ISEE-Degrowth 2025

Ecological Economics in Tuscany

“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

Ecological Economics in Tuscany

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

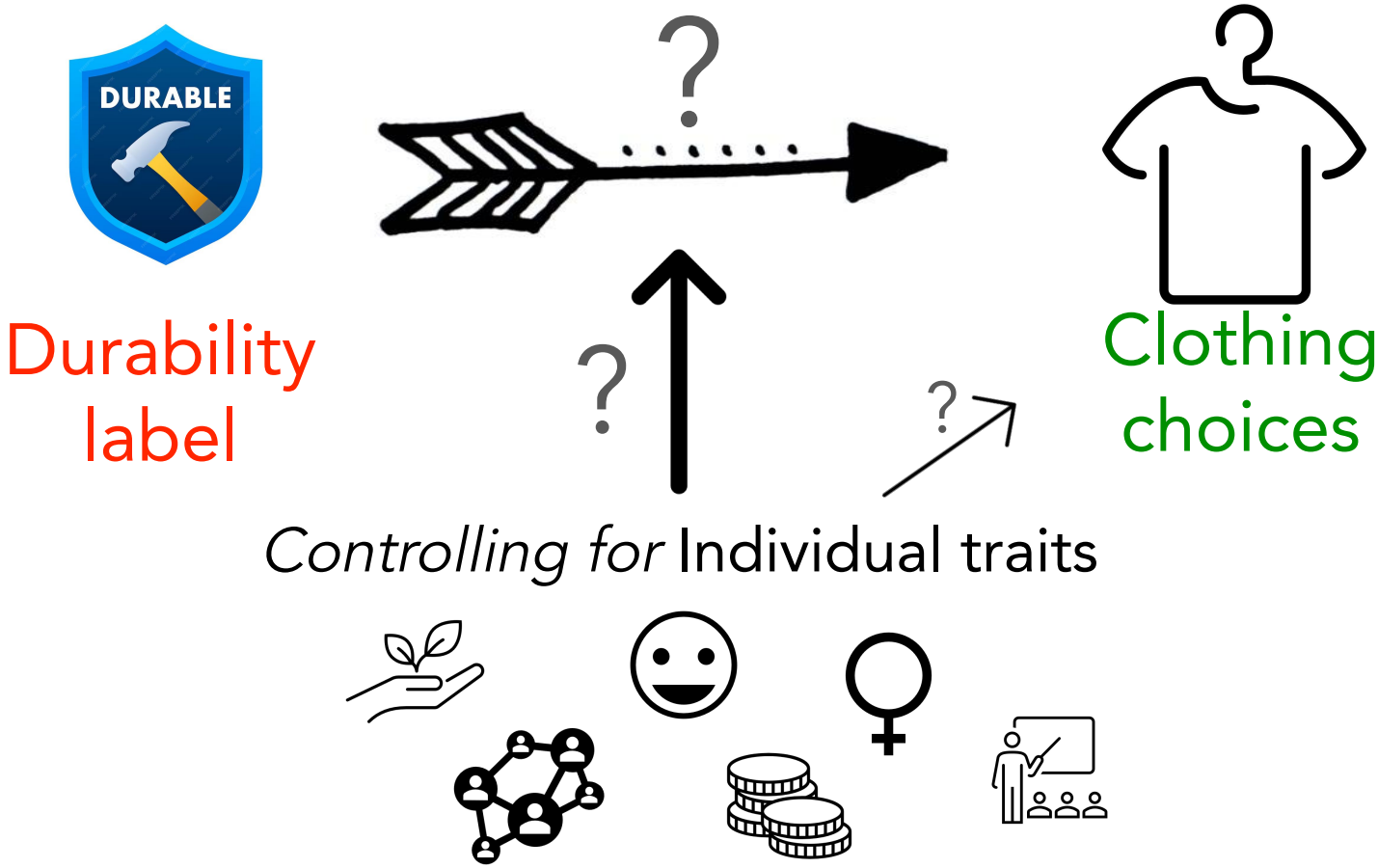
Our study

- 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



Research questions

What is the influence of durability labelling on GEN Z choice of clothes?

1. Is durability labelling effective in triggering the choice of more durable clothes?
2. Who is more sensitive to durability labelling?

Side question: Who is more prone to choose durable clothing (socio-demographic characteristics)?

The design

- Incentives
- Choice
- Treatment
- Procedure

APPROVED by the Ethical commitee of the University of PISA and
PREREGISTERED on «As Predicted»

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 …

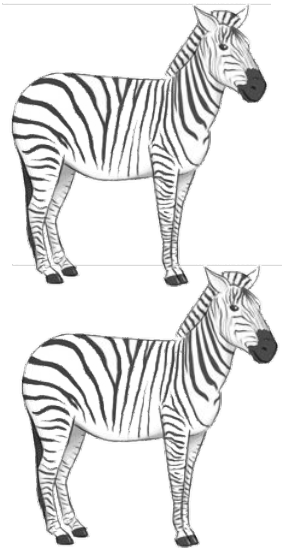
ONE

«GIRAFFE»
T-Shirt

Price 19.99 €
GIRAFFE

TWO

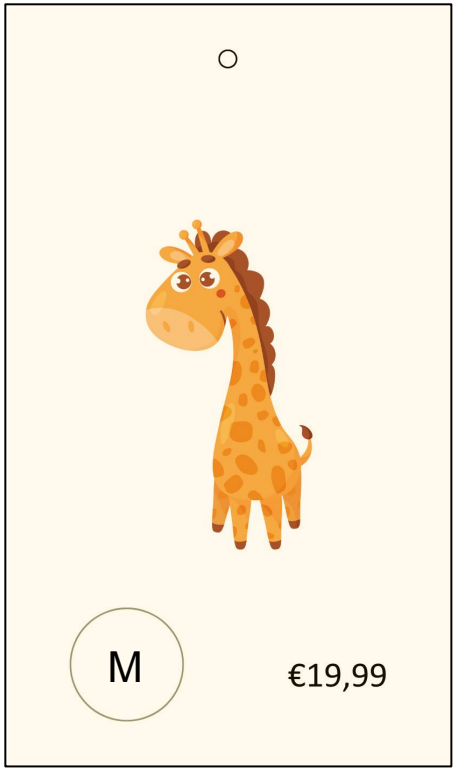
«ZEBRA»
T-Shirts



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

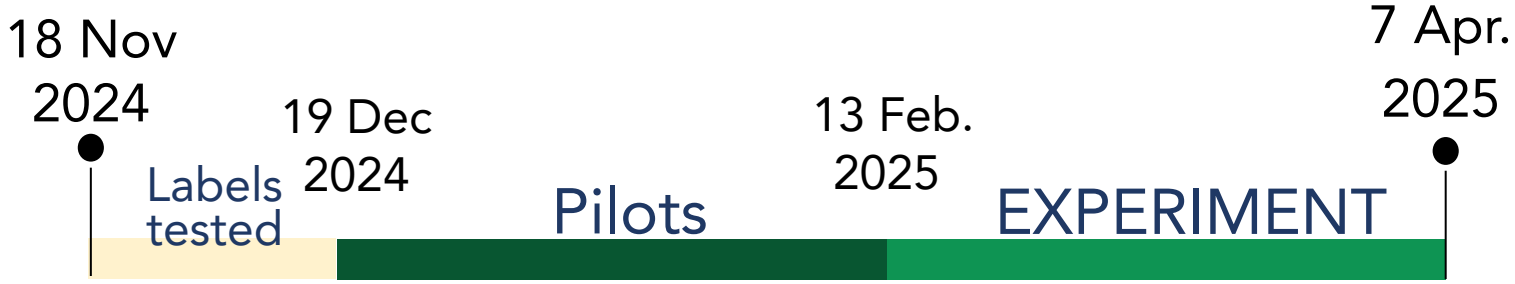
- bulk e-mails
- flyers at teaching hubs
- ORSEE platform (previous experiments)
- Instagram stories on the depts' account

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

Number of participants
Pilot=33 Experiment=426 Excluded=12

Where and When

@ University of Pisa teaching hubs



Number of subjects	6 9	3 3	414

Estimates & Results

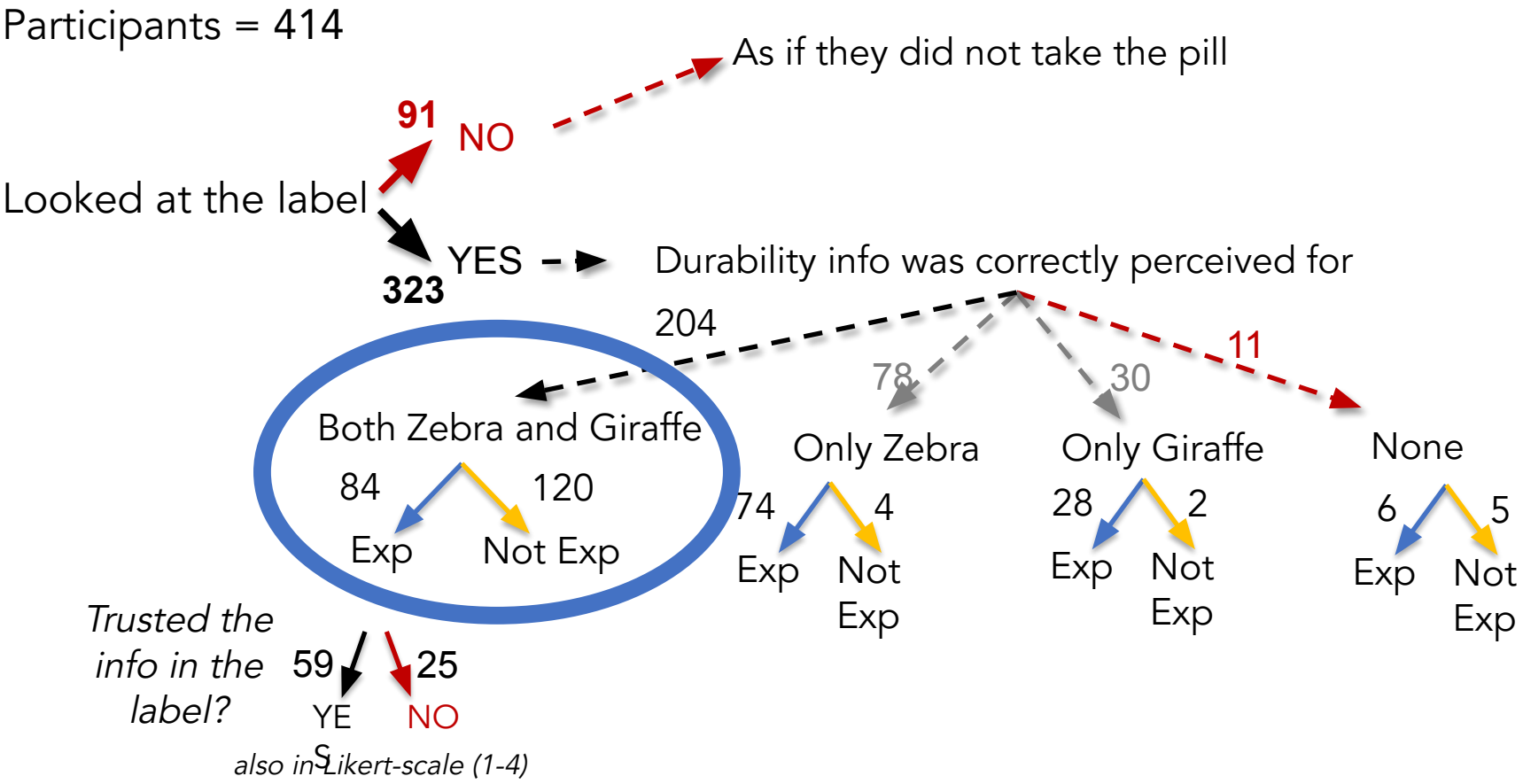
Dependent variable

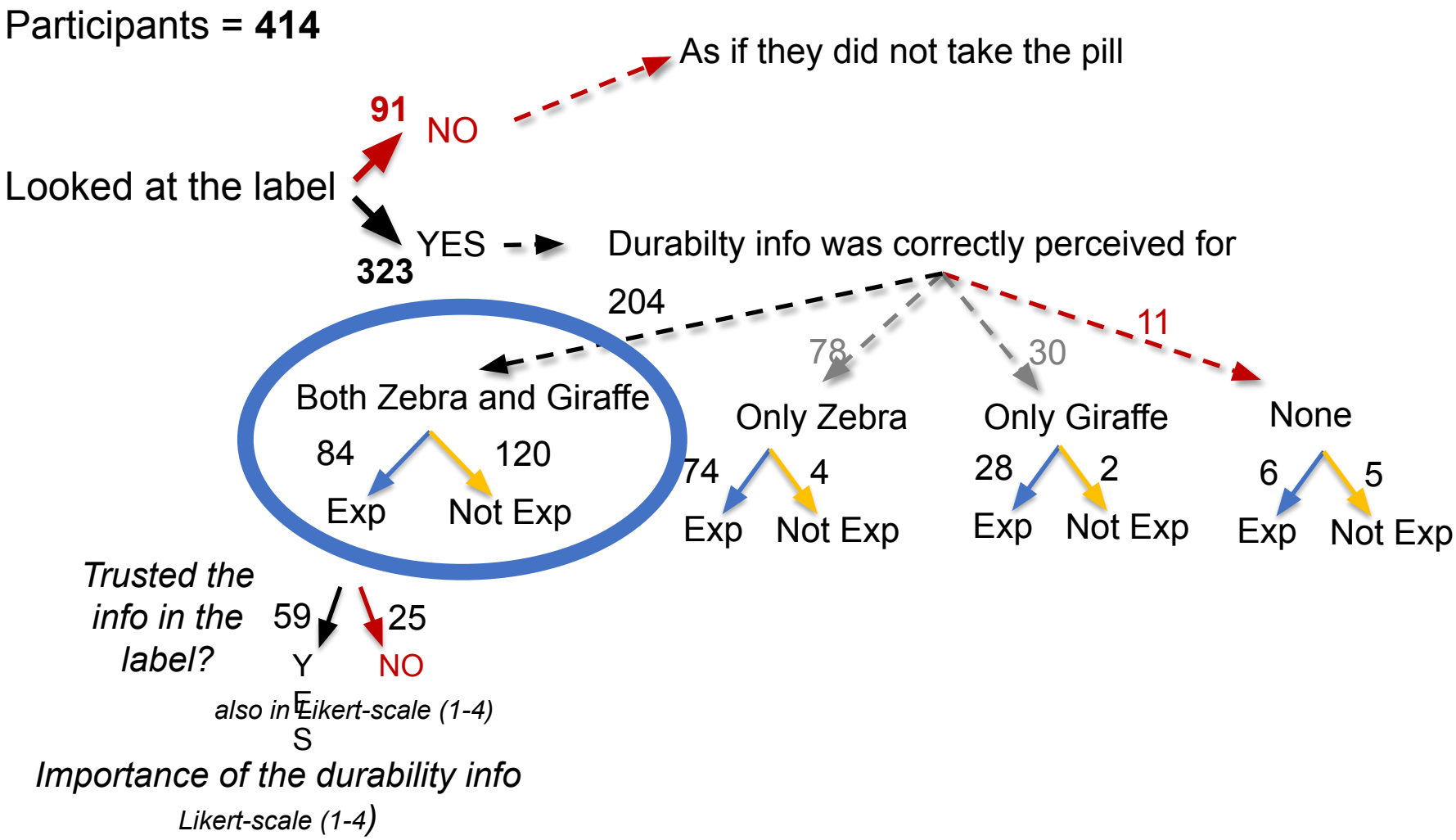
y:=binary choice

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
91
NO
As if they did not take the pill
Looked at the label
YES
323
Durability info was correctly perceived for
204
78
30
11
Both Zebra and Giraffe
84
120
Exp
Not Exp
Only Zebra
74
4
Exp
Not Exp
Only Giraffe
28
2
Exp
Not Exp
None
6
5
Exp
Not Exp
Trusted the info in the label?
59
25
YES
NO
also in Likert-scale (1-4)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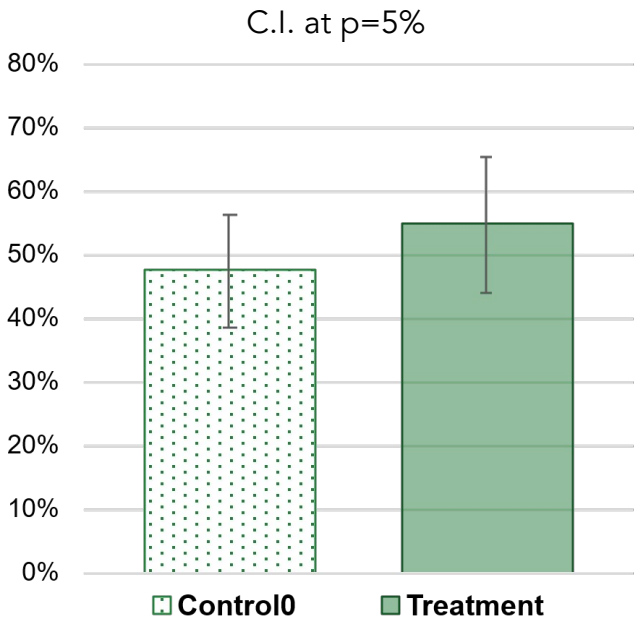
YES
NO
also in Likert-scale (1-4)
Importance of the durability info
Likert-scale (1-4)

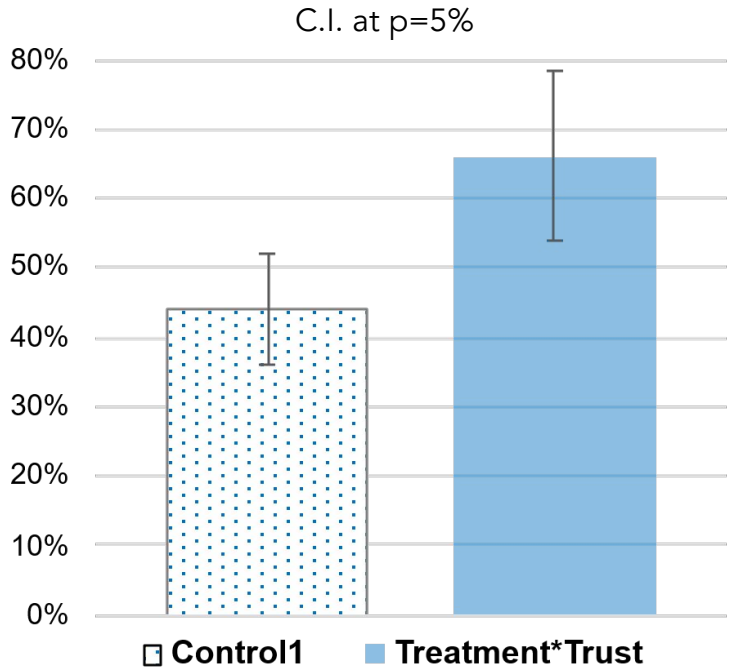
χ^2=1,049 (p=0.31)
V-Cramer=0.072

	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

pr(Choice=Giraffe)

Model A
ALL (n=414)
Exposure
Looked
Exposure*Looked
CONTROLS

Model B
if (LOOKED=1) --> n=323
Exposure
AttDurLab
Exposure*AttDurLab
CONTROLS

Model C
if (AttDurLab=1)--> n=204
Exposure

Model C bis
if (AttDurLab=1)--> n=204
Exposure
Exposure*Trustlab
CONTROLS

Model D
if (AttDurLab=1 & Exposed=1) -->n=84
Trustlab
CONTROLS

Logit regression

Y = MODEL A/B/C/C

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

Attention Score	0; 0.25; 0.50; 0.75; 1; na
Perceived quality diff: Giraffe-Zebra	(-3;+3)
Likeability	1;4
Worker OR High_Middle_Income	0;1
Siblings	0;1
Rural	0;1
Female	0;1
Age	18;29
STEM	0;1
SOC	0;1
Soc_satisfaction	1-10
Life satisf & happiness (PCA)	1-10
How many owned T-Shirts	1;4
G-Z_Empirical Social Norm	-10;+10
G-Z_Ethical social norm	-10;+10
IndivAction+IndivDuty+EnvConcern OR IndivAction*IndivDuty*EnvConcern OR EnvConc OR Green_Image OR Immigration	(1;12) (1;64) (1;4) (1;4) (1;4)

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 the young)
- 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)

PRELIMINARY RESULTS from the regressions

Women □ lower pr(Giraffe)

Other controls n.s.

Interactions:
only trust and attention is significantly >0

the results from contingency table analysis are confirmed

REGRESSIONS

- TO ADD

Conclusion

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

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

Questions?

Keep updated on our website!

SCAN ME

T3			
Etichette di riga	Media di Differenza Qual G-Z	Conteggio di T3	
0	0,185	27	scarsa fiducia
1	0,642	81	fiducia
na	0,323	313	non trattati oppure non hanno guardato
Totale complessivo	0,375	421	

T2		
Etichette di riga	Media di Differenza Qual G-Z	Conteggio di T2
0	0,323	313
1	0,528	108
Totale complessivo	0,375	421

PERCEIVED QUALITY

Exposed		
Etichette di riga	Media di Differenza Qual G-Z	Conteggio di Exposure
0	0,339	186
1	0,404	235
Totale complessivo	0,375	421,000