B

Subjects

1) draw ID code for anonymisation
2) insert choice card in lottery box
3) listen to cheap talk
4) fill out questionnaire
5) get the keychain

Who, where, when

- When and where
- Subjects and recruitment

Who

Students from the University of PISA

Recruitment

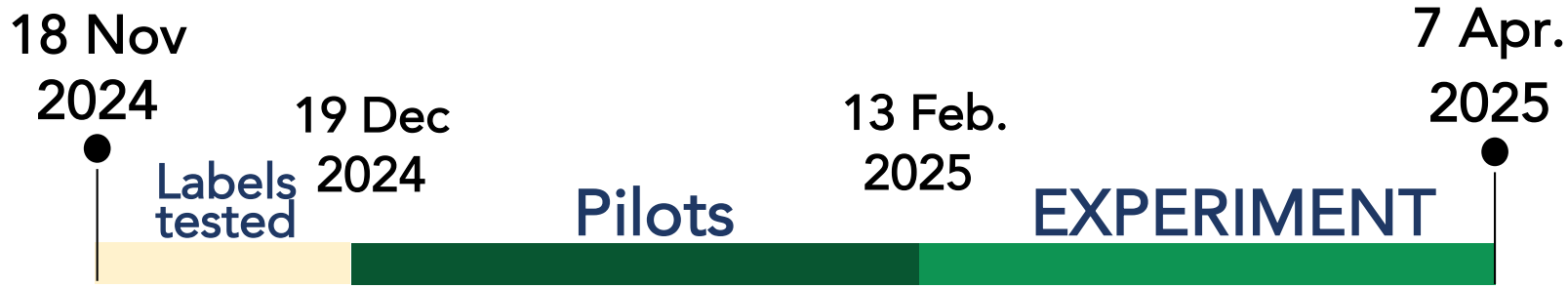
- bulk e-mails
- flyers at teaching hubs
- ORSEE platform (previous experiments)
- Instagram stories on the depts' account

Exclusion criteria
ex-ante: non-Italian speaking
ex-post: 12 excluded subjects because age>29

Number of participants
Pilot=33 Experiment=433 Excluded=12

Where and When

@ University of Pisa teaching hubs



Number of subjects	69	33	433

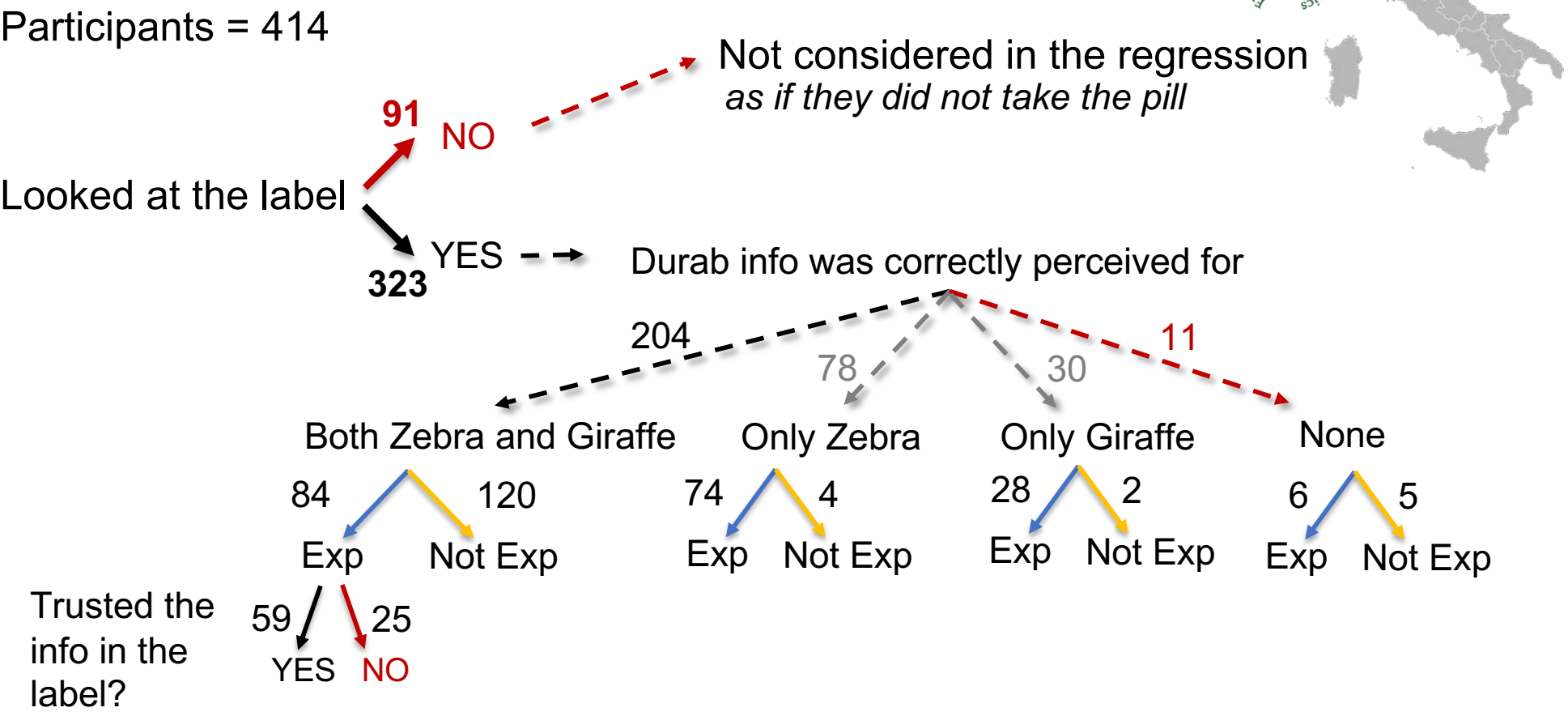
Estimates & results

Dependent variable

y:=binary choice

y=1 if ONE "Giraffe" t-shirt is chosen
y=0 if TWO "Zebra" t-shirts are chosen

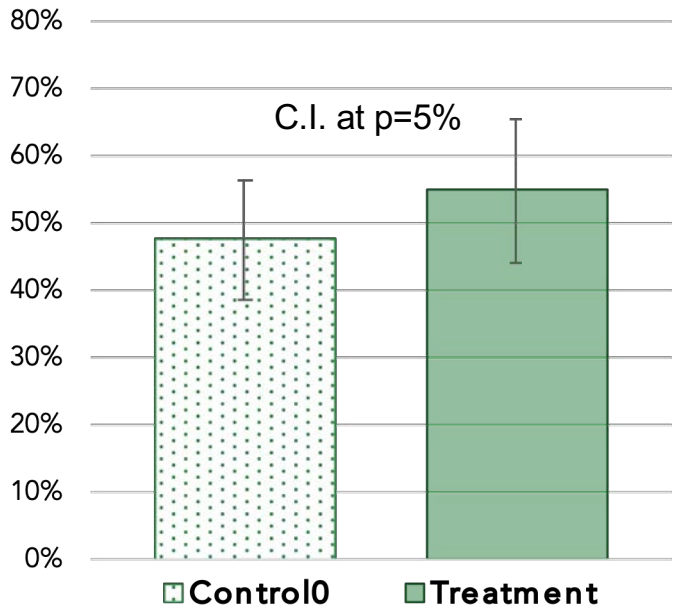
H1: **Durability labelling** increases the likelihood of students/young people choosing more durable products


Participants = 414
Not considered in the regression
as if they did not take the pill
91
NO
Looked at the label
YES
323
Durab info was correctly perceived for
204
78
30
11
Both Zebra and Giraffe
Only Zebra
Only Giraffe
None
84
120
74
4
28
2
6
5
Exp
Not Exp
Exp
Not Exp
Exp
Not Exp
Exp
Not Exp
Trusted the info in the label?
59
25
YES
NO

Ecological Economics in Tuscany

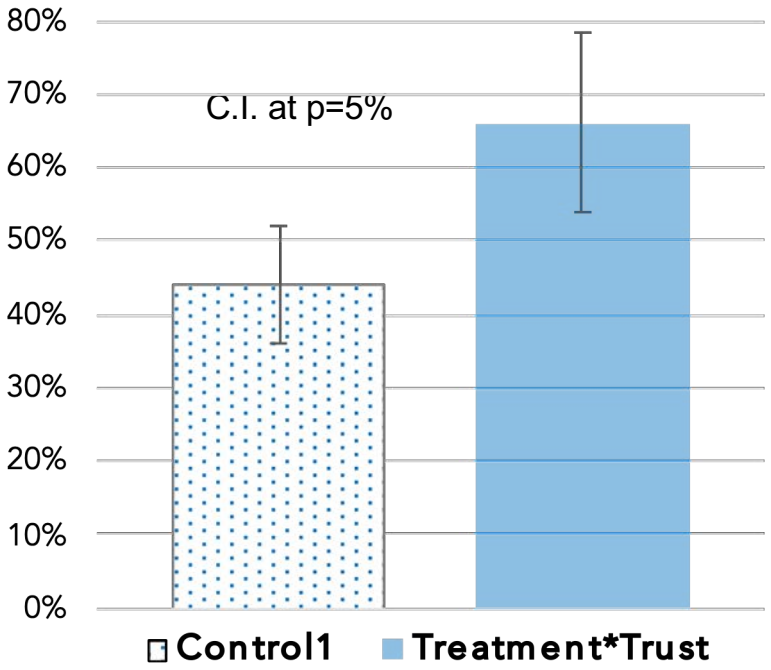
χ^2=1,049 (p=0.31)
V-Cramer=0.072

	Giraffe	Zebra	*TOT*
Control	57	63	*120*
Treatment	46	38	*84*
TOT	*103*	*101*	*204*



	Giraffe	Zebra	*TOT*
Control1	64	81	*145*
Treat*Trust	39	20	*59*
TOT	*103*	*101*	*204*

χ^2=8,79 (p=0.003)
V-Cramer=0.21



Checking for groups omogeneity

Adding controls and
LOGIT regression analysis

Logit regression

$$Y = a_0 + a_1 T + a_2 Trust \times T + \boldsymbol{a_i} \times \boldsymbol{X_i}$$

OR ?

$$Y = a_0 + a_1 T + a_2 Trust \times T + \boldsymbol{a_i} \times \boldsymbol{X_i} + a_3 Trust$$

X_i : control variables

- Environmental concern
- Socio-demographics
  - Geography
  - Educational field
  - Gender
  - Economic condition (high, medium, low, no answer)
  - Work condition
  - Grown up in rural areas
- Social Norms
- Subjective wellbeing
- Social Capital

OTHER HPs

Sensitiveness to durability labelling is

- H2: higher in environmentally concerned subjects;
- H3: increases with subjective well-being;
- H4: lower the higher social capital;
- H5: independent of the geographical origin (cultural homogeneity among youngs)
- H6: independent of the educational field;
- H7: independent of gender (see literature);
- H8: (in)dependent of household economic situation;
- H9: increases when participants believe most people prefer the product with the label (empirical) or think it is the right choice (normative)

$$Y = a_0 + a_1\, T + a_3\, Trust + a_2\, Trust \times T + \mathbf{a_i} \times \mathbf{X_i} + \mathbf{b_i} \times T \times \mathbf{X_i}$$

PRELIMINARY RESULTS from the regressions

Women → lower pr(Giraffe)

Other controls n.s.

Interactions n.s.

the results from contingency table analysis are confirmed

Conclusion

Probability of choosing «GIRAFFE» higher for treated subjects who trusted the info

«good» info
via QR-CODEs
are needed to make the label trustworthy

The (preliminary) end …