ETH
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Environmental product information from the psychological point of view

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Outline

1. Why environmental product information?
2. Evaluability principle
3. The role of standard reference information
4. Conclusions

Categorization of Quality Dimensions

- **Search**: at time of purchase (e.g., appearance)
- **Experience**: after purchase (e.g., taste)
- **Credence**: consumer has to trust judgement of others (e.g., healthiness or environmental friendliness)

  ➔ Communication:

  - Credibility of (information from) source
  - Ability to process information

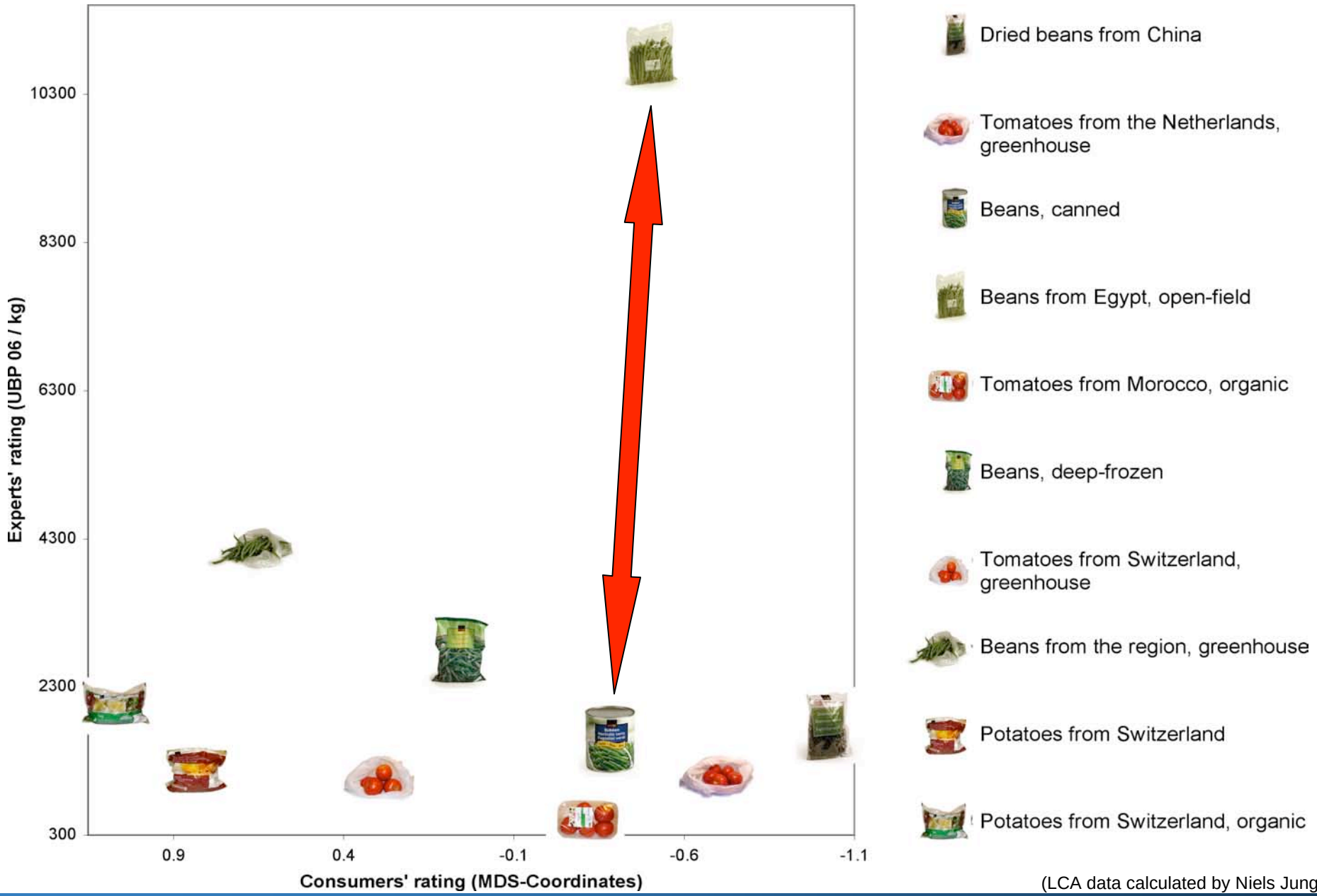
(see Grunert, 2002)

1. Why Environmental Product Information? Consumers‘ environmental assessment

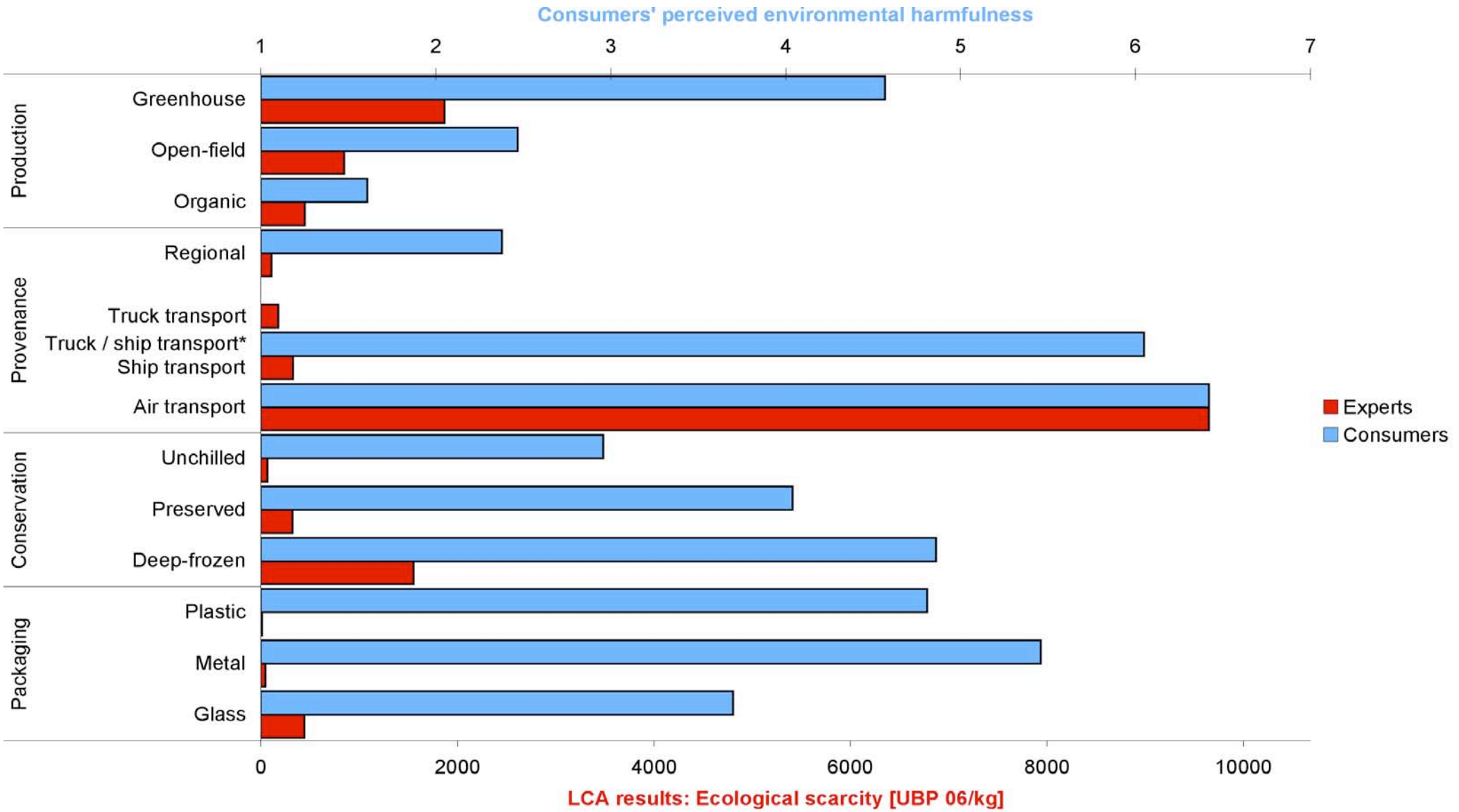
Beans from Egypt, open-field production

Beans, canned

Tobler, Visschers, & Siegrist, accepted for publication

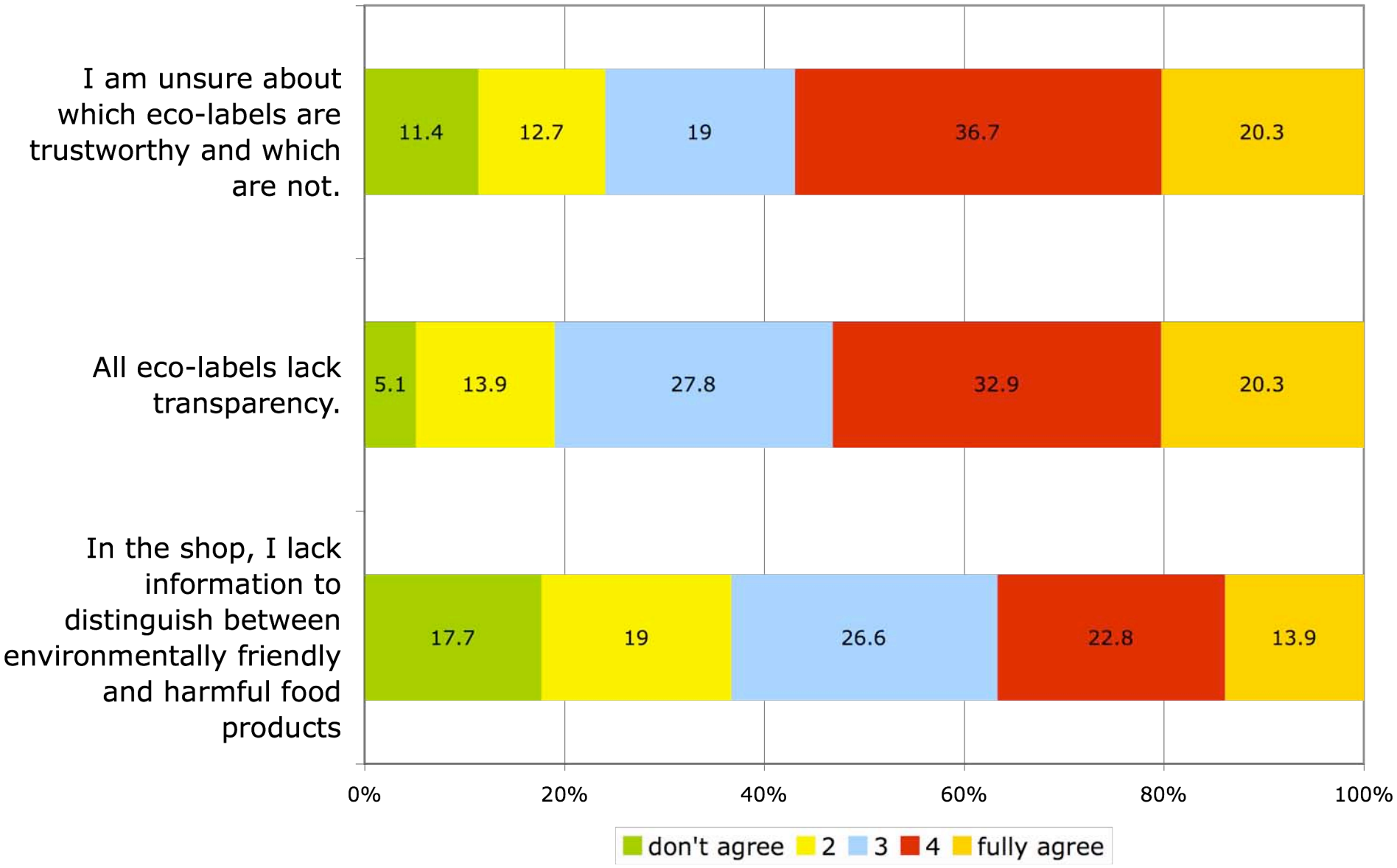


(LCA data calculated by Niels Jungbluth, esu-services)

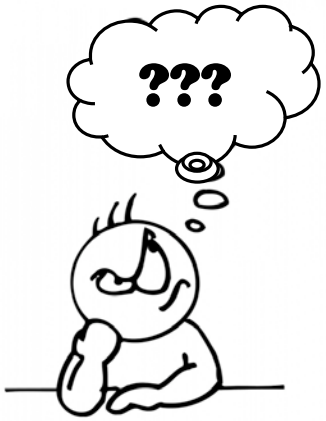


*While experts rated truck and ship transportation separately, consumers evaluated “truck or ship transportation” together.

(LCA data calculated by Niels Jungbluth, esu-services)


I am unsure about which eco-labels are trustworthy and which are not.
11.4
12.7
19
36.7
20.3
All eco-labels lack transparency.
5.1
13.9
27.8
32.9
20.3
In the shop, I lack information to distinguish between environmentally friendly and harmful food products
17.7
19
26.6
22.8
13.9
0%
20%
40%
60%
80%
100%
don't agree
2
3
4
fully agree

2. Evaluability principle



1‘780 UBP 06/kg

10‘847 UBP 06/kg

(LCA data calculated by Niels Jungbluth, esu-services)

Evaluability principle

Table 2
Attributes of two dictionaries in Hsee's study

	Year of publication	Number of entries	Any defects?
Dictionary A	1993	10,000	No, it's like new
Dictionary B	1993	20,000	Yes, the cover is torn; otherwise it's like new

Source: Adapted from Hsee (1998).

- Preference reversals occur between joint and separate evaluations when a particular attribute is easily evaluated while another is relatively hard to evaluate
- ➔ even very important attributes may not be used unless they can be translated precisely into a frame of reference.

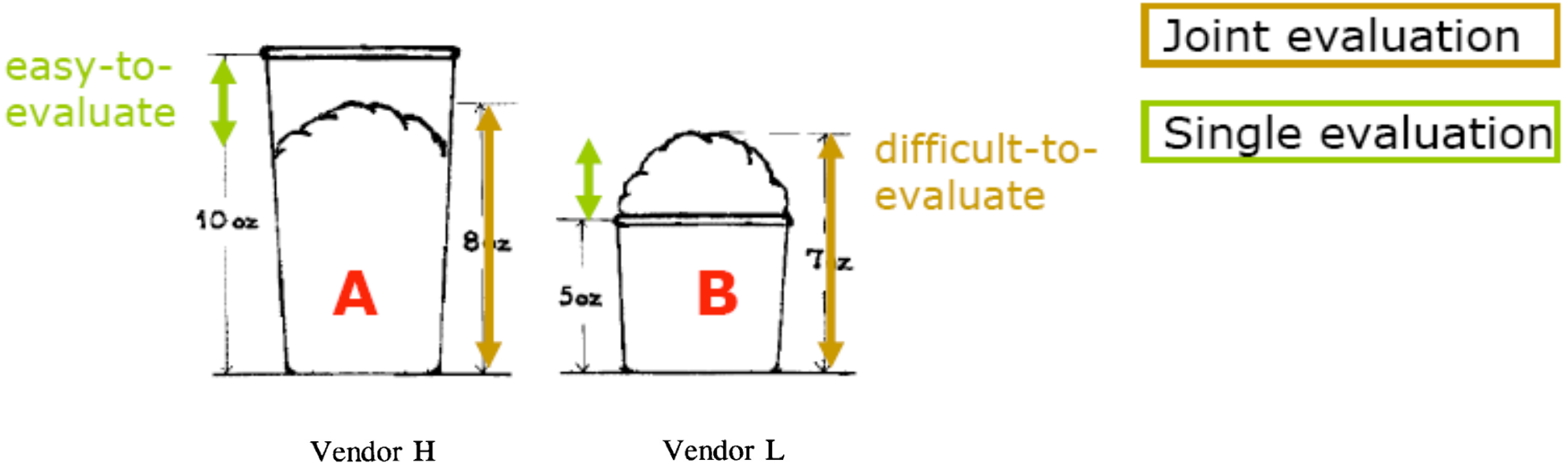


Exhibit 1. Drawings in Study 2

Exhibit 2. WTP prices for Vendor H's and Vendor L's servings in Study 2

Evaluation mode	Vendor H's	Vendor L's	*t*-value
Separate evaluation	$1.66	$2.26	$2.47, p < 0.05$
Joint evaluation	$1.85	$1.56	$4.31, p < 0.01$

Hsee, 1998

EPI: Carbon Footprint as an example

Example format	Label format type	What consumers liked	What they didn't like
	Absolute numbers	• clear and simple • allows direct comparisons between products (like calories) • potential to make comparisons with other actions, if helped with wider communications, e.g. cars (grams of CO_2 per kilometre)	• numbers are useless without context: value in isolation means nothing • difficult for consumers to understand what a gram of carbon relates to and whether it is good or bad
	Guideline Daily Amount ("GDA")	• familiarity (again from nutritional labelling) • puts things in context	• provokes questions about how the GDA was derived • less intuitive – would need further explanation/ education

Berry, Crossley, & Jewell, 2008

Consumers want a carbon label to be...

- noticeable / distinctive
- from a trusted voice and fit with other sustainability labels
- simple to understand and intuitive (i.e. need little interpretation), and to provide context
  - *"It's difficult. I've no idea what 260 grams of carbon looks like. I'm sure it's better [than the comparatively higher carbon product] but I have no idea what the impact of 260 grams is like. I have no idea."*
  - *"...if I then see something and it tells me that my 3 mile car journey creates x grams of carbon, I've then got a measure [...] it just makes you realise where it fits in the scale of things."*

Berry, Crossley, & Jewell, 2008; Upham, Dendler, & Bleda, 2010

3. The role of standard reference information

- Product with weaker vs. stronger nutrition value
- Reference points:

none

BREAKFAST CEREAL "A"

Nutrition Information Per Serving

Serving Size 1 cup

	Brand A Cereal
Calories	125
Sodium	230 mg
Fiber	1 g

%Daily Value (%DV)

BREAKFAST CEREAL "A"

Nutrition Information Per Serving

Serving Size 1 cup

	Brand A Cereal	% Daily Value*
Calories	125	6.3%
Sodium	230 mg	9.8%
Fiber	1 g	4.0%

*Daily values based on a 2000 calorie diet.

Average brand

BREAKFAST CEREAL "A"

Nutrition Information Per Serving

Serving Size 1 cup

	Brand A Cereal	Average Value*
Calories	125	102
Sodium	230 mg	155 mg
Fiber	1 g	2.5 g

*Average value based on the average for all cereal brands.

Barone, Rose, Manning, & Miniard, 1996

	No Reference Point Provided		Average-Brand Reference Point		%DV Reference Point	
Measure[a]	Stronger	Weaker	Stronger	Weaker	Stronger	Weaker
Calorie content healthiness	6.47	6.06	7.42	4.00	5.82	6.06
Sodium content healthiness	5.05	5.35	6.84	2.90	3.65	4.95
Fiber content healthiness	5.32	5.06	6.97	3.24	6.58	4.91
Overall healthiness	5.95	5.59	7.12	3.48	5.71	5.52
Brand attitude	5.71	5.25	6.54	3.78	5.03	5.40
Purchase intentions	4.84	5.13	5.42	3.29	3.65	4.80

[a]Higher scores indicate more favorable responses.

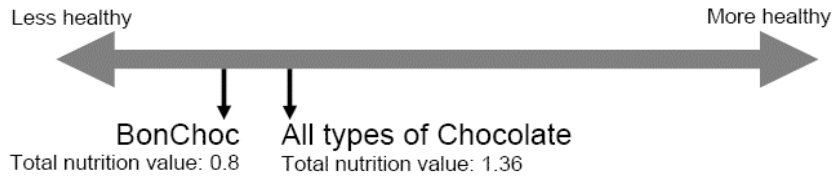
- No reference: perceived healthiness, attitude & purchase intentions unaffected by nutritional value
- Average brand: reference information improved ability to judge product‘s healthiness and affected attitude & intentions
- %DV: mixed results

The role of standard reference information

Nutrition information BonChoc

	100 g contain ca.	1 bar (= 29 g) contains ca.
Energy	2284 kJ / 546 kcal	662 kJ / 158 kcal
Fat	32 g	9.3 g
Saturated fat	19 g	5.5 g
Carbohydrates	60 g	17.4 g
Sugar	55 g	15.9 g
Fibre	2 g	0.6 g
Sodium	0.63 g	0.18 g
Protein	6 g	1.7 g

BonChoc compared to all types of chocolate:



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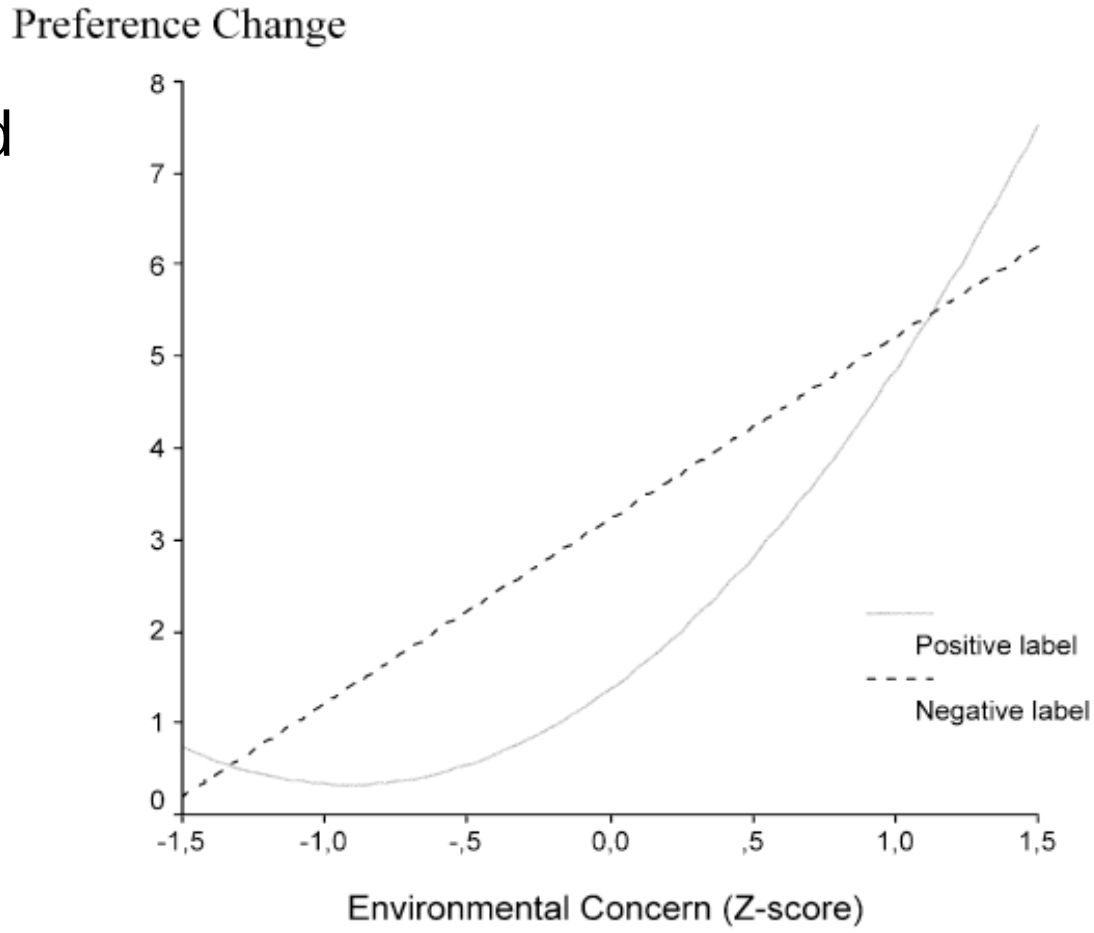
BonChoc compared to an orange:

- Nutrition tables with reference information: product's perception more in line with its actual nutritional value

Visschers & Siegrist, 2009

Promotion vs. Prevention focus

- Promotion: reach for things that are environmentally good
- Prevention: avoid things that are environmentally bad
- Environmental concern:
  - strong: equally affected
  - intermediate: more affected by negative label
  - weak/none : unaffected



Grankvist, Dahlstrand, & Biel, 2004

4. Conclusions:

- Consumers need more information on ecological consumption
- Environmental product information could foster ecological consumption
  - preferably with a reference frame
  - credibility is essential
- A reference standard would allow to identify undesirable options ➔ could additionally influence consumers with intermediate environmental concern

Problems to be considered

- Environmental friendliness only priority for small minority of consumers
- EPI will have to compete for shopper‘s attention
- Product substitutability should not be taken for granted
- Possibility of rebound effects

(see Upham, Dendler, & Bleda, 2010)

Thank you for your attention!

Literature

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