

Aesthetics is in the usability of the beholder

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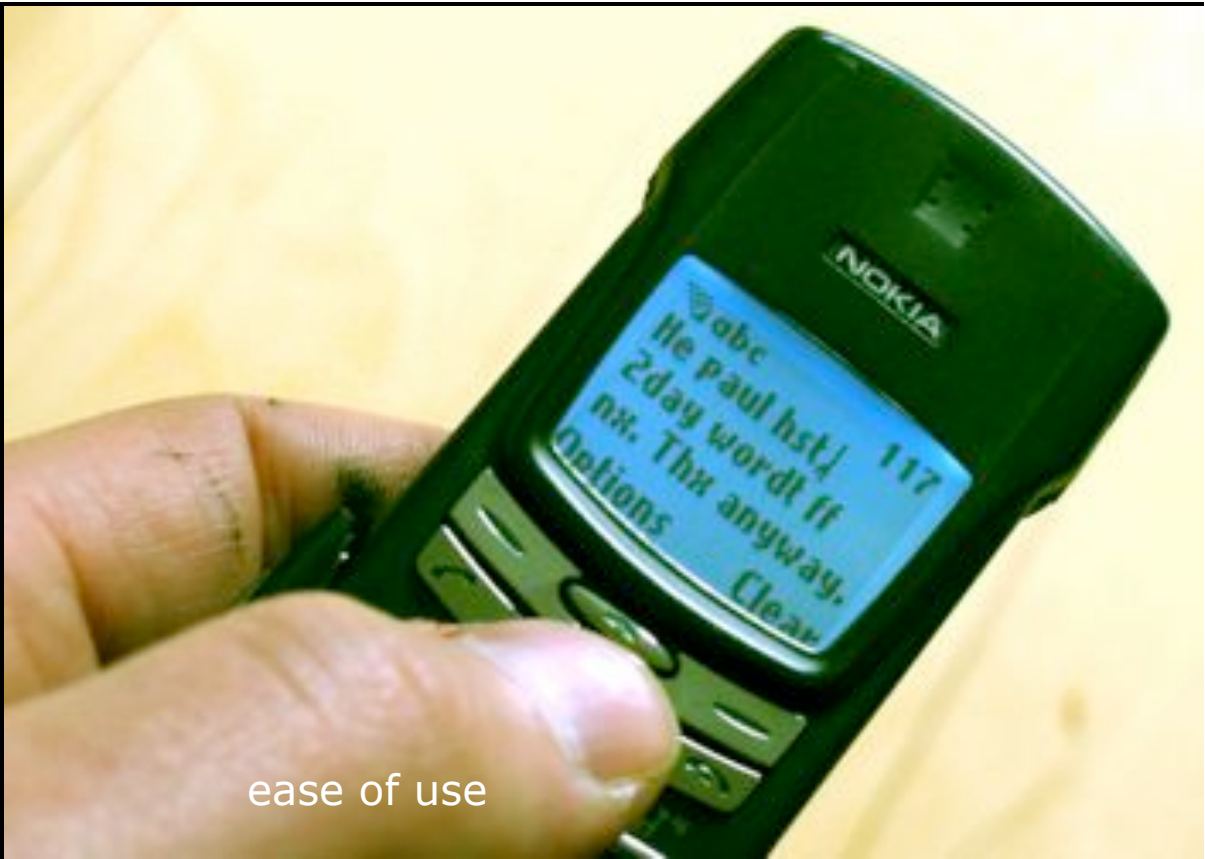




beautiful = usable

pleasant = beneficial

beneficial = pleasant



ease of use



comfort

Big cat scan **Lion goes to hospital**



trust

Gomor, a lioness, has a Cat scan at a hospital in Haifa, Israel, yesterday to see whether she has a disease causing vitamin A deficiency (Photograph: Pavel Wollberg/EPA)



sense & simplicity

product experience

... the awareness of the psychological effects elicited by the interaction with a product, including the degree to which all our senses are stimulated [aesthetic* pleasure], the meanings and values we attach to the product [construction of meaning], and the feelings and emotions that are elicited [emotional response]

* as opposed to *anaesthetic*



repeated **bodily** interactions [experiences] have properties in common

example

entering and leaving 'containers' [e.g. house, car, bed]

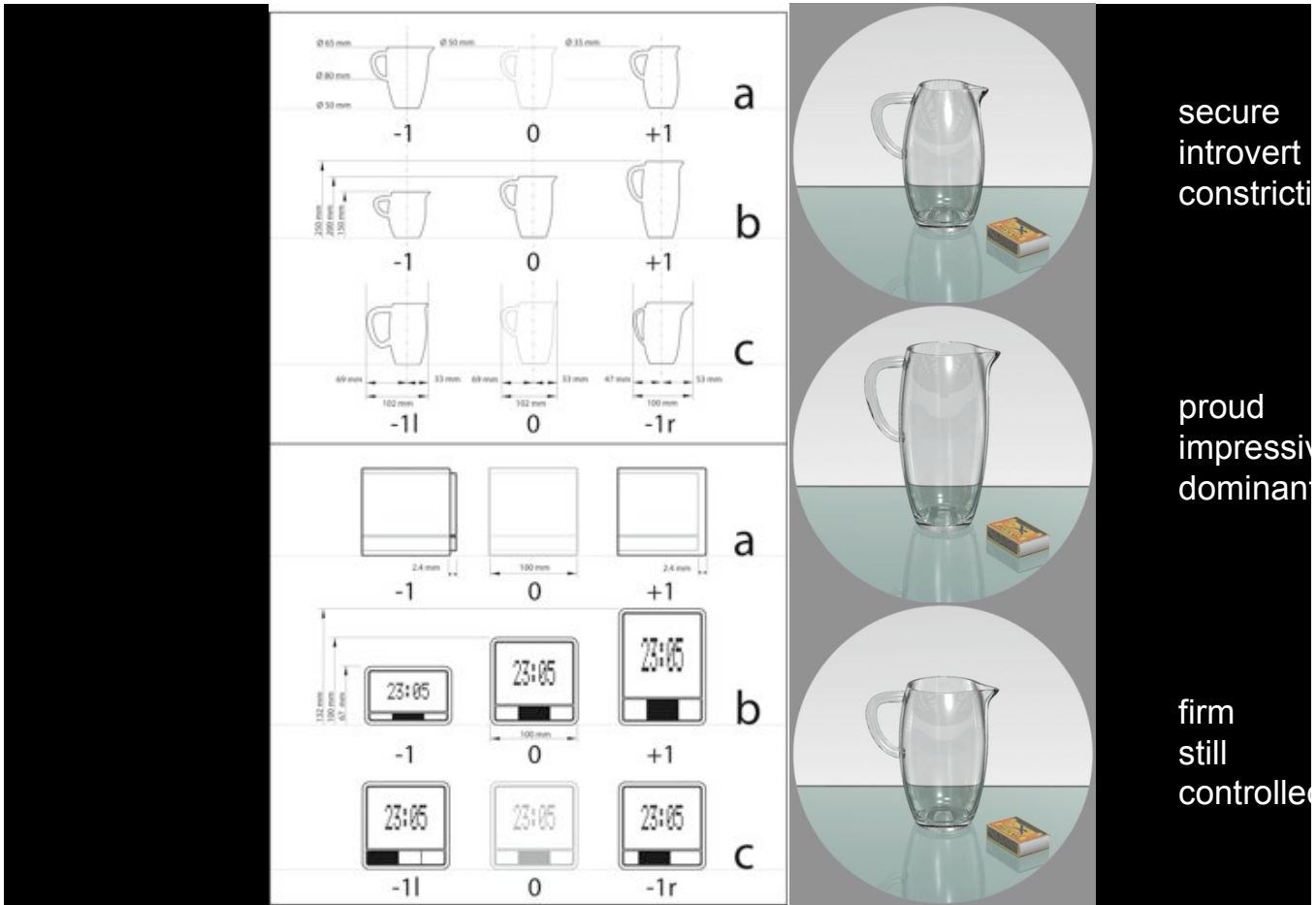
'inside-outside-passage-person' properties are laid down in an image schema

recognizing these patterns in a structure – such as a product – enables us to understand its expression

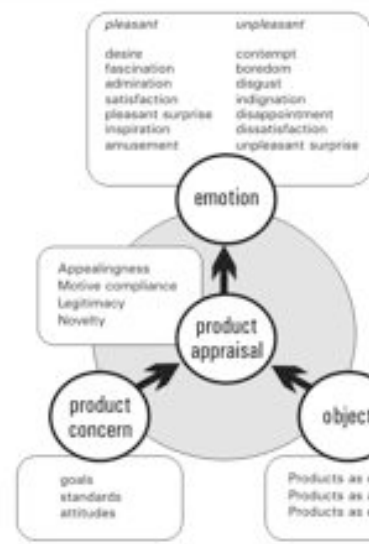
meaning



Van Rompay, Hekkert, Saakes, & Russo (2005).
Grounding abstract object characteristics in embodied interactions. *Acta Psychologica*, 119, 315-351.

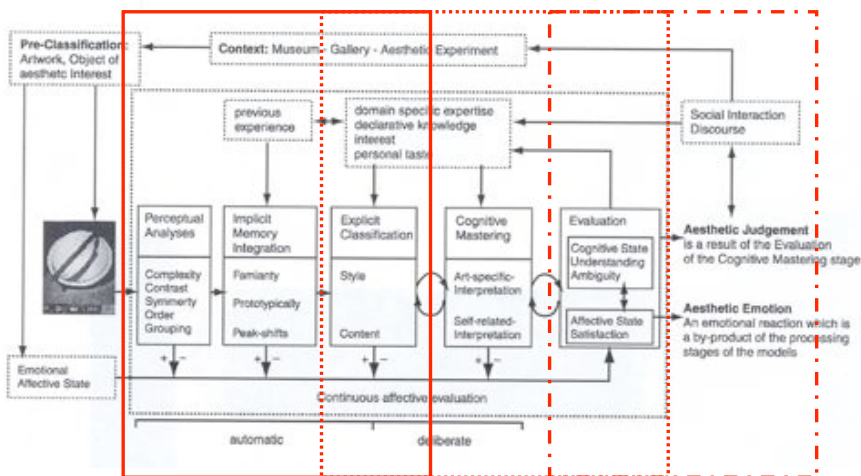


emotion



aesthetics/aesthetic (*aisthesis*) =
 sensory perception & understanding >
 gratification of the senses (incl. smell, hear, touch, etc.) >
 visual beauty (beautiful/ugly)

Leder et al [2004]



aesthetic
response

(aesthetic)
understanding

(aesthetic)
emotions

*disinterested
pleasure*

*attribution of
meaning*

*addressing
concerns*

aesthetic is ...

not restricted to art
or artistic expressions

aesthetic is ...

not limited to the
visual domain

aesthetic is ...

not a matter of styling
(only)

aesthetic is ...

not an aspect or
property of something

aesthetic pleasure is ...
not an emotion

“What is beneficial is (aesthetically) pleasant”

“In the study of humans, there are major spheres of human experience – *beauty*, motherhood, kinship, morality, cooperation, sexuality, violence – in which evolutionary psychology provides the only coherent theory”

Pinker, 2002

preferred features of human face/body

males > females

reproduction: health [glorious mane of hair, clear skin, symmetry] and fertility [youth, waist-to-hip ratio]

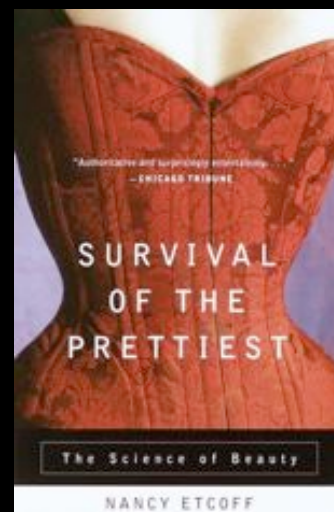
females > males

competition & protection:

vigor [robust health, clear skin, strong muscles]

evidence:

1. high inter-rater reliability
2. cross-cultural consistency
3. infants > 4 months prefer attractive faces!
4. even animals ...



'transfer hypothesis'

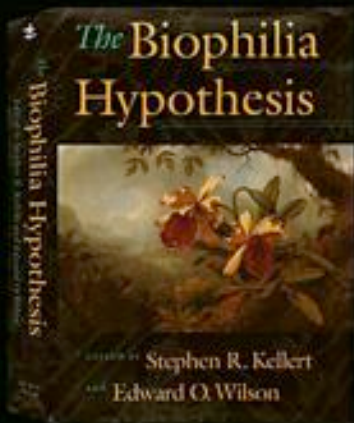


preferred patterns in landscapes

food: open grassland with water, vegetation, and animals [biophilia]

safety: protected, panoramic views

easy exploration: landmarks, boundaries and paths



“In the world of artifacts, aesthetic preferences have the same function that they have always had in a world of natural features, namely as aids to orientation for decisions in sexual and social affairs.”

Voland, 2003

'by-product hypothesis'

"beauty exists in the adaptations of the beholder"

Symons, 1995

- adaptations have evolved to serve functions beneficial to our survival
- what contributes to these functions must be reinforced
- we [have come to] derive [aesthetic] pleasure from patterns or features that facilitate these functions

"it is brains that have evolved to generate pleasant and unpleasant feelings to those aspects of the environment that were a consistent benefit or threat to gene survival in ancestral environments"

Johnston, 2003

principles (may) differ from domain to domain:
from sense to sense

adaptive functions of the senses

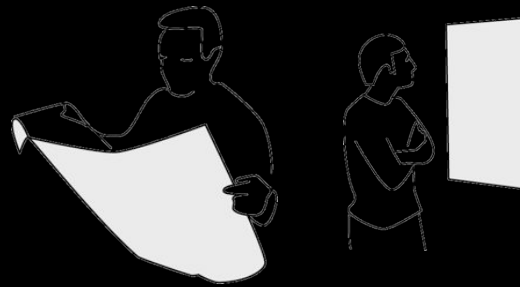
vision navigation & identification
we like to look at things that afford ...

sound signalling & communication
we like to hear things that afford ...

touch self-awareness, information & control, pain
[& proprioception] & pleasure (sex)
we like to feel things that afford ...

smell/taste gatekeepers of the body: identify what the
body needs and detect what is bad

thought "we perceive our thoughts with our mind
just as we perceive a visible object with
our eye"
Varela et al [1993]

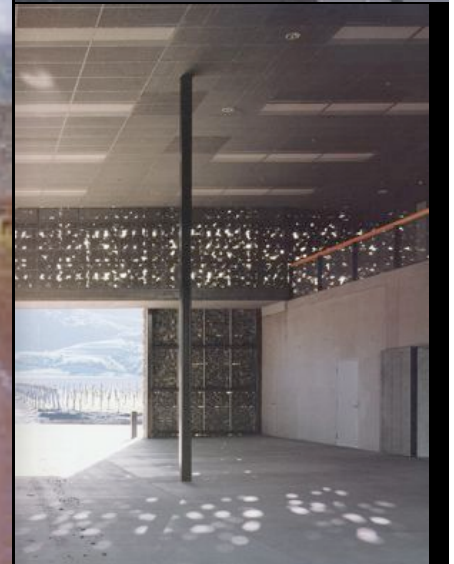
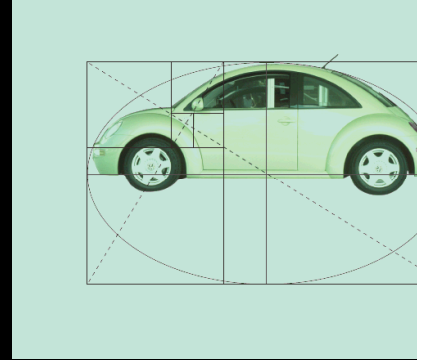
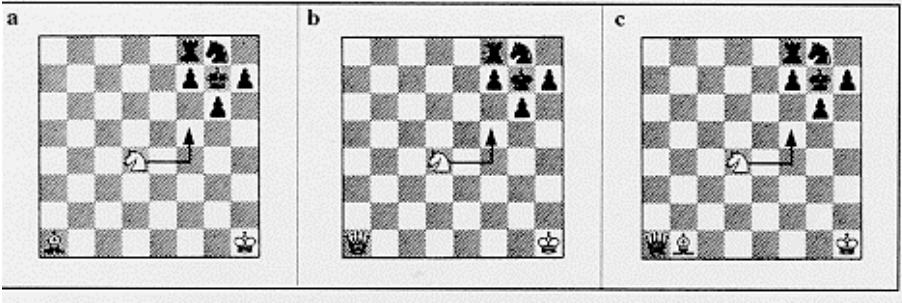


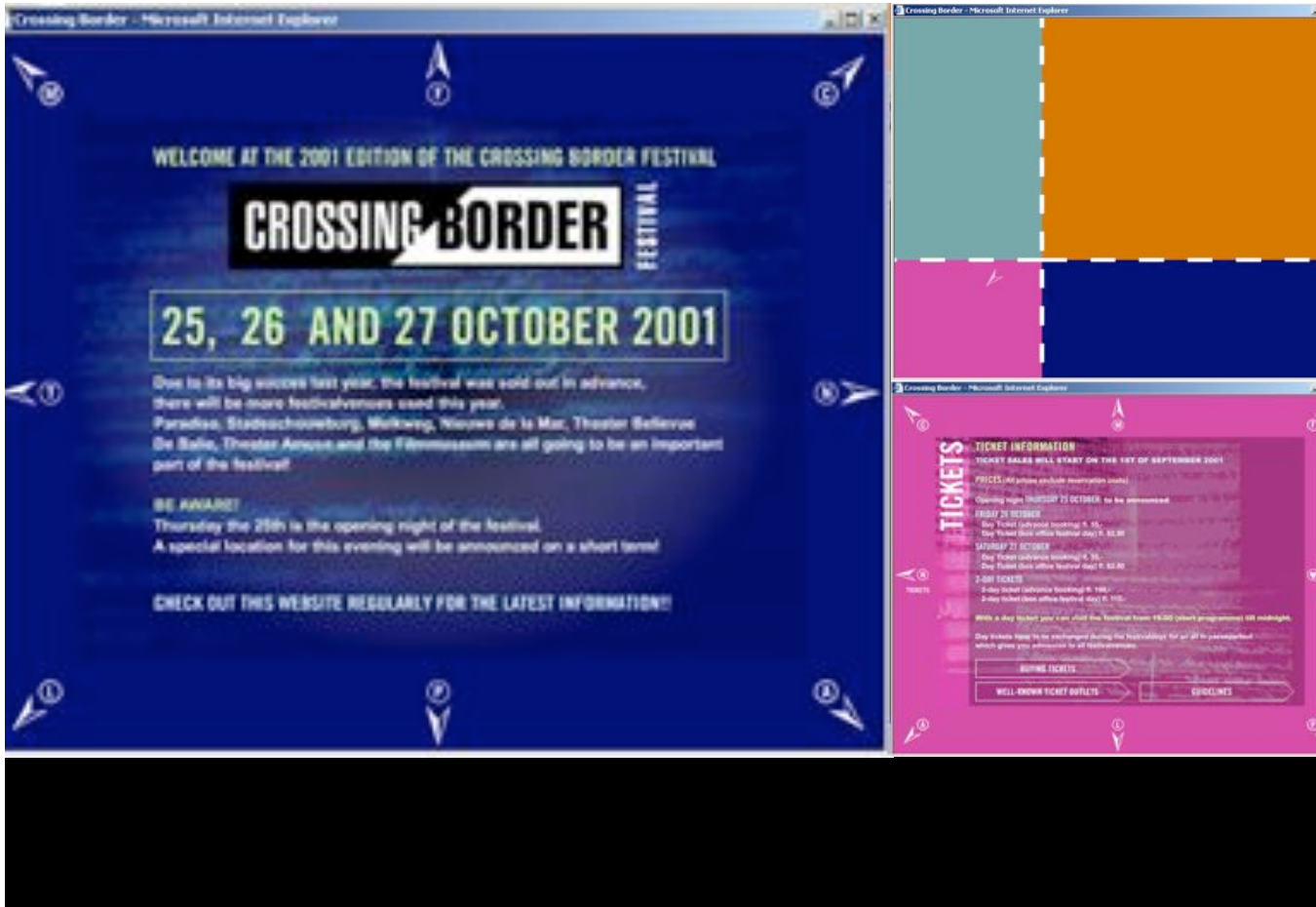
maximum effect for minimum means

means: effort, resources, brain capacity

effect: survival, reproduction, learning

applies to thought, theory, idea, concept,
formula, solution, ...





[cross-modal?] principles of pleasure

unity in variety

detecting connections/relationships
 order within chaos, unmask arbitrariness
 'universal' properties of objects
 depends on *sensitivity*

most advanced, yet acceptable [MAYA]

advanced = novel, original > learning
 acceptable = familiar, typical > safety
 depends on *individual* (previous) experience

congruency

ease of identification
 depends on *context*: product design is multi-modal!

unity in variety

relevant for navigation, identification & signalling

applies to visual art, music, meals, and ...



gestalt laws **similarity/proximity**

contrast

metaphor

isolation

peak shift

solving puzzles

conjunctive ambiguity



gestalt laws **closure**

contrast

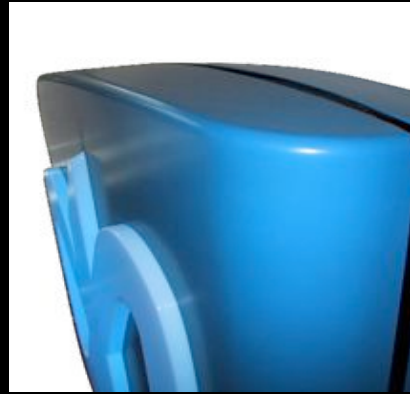
metaphor

isolation

peak shift

solving puzzles

conjunctive ambiguity



gestalt laws **continuity**

contrast

metaphor

isolation

peak shift

solving puzzles

conjunctive ambiguity



gestalt laws prägnanz

contrast

metaphor

isolation

peak shift

solving puzzles

conjunctive ambiguity



gestalt laws

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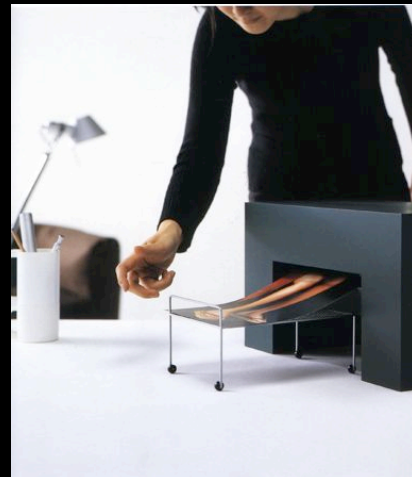
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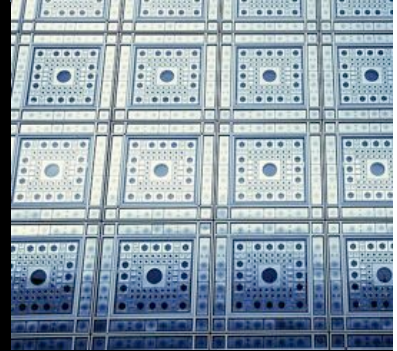
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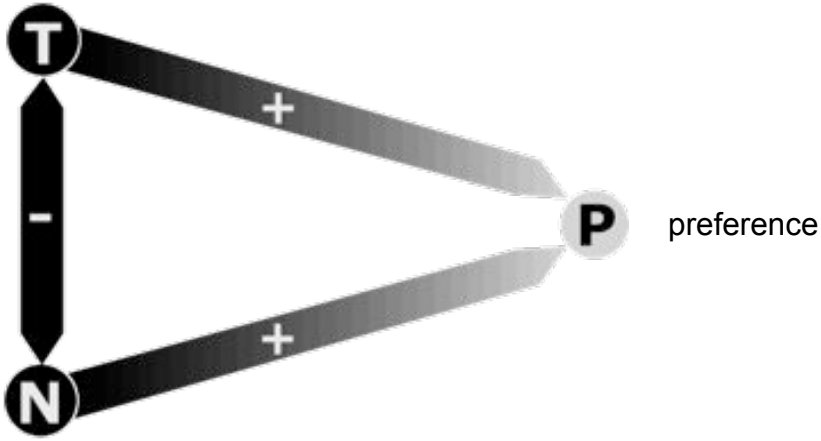
conjunctive ambiguity



most advanced, yet acceptable [MAYA]

advanced = novel, original
acceptable = familiar, typical

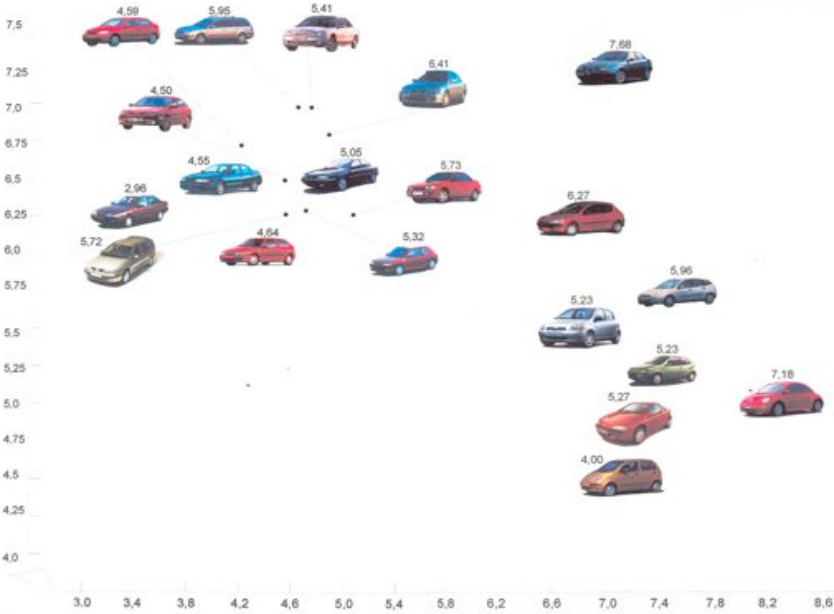
typicality



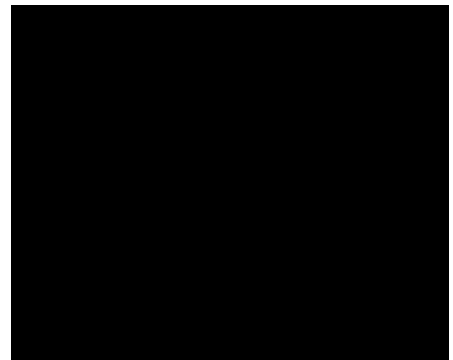
novelty



typicality



novelty



congruency/appropriateness:

“an elevated identification accuracy”

Zellner et al [1991]

Form follows Function

also for Sound, Touch and Smell:
are they congruent with or appropriate for the product?

- theme/association
- affect
- arousal



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