

“Your Car Looks Like You!”

Consumer Evaluation of Anthropomorphized Products

Kenya Hirashima

Daiki Ito

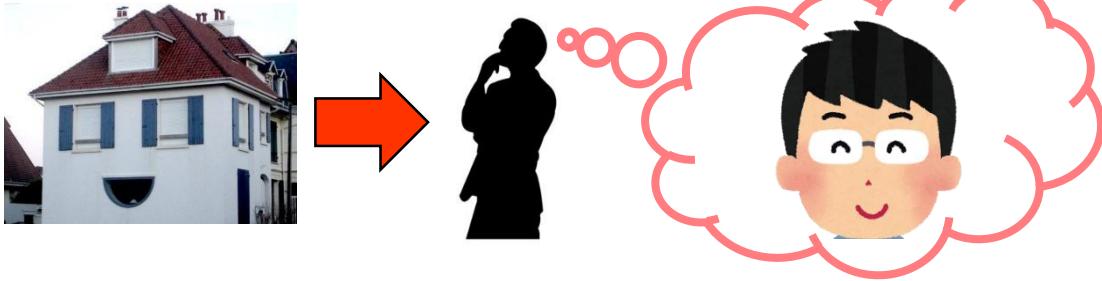
Rei Arai

Shingo Kajita

Introduction I

Anthropomorphism

Anthropomorphism



▼ **Anthropomorphism** means attributing human characteristics to nonhuman objects.

(Guthrie, 1993)

▼ Consumers **anthropomorphize** car's headlights as eyes and a front grille as a mouth.

(e.g., Coss, 2003; Erk, Spizer, Wunderlich, and Walter, 2002)

Anthropomorphism for cars

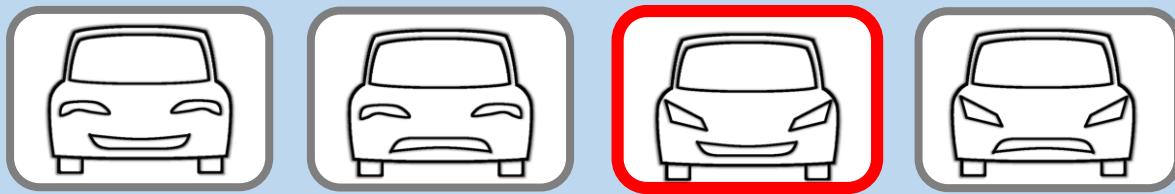
There are many patterns of cars' "faces" in the real market.



Previous study of the products' "faces"

Some studies have investigated whether product design elements corresponding to "facial" features affect product liking.

▼ Products with slanted eyes and an upturned mouth are the most preferred by consumers. (Landwehr, et al., 2011)



Based on the **pleasure-arousal theory**, previous studies have proposed that consumers prefer the cars best with a certain "face", *i.e.*, the combination of headlights of slanted eyes and a front grille of an upturned mouth because they perceive higher **aggressiveness (arousal)** from the slanted eyes as well as higher **friendliness (pleasure)** from the upturned mouth.

Introduction II

Limitations of Landwehr, et al. (2011)

Problem 1

They considered only a 2 (slanted and arched eyes) x 2 (upturned and downturned mouths) product design.

Problem 2

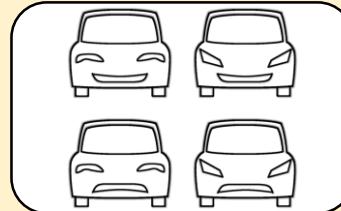
They considered only two factors of product personality. (aggressiveness and friendliness).

Problem 3

They insisted a certain face is the best: They implicitly assumed homogeneity in preference for product designs/images.

Research question 1

Is it enough to consider only a 2 x 2 product design and only two factors of product personality?



Research question 2

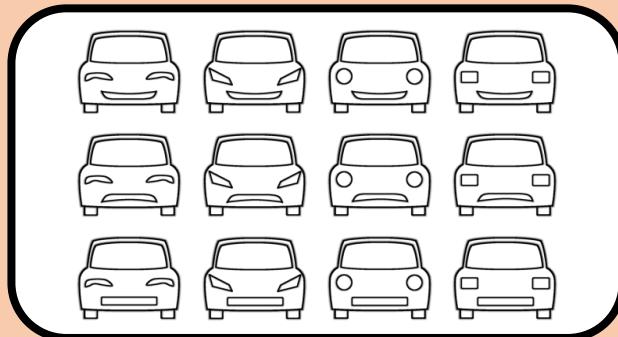
Is it true that the car with slanted eyes and upturned mouth is the best?

We try to answer these questions by conducting two studies.

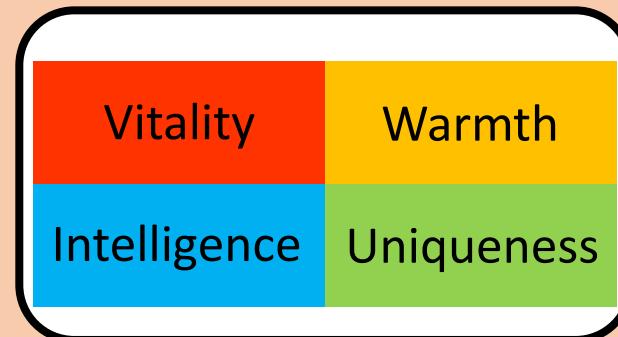
Study 1 (see pp.4-5)

To solve **problems 1 and 2**, we consider a 4 x 3 design with four factors of product personality.

a 4 x 3 design



Four factors of product personality



Study 2 (see pp.6-7)

To solve **problem 3**, we assume heterogeneity in preference for product designs/images.



Study 1 : Outline

The aim of Study 1

Landwehr, *et al.* (2011) considered only a 2 (slanted and arched eyes) x 2 (upturned and downturned mouths) product design with two factors of product personality. To solve these problems, we adopt a 4 x 3 design with four factors of product personality based on Aaker's brand personality scaling (1997).

Research design

Respondents

227 university students in Tokyo

Valid respondents

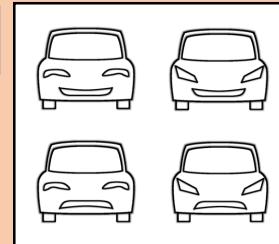
216 (95%)

Step 1

Based on a design database, we identified **twelve patterns of cars' "faces"** (four eyes, *i.e.*, slanted, arched, squared, and round eyes and three mouths, *i.e.*, upturned, downturned, and horizontal mouths).

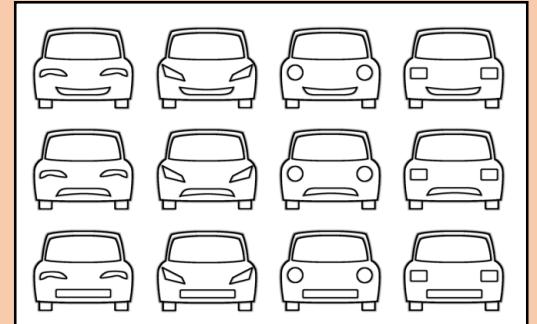
Previous study

These designs cover **25%** of the Japanese light vehicles' designs.



This study

These designs cover **92%** of the Japanese light vehicles' designs.



Step 2

Based on Aaker's brand personality scaling (1997), we asked the respondents to rate the extent to which **one-hundred-fourteen personality traits** describe each of the twelve patterns of cars' "faces" created in Procedure 1.



• active 1 2 3 4 5
• adventurous 1 2 3 4 5
• ageless 1 2 3 4 5
⋮ ⋮

x twelve patterns of "faces"

Step 3

We conducted exploratory factor analysis to summarize the personality traits mentioned in Procedure 2. As a result, **four factors of personality dimensions** are extracted (see the next page).

Study 1: Results

Results of exploratory factor analysis

Four factors were extracted as follows. We labeled each of them as **vitality**, **warmth**, **intelligence**, and **uniqueness**, respectively.

	Vitality	Warmth	Intelligence	Uniqueness
X_1 : Active	0.80	-0.01	-0.16	-0.17
X_2 : Confident	0.80	-0.09	0.00	-0.13
X_3 : Aggressive	0.77	-0.08	-0.17	-0.12
X_4 : Athlete	0.75	-0.23	0.08	-0.16
X_5 : Leader	0.74	-0.07	0.34	0.01

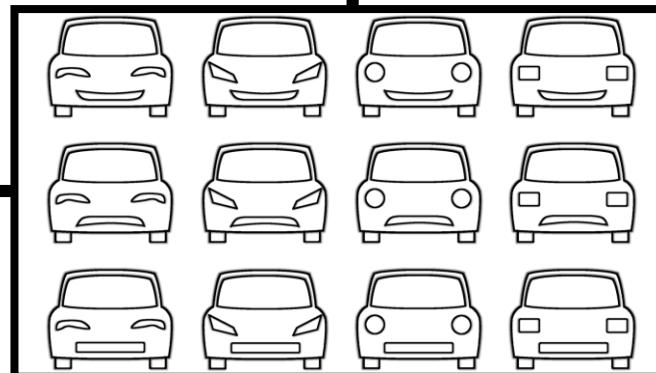
	Vitality	Warmth	Intelligence	Uniqueness
X_{43} : Friendly	0.03	0.80	-0.17	0.03
X_{44} : Smooth	-0.01	0.79	-0.18	0.00
X_{45} : Corporate	0.01	0.77	0.13	0.05
X_{46} : Happy	0.30	0.77	-0.18	0.10
X_{47} : Warm	-0.01	0.77	0.01	0.05

Vitality

Warmth

Intelligence

Uniqueness

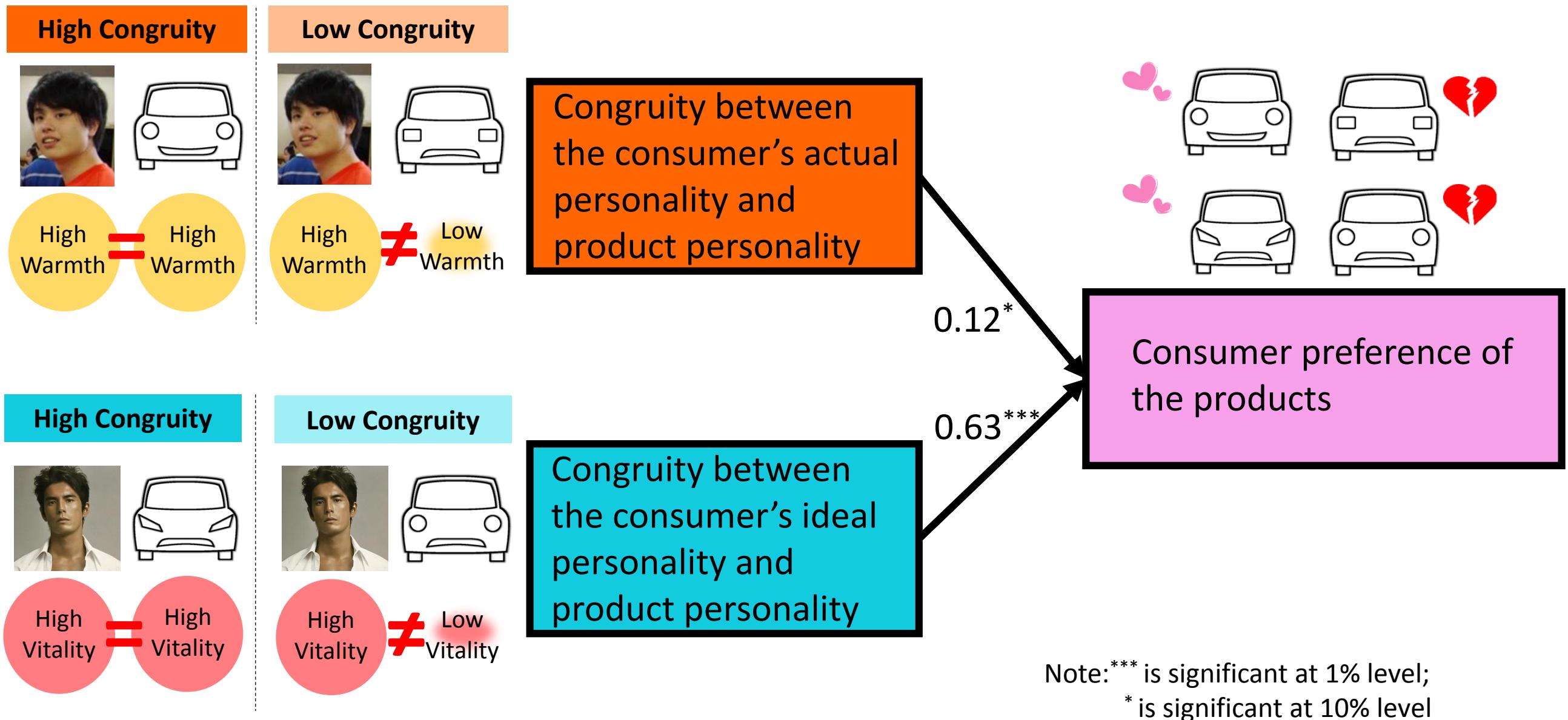


	Vitality	Warmth	Intelligence	Uniqueness
X_{78} : Intelligence	0.02	-0.05	0.71	0.20
X_{79} : Practical	0.15	-0.07	0.66	0.33
X_{80} : Mature	0.27	-0.30	0.66	0.11
X_{81} : Responsible	0.22	0.15	0.62	-0.09
X_{82} : Hard-Working	-0.22	0.27	0.60	0.08

	Vitality	Warmth	Intelligence	Uniqueness
X_{100} : Surprising	0.14	-0.09	-0.09	0.62
X_{101} : Unique	0.25	-0.14	-0.14	0.57
X_{102} : Special	0.29	-0.09	0.14	0.55
X_{103} : Tasteful	-0.01	0.17	0.26	0.54
X_{104} : Original	0.18	-0.24	0.01	0.50

➔ The results show that consumers perceive that products' "faces" have four distinct personality dimensions.

Study 2 : Results



→ Consumers prefer products with high congruity between the consumers' actual/ideal personality and product personality.

Conclusion

Academic implication

Three problems of Landwehr, *et al.* (2011)

1. They considered only **four** patterns of faces.
2. They considered only **two** factors of product personality.
3. They assumed **homogeneity** in consumer preference for product designs/images.

Solutions in our research

1. We identified **twelve** patterns of faces.
2. We identified **four** factors of product personality.
3. We found **heterogeneity** in consumer preference for product designs/images.

Managerial implication

The results show that **congruity** between the consumer's actual/ideal personality and product personality has a positive effect on the consumer **preference** of the product.

Car manufacturers and dealers should make a personality map to match their customers' needs and/or prevent cannibalization.

Congruity between the consumer's actual personality and product personality

+

Congruity between the consumer's ideal personality and product personality

+

Consumer preference of the products

