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How effective are narrative messages in changing attitudes and preferences for electric vehicles?

A before-and-after stated choice experiment

hEART26 Université Gustave Eiffel

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INTRODUCTION AND OBJECTIVES

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INTRODUCTION

Context

- The acceptance of alternative fuel vehicles (AFVs), including electric (EVs) and plug-in hybrid electric vehicles (HEVs) is strongly influenced by:
  - Instrumental and economic variables (purchase prices, operation costs).
  - Psychological factors (attitudes, perceptions, emotions).
  - Social factors (image, self-identity, social influence).
- **Attitudinal change** is required to increase the acceptability of AFVs and boost their market diffusion. However, policy measures typically overlook this aspect.



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INTRODUCTION

Persuasive communication

- **Persuasive communication** can be a powerful strategy to achieve attitudinal change.
  - Exposure to **narrative-based persuasion**, based on stories, testimonials, opinions, and examples, can have a significant effect on individual beliefs about a product or object, facilitating attitudinal change (Green and Brock, 2000).
- However, there is limited evidence on:
  - How narrative messages can influence attitudes towards AFVs.
  - Whether attitudinal changes elicited by message exposure can also influence preferences for AFVs.



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OBJECTIVES

- We design a set of **narrative messages** containing different types of information about EVs.
- We implement a **before-and-after stated choice experiment.**
- We address changes in **attitudinal and emotional evaluations** elicited by the messages.
- We investigate how these attitudinal changes can also elicit **changes in preferences** for fuel types.

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DATA COLLECTION

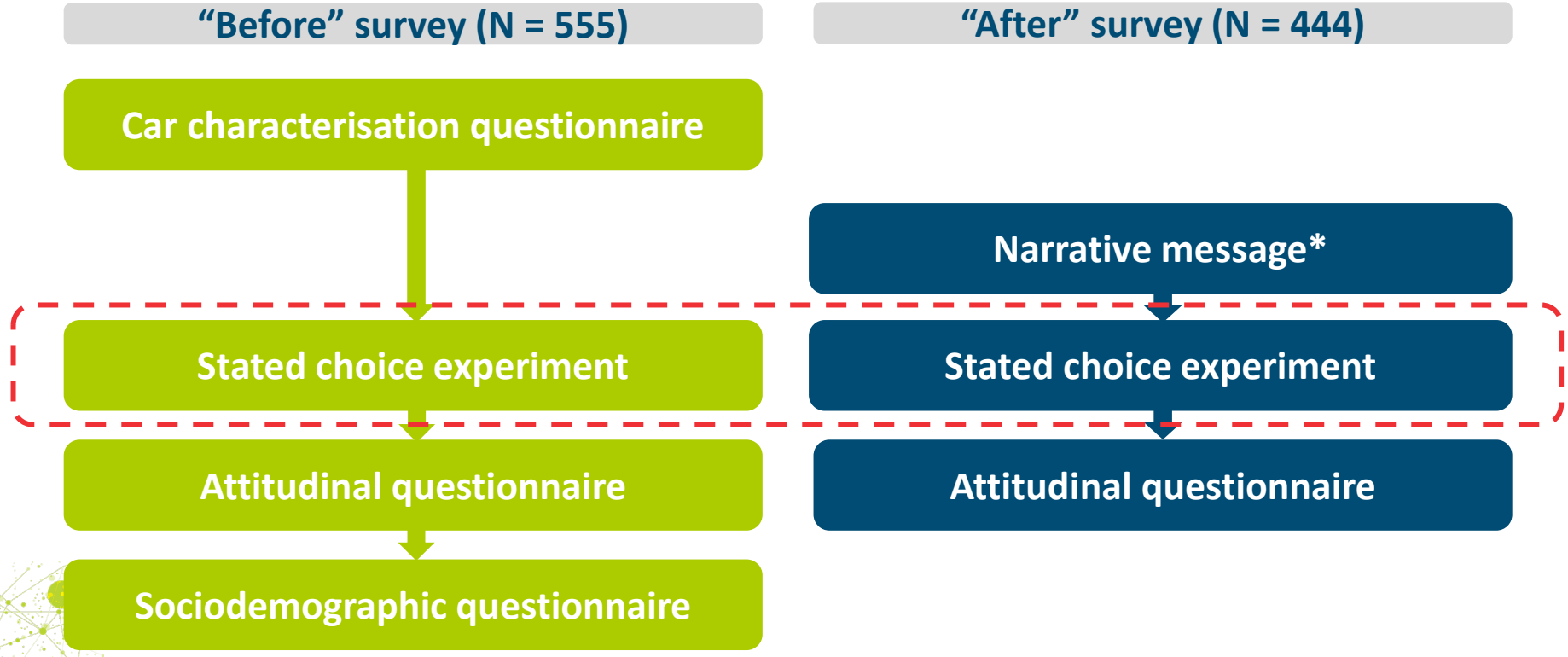
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DATA COLLECTION

General overview

- A “longitudinal” two-wave survey:



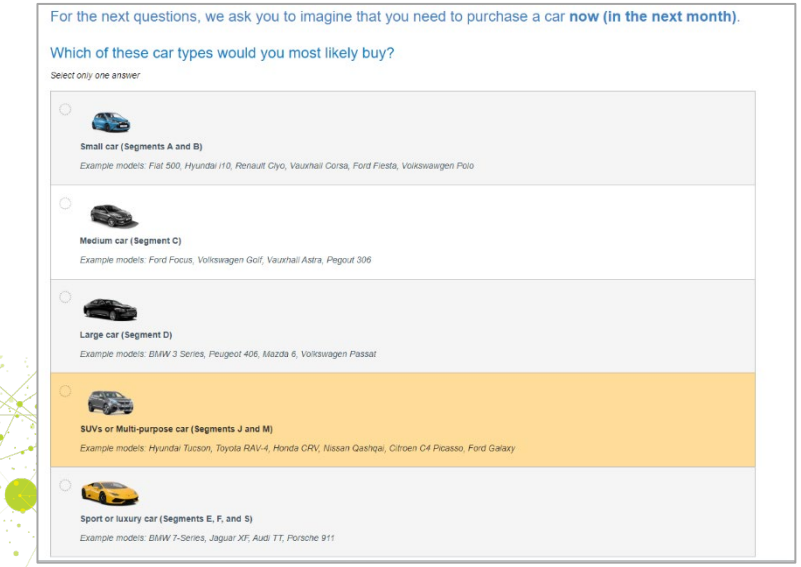
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STATED CHOICE EXPERIMENT

Before and *After* surveys

- **15 possible designs**: Five vehicle segments x Three purchase options (new, 2nd hand, both).
- Respondents were allocated to one design with two screening questions.



- Each respondent faced **nine choice situations** (simulated car purchases).
- **Five attributes** in each choice situation.

	Petrol	Electric	Hybrid-electric	None
Upfront cost *Includes purchase price plus any taxes, rebates, or subsidies that may apply.*	$32,000	£32,000	£31,000	
Operation cost (per 100 miles) *Expenses for fuel or electricity*	£16.5	£6.6	£5.1	
Distance to recharge/refuel *Average distance from home to the nearest charging station.*	0.8 miles	1.1 miles	0.8 miles	
Driving range *Maximum number of miles before recharge/refuel.*	480 miles	500 miles	885 miles	
Charging time *Time to get the vehicle charged up to 80% of its capacity (tank/battery).*	3 minutes	20 minutes	3 minutes	
Which would you choose?	○	○	○	○

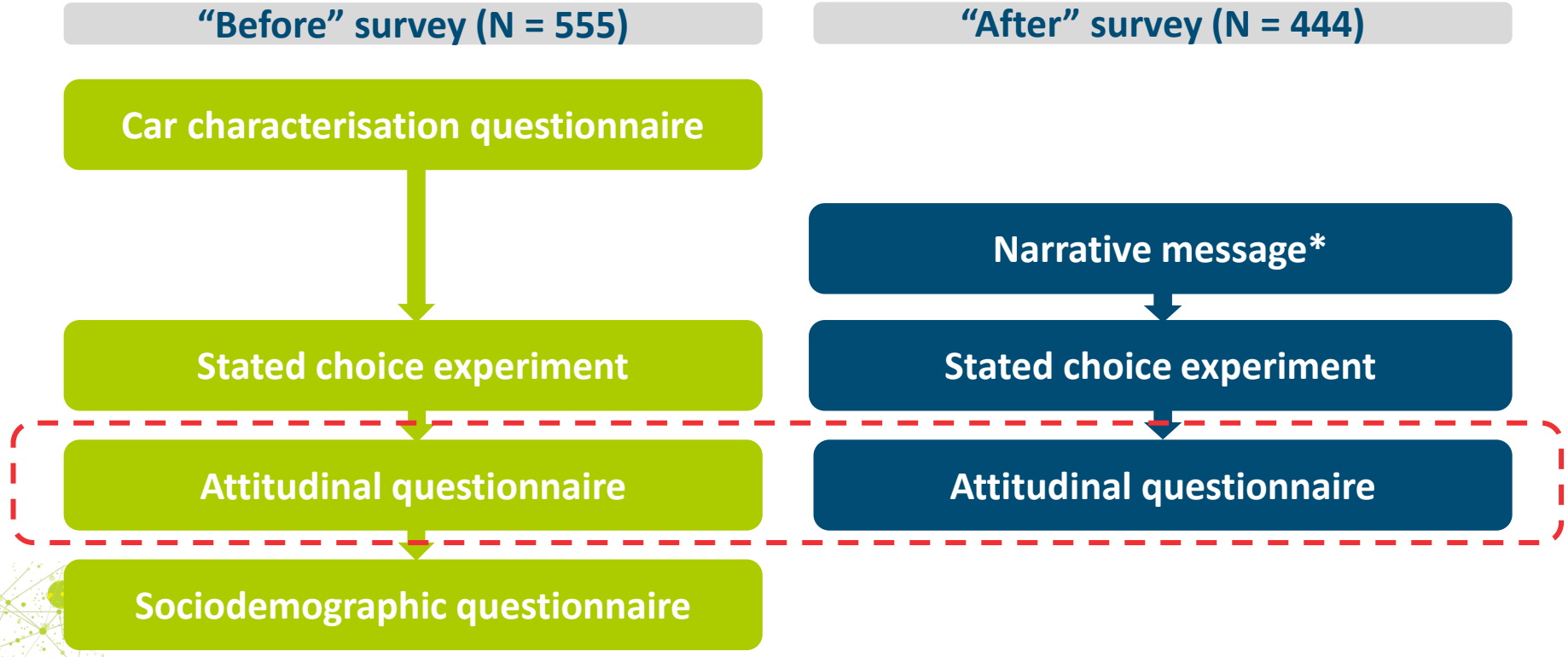
- More details in Domarchi et al. (2025).

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DATA COLLECTION

General overview



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COGNITIVE CONSISTENCY

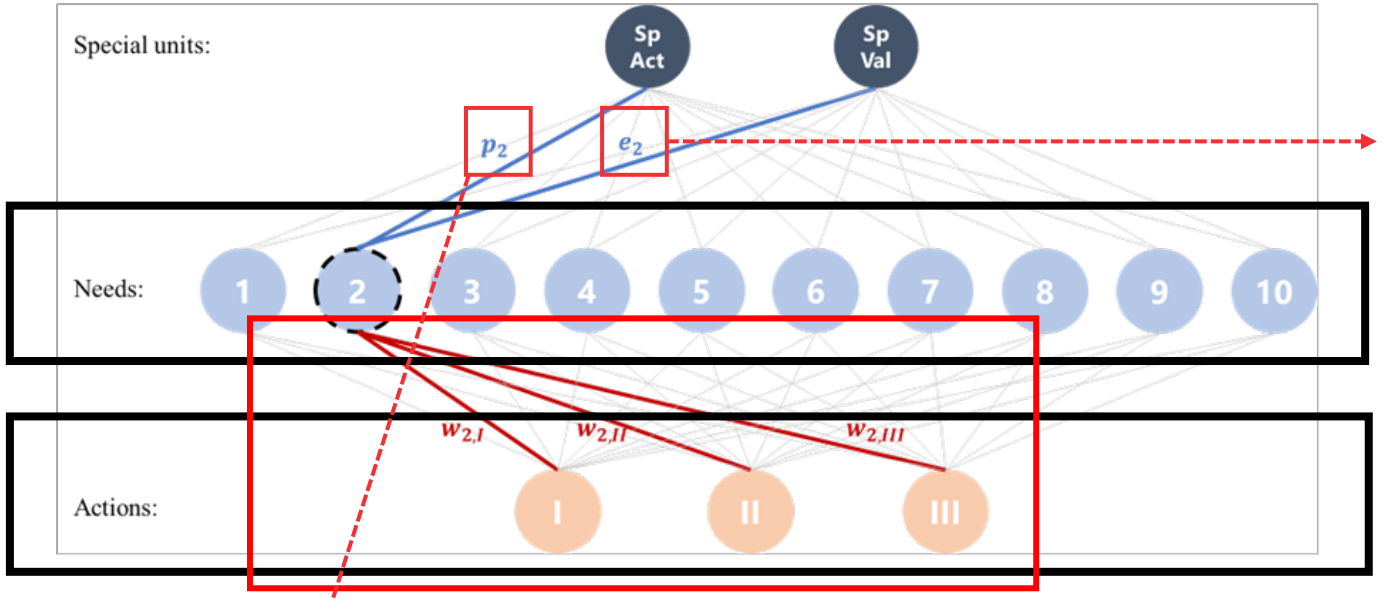
The HOTCO model

- We address the effects of attitudes and emotional evaluations using the **hot coherence (HOTCO) model** (Thagard, 1989; 2006).
- HOTCO represents decision-making as a network, in which nodes representing motivations (**needs**) interact with nodes representing behavioural responses (**actions**).
- When faced with a decision, individuals attempt to **maximise the coherence** between their beliefs and the possible actions.



COGNITIVE CONSISTENCY

A connectionist network and its inputs



Emotional score: Emotional assessment of the need

Needs to be satisfied.

Possible **actions** to undertake.

- **Facilitation weights** linking needs and actions:
  - Positive if the action facilitates the need (**coherence**).
  - Negative if the action impedes the need (**incoherence**).

Priority: Intrinsic importance of the need

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COGNITIVE CONSISTENCY

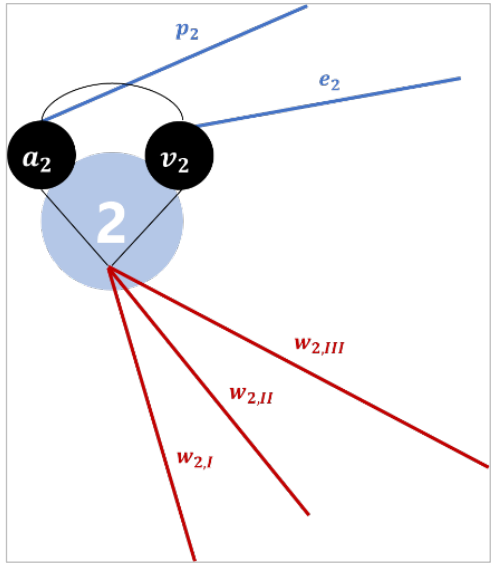
Questionnaire

- Motives (**needs**) for car purchase were sourced from the literature and validated with an exploratory survey:

Motive	Sentence
Environmental awareness	*A car that is environmentally friendly*
Performance	*A car that offers a good performance, in terms of speed, acceleration, handling, and brakes*
Purchase cost	*A car with a low purchase cost*
Pleasure/Enjoyment	*A car that makes you enjoy the driving experience*
Pro-technological orientation	*A car with advanced technological features and gadgets*
Pro-innovative orientation	*A car that satisfies your curiosity for innovation*
Comfort	*A car that makes you feel comfortable when driving*
Flexibility	*A car that provides flexibility for your daily activities*
Convenience	*A car that provides a convenient mean to carry out your daily activities*
Self-identification	*A car that distinguishes you from others*

COGNITIVE CONSISTENCY

Algorithm



- **Activation** (attitudinal evaluation) and **valence** (emotional appraisal) are spread iteratively through the network.
- The process is repeated until the network is **settled**.
- The final set of activations and valences is said to be a **coherent mental representation** of the decision.
- Different inputs lead to different settled networks!

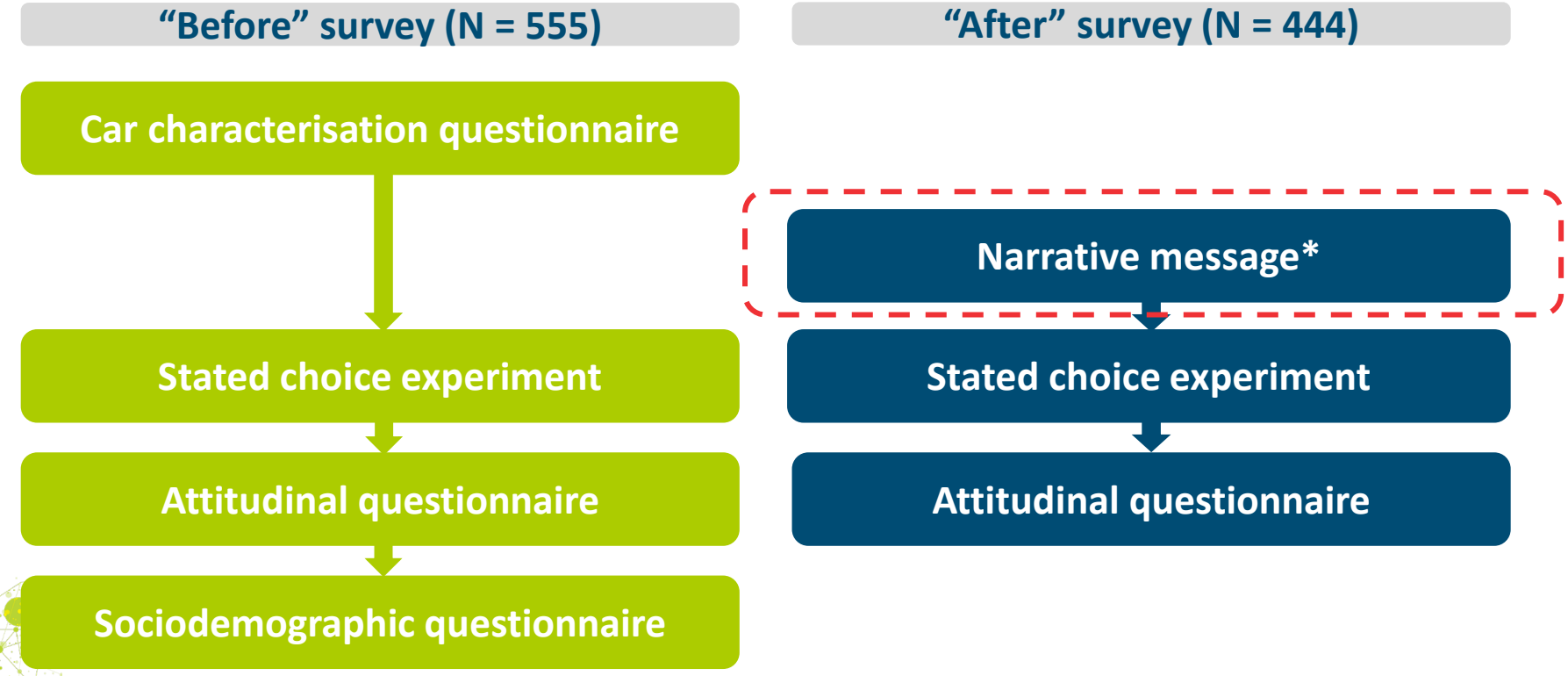
- More details in Domarchi et al. (2024).

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DATA COLLECTION

General overview



Four treatment groups received a message. A control group received no message

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NARRATIVE MESSAGE

- Participants in the *After* survey were randomly allocated to one of four messages combining one appeal and one type:
  - **Appeals**: emotional or rational.
  - **Types**: positive or negative.
- A fifth ("control") group received no message.
- The **narratives** in the messages focus on the experience of a generic EV buyer. They avoid any reference to specific details (e.g. age, sex, socioeconomic characteristics, geographic location).

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NARRATIVE MESSAGE

Structure	Rational appeal		Emotional appeal	
	Positive message	Negative message	Positive message	Negative message
Introduction	***I recently read*** *that transportation accounts for about 30% of the greenhouse emissions produced in the UK.*	***I recently read*** *that transportation accounts for about 30% of the greenhouse emissions produced in the UK.*	*I bought an electric car about three years ago.*	*I bought an electric car about three years ago.*
Message type	*So,* ***I bought*** *an electric car and discovered that it was a practical way of reducing my carbon footprint while still getting a good performance.*	*So,* ***I bought*** *an electric car but discovered that it wasn't a practical way of reducing my carbon footprint. The performance was also poor.*	*Driving my electric car has reduced my carbon footprint and I'm* ***happy*** *that I still get a great performance.*	*Driving my electric car hasn't reduced my carbon footprint much and I'm also* ***disappointed*** *with its performance!*
Emissions	*Electric cars rely on a rechargeable battery, and so they don't create any tailpipe emissions, which are a major source of pollution.*	*Although electric cars don't create any tailpipe emissions, their manufacturing process requires more energy and produces more pollution than manufacturing a conventional car.*	*My electric car doesn't create any tailpipe emissions because it runs on a rechargeable battery. I'm* ***delighted*** *by that.*	*Even though my electric car doesn't create any tailpipe emissions, manufacturing it produced a lot of pollution. That* ***upsets*** *me a lot.*
Reliance on fossil fuels	***Energy experts say*** *that not having a battery means no money spent on fuel and having the possibility of all energy being sourced domestically.*	***Energy experts say*** *that electric cars depend on the electricity power grid, and most of the UK's electricity is produced by burning fossil fuels.*	*I'm also very* ***happy*** *that I no longer have to spend money on fuel since I recharge my electric car at home.*	*I was also very* ***distressed*** *when I learned that most of the UK's electricity is produced by burning fossil fuels anyway even if I recharge my car at home.*
Pros and cons of batteries	*Furthermore,* ***energy scientists say*** *that electric car batteries can convert much more energy in actual movement than conventional engines, which means that their energy efficiency is also stronger.*	*Furthermore,* ***energy scientists say*** *that electric car batteries can require rare elements such as lithium and cobalt which can have enormous environmental costs. This also makes them expensive and difficult to recycle.*	*It's also a* ***relief*** *to me that my electric car is much more efficient than a petrol car since its batteries can convert much more energy to actual movement.*	*It's also a* ***shock*** *to me that electric batteries can be so expensive and difficult to recycle. They also need rare metals like lithium and cobalt which can have enormous environmental costs.*
Effect on the driving experience	*As a driver* ***I find that*** *electric cars are high performance vehicles and require less maintenance than petrol or diesel cars.*	*As a driver* ***I find that*** *shorter ranges and longer recharging times mean that every trip requires more planning than petrol or diesel cars.*	*I'm very* ***satisfied*** *with my driving experience. The motor is very quiet and smooth, and it requires less maintenance than gas engines.*	*I'm very* ***dissatisfied*** *with my driving experience. The shorter ranges and longer recharging times mean every trip requires a lot more planning than I'm used to.*
Summary and closing remarks	*Overall,* ***I think that*** *electric cars are a good choice to protect the environment and have a good driving experience.*	*Overall,* ***I don't think that*** *electric cars are the best choice to protect the environment, and they provide a poor driving experience.*	*I'm very* ***happy*** *with my decision to buy an electric car. I'm proud my decision helps protect the environment, and excited to take more trips and enjoy a great driving experience!*	*I'm very* ***unhappy*** *with my decision to buy an electric car. I'm ashamed to learn they are not the best choice to protect the environment and annoyed at the inconveniences that have spoiled my driving experience.*

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MODELLING

MODELLING

Changes in attitudinal and emotional evaluations

- We conducted a series of two-way multivariate analyses of covariance (MANCOVA) on score changes across all groups (excluding the control group) using individual respondents' sociodemographic characteristics and initial scores as covariates.

- To identify item-level effects and determine the change in HOTCO scores due to each message, we conducted a linear regression analysis for every questionnaire item. The general form of this linear regression model is as follows:

q: individual
k: item

$$\Delta z_{qk} = z_{qk,pre} + \alpha_k + \beta_{F+} \cdot F_q^+ + \beta_{F-} \cdot F_q^- + \beta_{em} \cdot EM_q + \beta_{emF-} \cdot (EM_q \times F_q^-) + \sum_{l=1}^{L} \beta_l \cdot X_{ql}$$

Score in the *Before* survey | Message effect | Message type: Positive/Negative | Message appeal: Emotional | Type x Appeal Interaction | Sociodemographic covariates

MODELLING

Discrete choice model specification

- We specify a discrete choice model that uses data from both surveys simultaneously to identify preference parameters affected by the narrative messages.
- Our specification has a mixed multinomial logit (MMNL) structure.
- The utility functions have the following generic form:

$$U_{jqt} = V_{jqt} + H_{ACT,jqt} + H_{VAL,jqt} + \sigma_j \cdot \eta_{jq} + \varepsilon_{jqt}$$

j: alternative
q: individual
t: choice task
g: experimental group
l: sociodemographic gorup

Observed utility of alternative j as perceived by individual q in choice task t.

HOTCO components (activations and valences of each alternative)

Panel effect. Random term distributed Normal with mean 0 and variance to be estimated.

MODELLING

Discrete choice model specification

- The observed utility functions depend on attributes, individual characteristics, and groups in the *After* survey:

j: alternative
q: individual
t: choice task
g: experimental group
l: sociodemographic group
k: attribute

$$V_{jqt} = \left(a_j + \sum_{g=1}^{4} \alpha_{jg} \cdot r_{gq} \right) + \sum_{k=1}^{K} \left(\left(\beta_{jk} + \sum_{g=1}^{4} \beta_{jgk} \cdot r_{gq} + \sum_{l} \beta_{jkl} \cdot s_{lq} \right) \cdot X_{jqkt} \right) + \sum_{w=1}^{W} \left(\left(\gamma_w + \sum_{g=1}^{4} \gamma_{gw} \cdot r_{gq} + \sum_{l} \gamma_{wl} \cdot s_{lq} \right) \cdot I_{jqwt} \right)$$

Alternative-specific constants

Preferences for attributes

Inertia parameters

Experimental group-specific terms measuring variation in preference parameters due to each message

Sociodemographic group-specific terms measuring variation in preference parameters due to belonging to a sociodemographic group

MODELLING

Discrete choice model specification

- We treat the HOTCO terms as "latent variables" (unobserved initially but measured as a combination of the HOTCO inputs that were collected using the questionnaire), considering alternative-specific error terms:

j: alternative
q: individual
t: choice task
g: experimental group
l: sociodemographic group
k: attribute

$$H_{ACT,jqt} = \left(\theta_{ACT} + \sum_{g=1}^{4} \theta_{ACT,g} \cdot r_{gq} + \sum_{l} \theta_{ACT,l} \cdot s_{lq} \right) \cdot \left(ACT_{jqt} + \sigma_{ACT,jq} \cdot \zeta_{ACT,jq} \right)$$

$$H_{VAL,jqt} = \left(\theta_{VAL} + \sum_{g=1}^{4} \theta_{VAL,g} \cdot r_{gq} + \sum_{l} \theta_{VAL,l} \cdot s_{lq} \right) \cdot \left(VAL_{jqt} + \sigma_{VAL,jq} \cdot \zeta_{VAL,jq} \right)$$

Experimental group-specific terms measuring variation in preference parameters due to each message

Sociodemographic group-specific terms measuring variation in preference parameters due to belonging to a sociodemographic group

Alternative-specific error terms for HOTCO activations and valences

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RESULTS

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RESULTS

Changes in observed choices

Survey	Fuel type / Variable	Group				
		0	1	2	3	4
		Control	Rational/ Positive	Rational/ Negative	Emotional/ Positive	Emotional/ Negative
Before (*Base choices, % per alternative*)	EV	41.6	38.3	38.8	40.6	33.5
	HEV	42.1	43.2	45.8	45.7	50.5
	ICE	11.6	15.0	10.8	10.6	12.7
	Opt-out	4.6	3.5	4.6	3.0	3.4
After (*Change in percentage points per alternative*)	EV	-2.9	**+2.9**	**-5.0**	**+6.9**	**-1.9**
	HEV	-0.5	+2.5	-1.8	-5.8	-0.5
	ICE	+4.9	**-4.9**	**+5.1**	**-1.2**	**+1.3**
	Opt-out	-1.5	-1.5	-0.4	+0.0	+1.0

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RESULTS

Cognitive consistency questionnaire

- Significant changes in HOTCO questionnaire items:

Dimension	Motive	*Before* Survey score (Full sample)	Mean score change per message (*After* survey)				
			0	1	2	3	4
			Control	Rational/ Positive	Rational/ Negative	Emotional/ Positive	Emotional/ Negative
Priority scores	Pro-technological orientation	0.039	–	–	-0.122	–	-0.122
	Comfort	0.699	–	–	+0.088	–	–
	Convenience	0.708	–	+0.096	+0.097	+0.096	+0.097
Emotional scores	Environmental awareness	0.050	–	+0.124	–	+0.124	–
	Performance	0.266	–	–	+0.133	–	+0.133
Facilitation weights – EV	Environmental awareness	0.509	–	–	-0.218	–	-0.218
Facilitation weights – ICE	Environmental awareness	-0.442	–	+0.156	–	+0.156	–
	Pro-technological orientation	0.346	–	–	–	–	+0.179

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RESULTS

Discrete choice model (1)

Variable	Alternative	Interaction	Baseline	Variations for each experimental group				
				0	1	2	3	4
				Control	Rational/ Positive	Rational/ Negative	Emotional/ Positive	Emotional/ Negative
Alternative-specific constants								
Mean	Opt-out	–	0	–	–	–	–	–
	EV	–	7.819 (12.59)	0.274 (0.58)	1.292 (1.09)	-0.731 (-1.09)	1.035 (1.89)	-0.563 (-1.20)
	HEV	–	8.803 (15.36)	0.311 (0.67)	0.569 (0.52)	-1.325 (-2.32)	-0.712 (-1.07)	-0.328 (-0.69)
	ICE	–	6.22 (9.45)	0.745 (1.45)	-0.308 (-0.25)	-0.918 (-1.51)	-0.991 (-1.45)	-1.788 (-2.09)
Standard deviation (Panel effect)	Opt-out	–	4.116 (10.94)	–	–	–	–	–
	EV	–	0.324 (1.50)	–	–	–	–	–
	HEV	–	0.005 (0.03)	–	–	–	–	–
	ICE	–	0.615 (2.46)	–	–	–	–	–
Alternative attributes								
Price (x GBP 1,000)	EV, HEV, ICE	–	-0.177 (-17.25)	–	-0.061 (-2.17)	–	–	–
Operational cost (x GBP 1,000/Year)	EV, HEV, ICE	–	-2.275 (-11.00)	–	–	–	–	–
Driving range (x 100 miles)	EV	Base	0.470 (9.35)	–	–	–	–	–
		× Gender = Female	–	–	–	-0.245 (-2.49)	-0.243 (-2.30)	–
		× Region = Gr. London	–	–	–	–	-0.341 (-2.21)	-0.36 (-2.11)
	HEV, ICE	*Base*	0.321 (8.80)	–	–	–	0.151 (1.73)	–
		× Cars > 1	0.067 (2.54)	–	–	–	–	–
		× Ethnicity = Non-white	-0.077 (-2.29)	–	–	–	–	–
		× High education	-0.087 (-3.02)	–	–	–	–	–
		× Not currently working	0.082 (2.20)	–	–	–	–	–
		× Gender = Female	–	–	–	–	-0.125 (-1.67)	–
Charging distance (miles)	EV, HEV, ICE	*Base*	-0.372 (-4.24)	–	–	–	–	–
		× Charger awareness	0.265 (2.00)	–	–	–	–	–
Charging time (hours)	EV, HEV, ICE	*Base*	-1.073 (-9.38)	–	–	–	–	–
		× Cars > 1	0.224 (1.51)	–	–	–	–	–
		× Household with kids	0.341 (2.43)	–	–	–	–	–
Annual mileage (x 1,000 miles)	ICE	–	0.054 (6.78)	–	–	–	–	–

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RESULTS

Discrete choice model (2)

Variable	Alternative	Interaction	Baseline	Variations for each experimental group				
				0 Control	1 Rational/ Positive	2 Rational/ Negative	3 Emotional/ Positive	4 Emotional/ Negative
Inertia parameters								
Fuel type inertia	EV, HEV, ICE	–	0.773 (3.12)	–	–	–	–	1.363 (2.05)
New vehicle inertia	EV, HEV, ICE	–	0.479 (3.27)	–	–	0.980 (2.57)	–	–
HOTCO activation								
Mean	EV, HEV, ICE	Base	0.165 (1.07)	–	0.399 (1.90)	0.511 (2.54)	0.384 (2.94)	0.356 (2.67)
Standard deviation (Error component)	EV	–	-2.855 (-2.71)	–	–	–	–	–
	HEV	–	1.143 (1.25)	–	–	–	–	–
	ICE	–	-2.752 (-2.48)	–	–	–	–	–
HOTCO valence								
Mean	EV, HEV, ICE	Base	0.887 (3.43)	–	-1.363 (-3.99)	-0.334 (-1.23)	-0.581 (-2.11)	-0.337 (-1.21)
Standard deviation (Error component)	EV	–	1.625 (3.69)	–	–	–	–	–
	HEV	–	0.693 (2.69)	–	–	–	–	–
	ICE	–	1.427 (3.76)	–	–	–	–	–
Level-of-fit indicators								
Log-likelihood (*)	-6296.85							
Log-likelihood (market shares)	-8627.72							
Rho-square (market shares)	0.270							
Number of parameters	64							
AIC	12721.71							
BIC	13168.83							

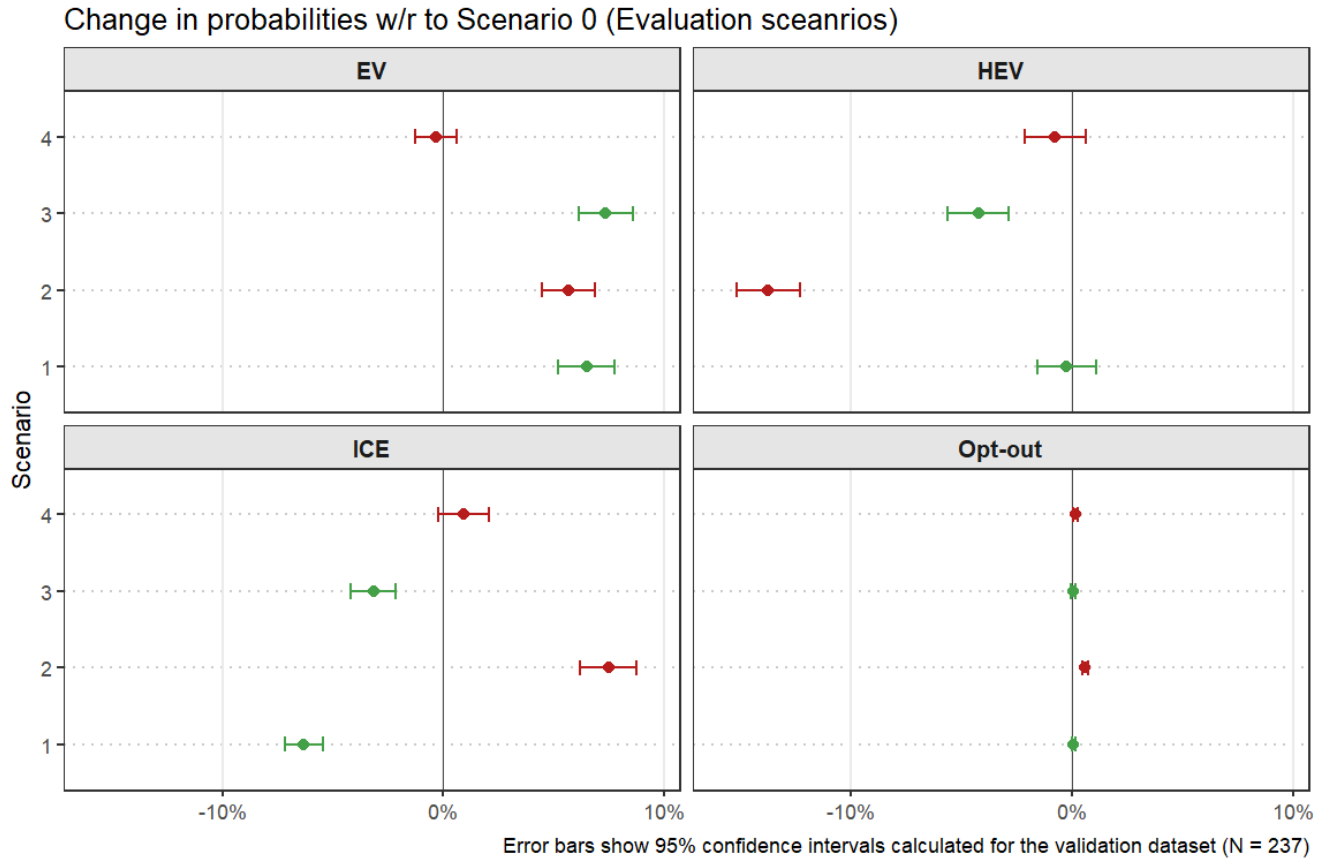
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RESULTS

Forecasts – Validation scenarios

- We use the model to test scenarios in a validation dataset (N = 235, from a revealed preference study (Domarchi and Cherchi, 2024).
- First, we test four **validation scenarios** where all participants are assumed to receive the same message.



1: Positive, Rational
2: Negative, Rational
3: Positive, Emotional
4: Negative, Emotional

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RESULTS

- **Positive messages about EVs** are associated with higher EV choice probabilities. This is compensated by reduced choice probabilities for HEVs and ICE vehicles.
- **Negative messages about EVs** are associated with a cross effect: preferences for ICE vehicles increase at the expense of HEVs.
- No significant effects in preferences are associated with the **negative message with emotional appeal**.

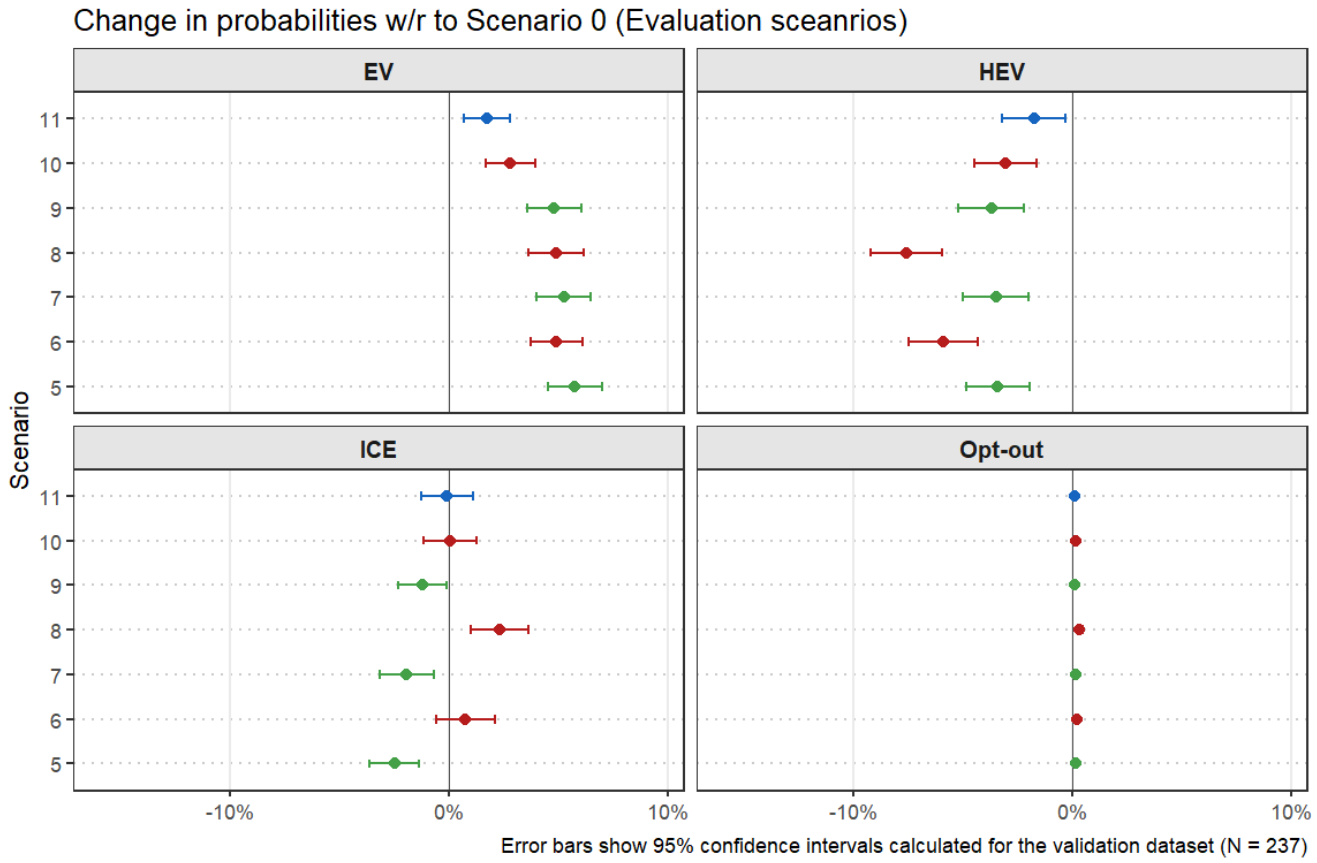
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Forecasts – Policy scenarios

- We then test seven **policy scenarios** where participants are randomly assumed to receive one of the four messages. Different messages are "prioritised" in each scenario.



5: 70% positive
6: 70% negative
7: 60% positive (emp. Rational)
8: 60% negative (emp. Rational)
9: 60% negative (emp. Emotional)
10: 60% negative (emp. Emotional)
11: 60% control

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RESULTS

Forecasts – Policy scenarios

- **Predominately EV-positive scenarios (5, 7, 9)** are associated with higher EV choice probabilities.
  - With a higher proportion of messages with a rational appeal (5, 7), there is an added benefit of reduced ICE choice probabilities.
- **Predominately EV-negative scenarios (6, 8, 10)** are not associated with lower EV choice probabilities. Instead, HEV choice probabilities decrease.
  - It must be noted that at least some members of the population receive positive information about EVs in these scenarios.
  - This hints at the importance of awareness campaigns to counterbalance the effects of negative publicity about EVs.

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DISCUSSION

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SUMMARY OF FINDINGS

- **Narrative messages were associated with significant changes in attitudes and preferences for fuel types.**
  - Messages about EVs also changed attitudes toward ICE vehicles and HEVs.
  - Positive rational messages had the strongest effect on EV preferences. They also reduced preferences for ICE vehicles, likely due to increased environmental awareness.
  - Respondents were generally more responsive to positive than negative information about EVs.
- **Providing positive information can offset the effects of negative EV messaging.**

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DISCUSSION AND FURTHER RESEARCH

- Suggested for further research:
  - Use longitudinal data over a longer period and repeated exposure.
  - Examine message source and framing.
  - Use representative samples.
- In the current era, uncovering the mechanisms by which individuals react to externally provided information is essential for understanding behavioural change.



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How effective are narrative messages in changing attitudes and preferences for electric vehicles? A before-and after stated choice experiment

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YOUR QUESTIONS



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ADDITIONAL MATERIAL

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DATA COLLECTION

Sample description (*Percentages within each group*)

Variable	Value	Full Sample	Groups				
			0	1	2	3	4
			Control	Rational/ Positive	Rational/ Negative	Emotional/ Positive	Emotional/ Negative
Annual HH income (thousands of GBP)	Less than 30	**24.3**	24.2	23.5	26.5	28.1	19.4
	More than 30 and less than 45	**25.2**	27.5	30.9	22.9	21.9	23.7
	More than 45 and less than 60	**19.8**	22.0	8.6	20.5	22.9	23.7
	60 or more	**30.6**	26.4	37.0	30.1	27.1	33.3
Cars per household	1	**50.2**	45.1	45.7	62.7	47.9	50.5
	2	**39.6**	44.0	38.3	32.5	38.5	44.1
	3 or more	**10.1**	11.0	16.0	4.8	13.5	5.4
Fuel types in households	Households owning an EV	**2.9**	1.1	2.5	4.8	4.1	2.1
	Households owning a HEV	**6.1**	7.7	7.4	4.8	5.2	5.4
	Households owning an ICE	**96.2**	96.7	95.1	96.4	94.8	97.8
Persons per household	1	**11.7**	11.0	13.6	16.9	11.5	6.5
	2	**36.7**	34.1	37.0	33.7	35.4	43.0
	3	**19.4**	18.7	24.7	19.3	17.7	17.2
	4 or more	**32.2**	36.3	24.7	30.1	35.4	33.3
Gender	Female	**62.8**	70.3	59.3	60.2	53.1	71.0
Age	20 – 29	**17.1**	19.8	13.6	14.5	17.7	19.4
	30 – 39	**28.2**	27.5	27.2	30.1	31.3	24.7
	40 – 49	**20.7**	22.0	19.8	22.9	17.7	21.5
	50 – 59	**20.9**	19.8	23.5	18.1	19.8	23.7
	60 or over	**13.1**	11.0	16.0	14.5	13.5	10.8
Ethnicity	Other than White British	**12.8**	19.8	9.9	10.8	13.6	9.7
Valid sample size		**444**	**91**	**81**	**83**	**96**	**93**

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RESULTS

Predicted probabilities and elasticities – Policy scenarios

- Scenarios tested in a validation dataset (N = 235, from a revealed preference study: Domarchi and Cherchi, 2024):

Policy scenario	Specification	Share of the population exposed to each message type (%)				
		Control	Rational/ Positive	Rational/ Negative	Emotional/ Positive	Emotional/ Negative
5	*Mostly positive*	10	35	10	35	10
6	*Mostly negative*	10	10	35	10	35
7	*Rational and positive*	10	50	20	10	10
8	*Rational and negative*	10	20	50	10	10
9	*Emotional and positive*	10	10	10	50	20
10	*Emotional and negative*	10	10	10	20	50
11	*Reduced information*	60	10	10	10	10

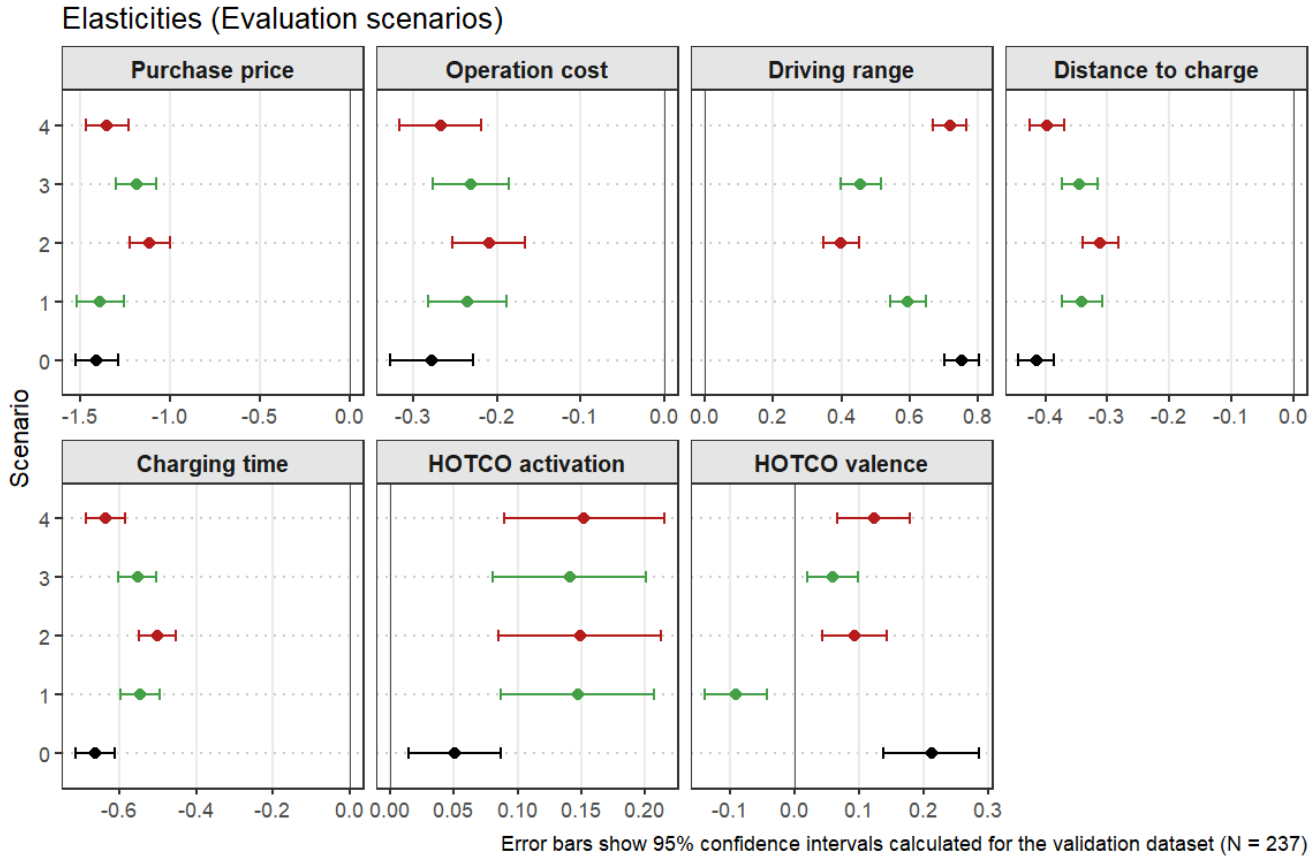
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RESULTS

Forecasts – Validation scenarios

- We use the model to test scenarios in a validation dataset (N = 235, from a revealed preference study (Domarchi and Cherchi, 2024).
- First, we test four **validation scenarios** where all participants are assumed to receive the same message.



1: Positive, Rational
2: Negative, Rational
3: Positive, Emotional
4: Negative, Emotional

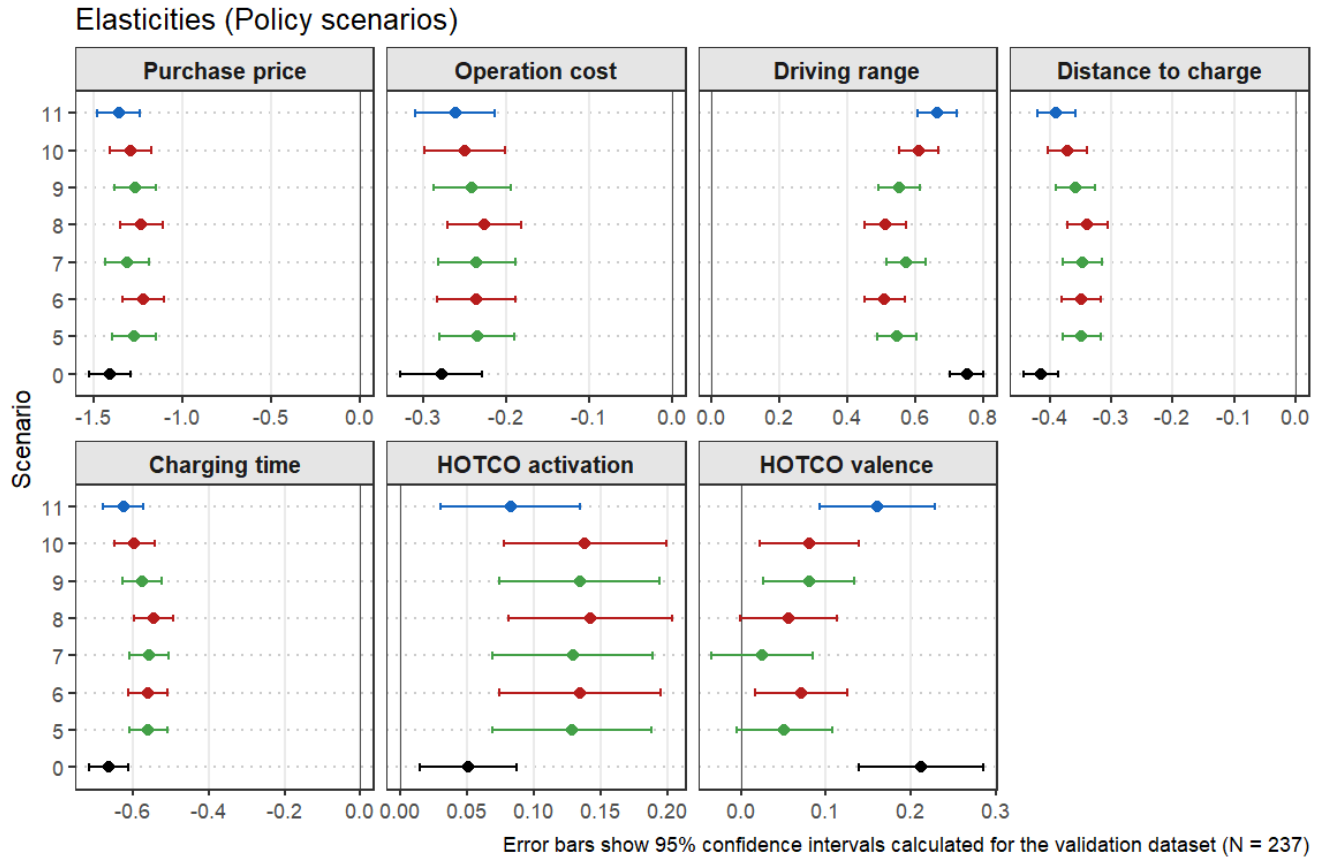
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RESULTS

Forecasts – Policy scenarios

- We then test seven **policy scenarios** where participants are randomly assumed to receive one of the four messages. Different messages are "prioritised" in each scenario.



5: 70% positive
6: 70% negative
7: 60% positive (emp. Rational)
8: 60% negative (emp. Rational)
9: 60% negative (emp. Emotional)
10: 60% negative (emp. Emotional)
11: 60% control