

Ann Arbor, U.S.A

Cultural Differences in Aesthetic Preferences: Does Product-to-Context Match Matter?

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The Power of Beauty: Product Design



"How can designer increase the appeal of a design?"

Seeking for "**Attractive, Pleasing, Appealing**"

"Beautiful products work better" (Norman, 2004)

Beauty → Positive mood → Creative thinking & problem solving → **Task performance**

It is highly related to people & context

What is beauty ?

This question has been debated for at least 2,500 years ,and has been given a wide variety of answers (Feagin, 1995; Tatarkiewicz, 1970)

Beautiful
face ?



Appealing
painting ?



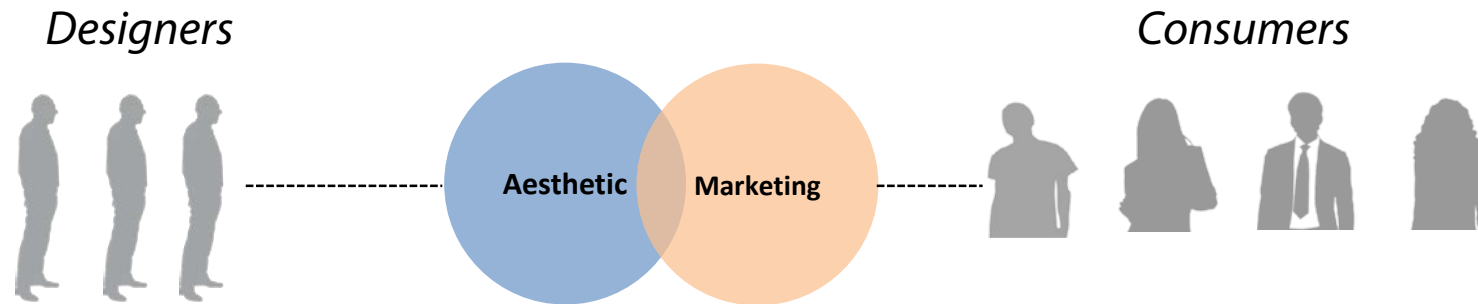
Pleasing design ?



Charming
scenery ?

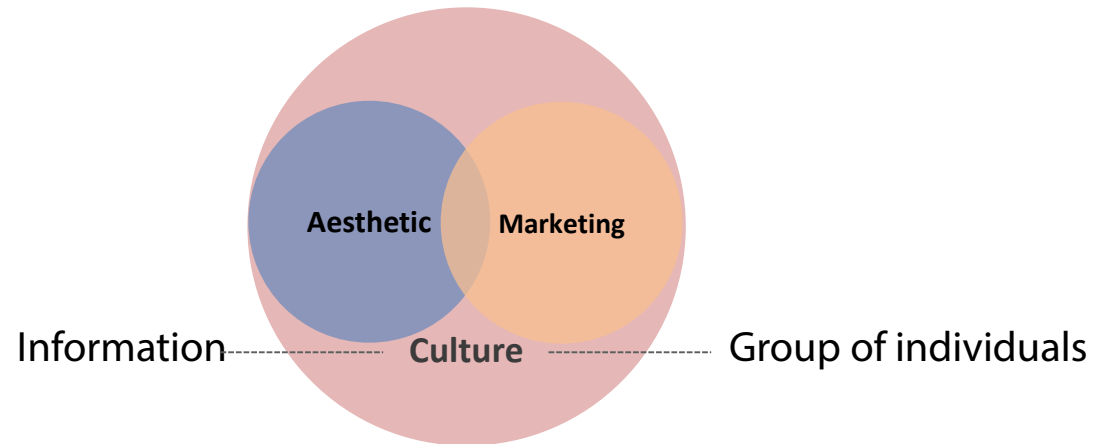


Why Beauty Matters?



Product Design is *economic driven*, seeking for *niche of marketing*, and *satisfying* *consumers*
(Postrel, 2003; Creusen & Shoormans, 2005)

WHY CULTURE?

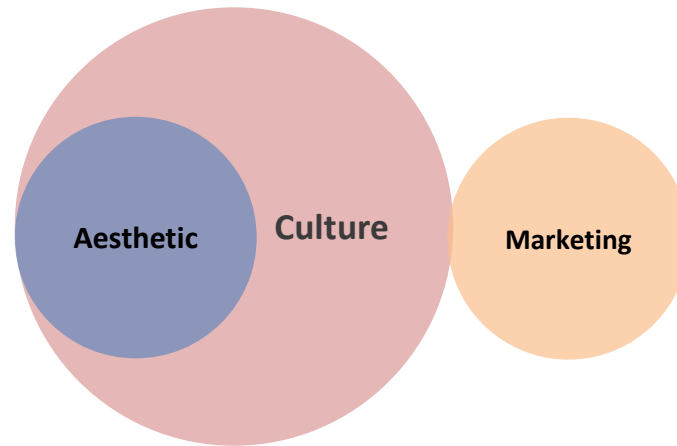


Culture : Information & Group of individuals (Heine 2012)

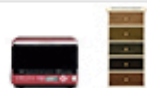
Culture is kind of **idea, belief, technology, habit, or practice** that is acquired through leaning from others.

People differ : *the things they perceive, previous experiences, background variables*

Aesthetic Choices & Culture



Empirically, **taste** is predominantly shaped by the **culture** to which we belong.



春のSALE

対象商品9万点以上

[今すぐチェック](#)[「Humidifier」の検索結果に戻る](#)

画像にマウスを合わせると拡大されます

超音波アロマ加湿器 細かいうるおいミスト【ティンクル】(ホワイト) 抜群の加湿力120ml/h 丁度良い容量1.1L

エンジョイホーム

★★★★☆ 133件のカスタマーレビュー

セール品: ¥ 2,380

Examples in Marketplace of cultural differences

在庫あり。在庫状況について

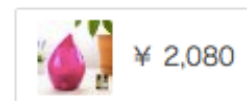
住所からお届け予定日を確認 **153-0064 - 東京都目黒区下目黒** [詳細](#)

お届け予定日: 4/12~16 通常配送を利用した場合のお届け予定日です。

この商品は、システムK が販売、発送します。返品については出品者のリンクからご確認ください。この出品商品には代金引換とコンビニ・ATM・ネットバンキング・電子マネー払いが利用できます。

新品の出品: 3¥ 2,380より

色: ホワイト



- かわいいデザインで抜群の加湿力!! スイッチを押すとLEDブルーライトが点灯。アロマトレイ搭載でアロマディフューザーとしてもお使いいただけますので、お部屋のインテリアとしても大活躍♪
- サイズ: 幅15cm 奥行き15cm 高さ22cm
- 材質: ABS樹脂、PP 重量: 600g
- 生産地: 輸入品 備考: ※完成品です。 加湿方式: 超音波振動加湿方式 水タンク容量: 約1.1L 材

◀ Back to search results for "humidifier"



Roll over image to zoom in

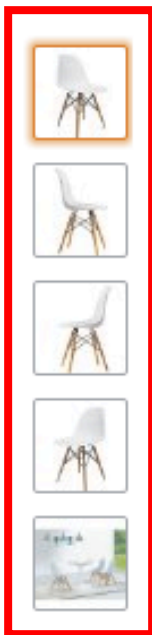
◀ 「Humidifier」の検索結果に戻る



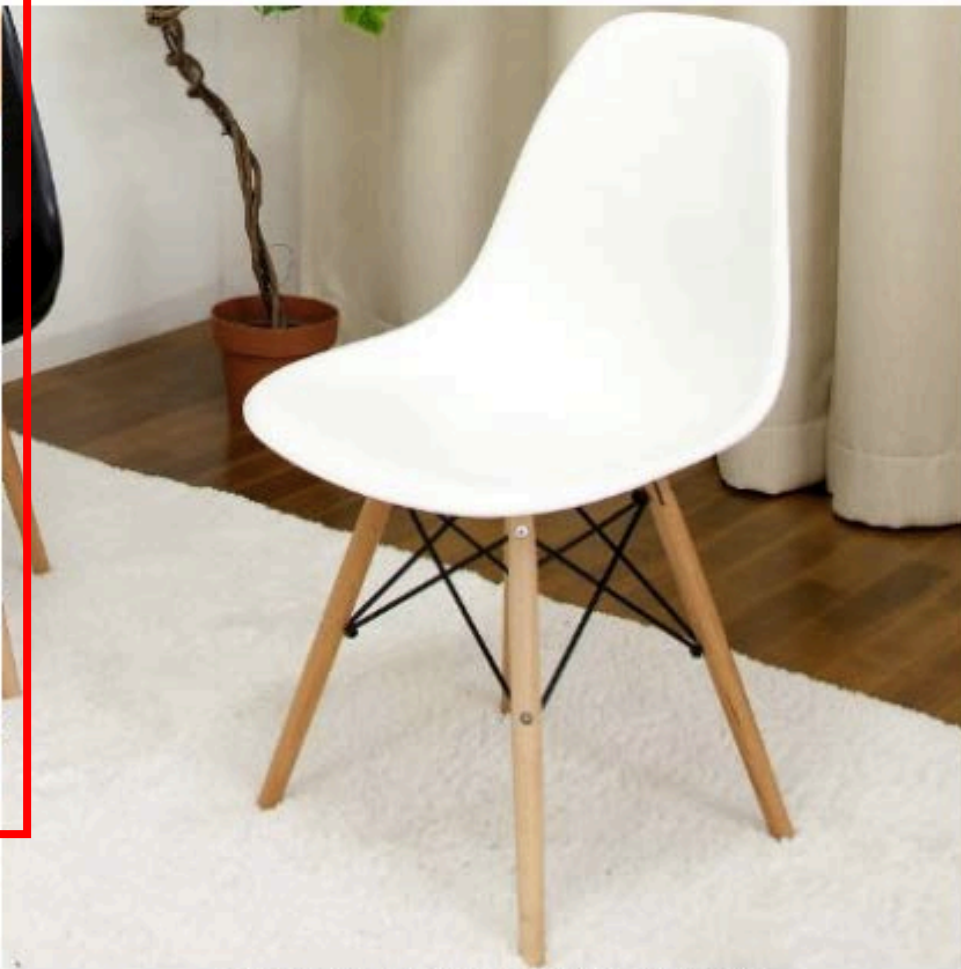
画像にマウスを合わせると拡大されます



Back to search results for "Eames chair"



Roll over image to zoom in



画像にマウスを合わせると拡大されます

Research Question:

Do these apparent *differences within culture* reflect *aesthetic preferences*?



Aesthetic Value & Culture

- Aesthetics
- Product Aesthetics Experience

What is Aesthetics?

It rooted in the Greek word *aisthesis*,
that can be translated as understanding through sensory perception or sensuous knowledge

More pprecisely, it refers to sensory pleasure and delight (Goldman, 2001)

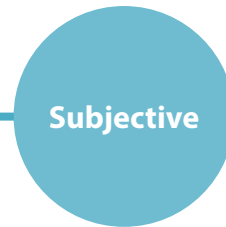
Aesthetics could be physical attractiveness (mainly visual mediated) of the product (Hekkert, 2006)

Prospective of Beauty

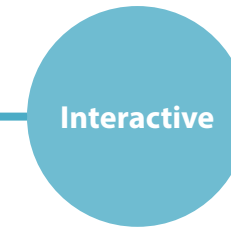
OBJECTIVE VIEW



SUBJECTIVE VIEW



INTERACTIVE VIEW



Plato, saw **beauty as a property of an object** that produces a pleasurable experience in any suitable perceiver (Tatarkiewicz, 1970)

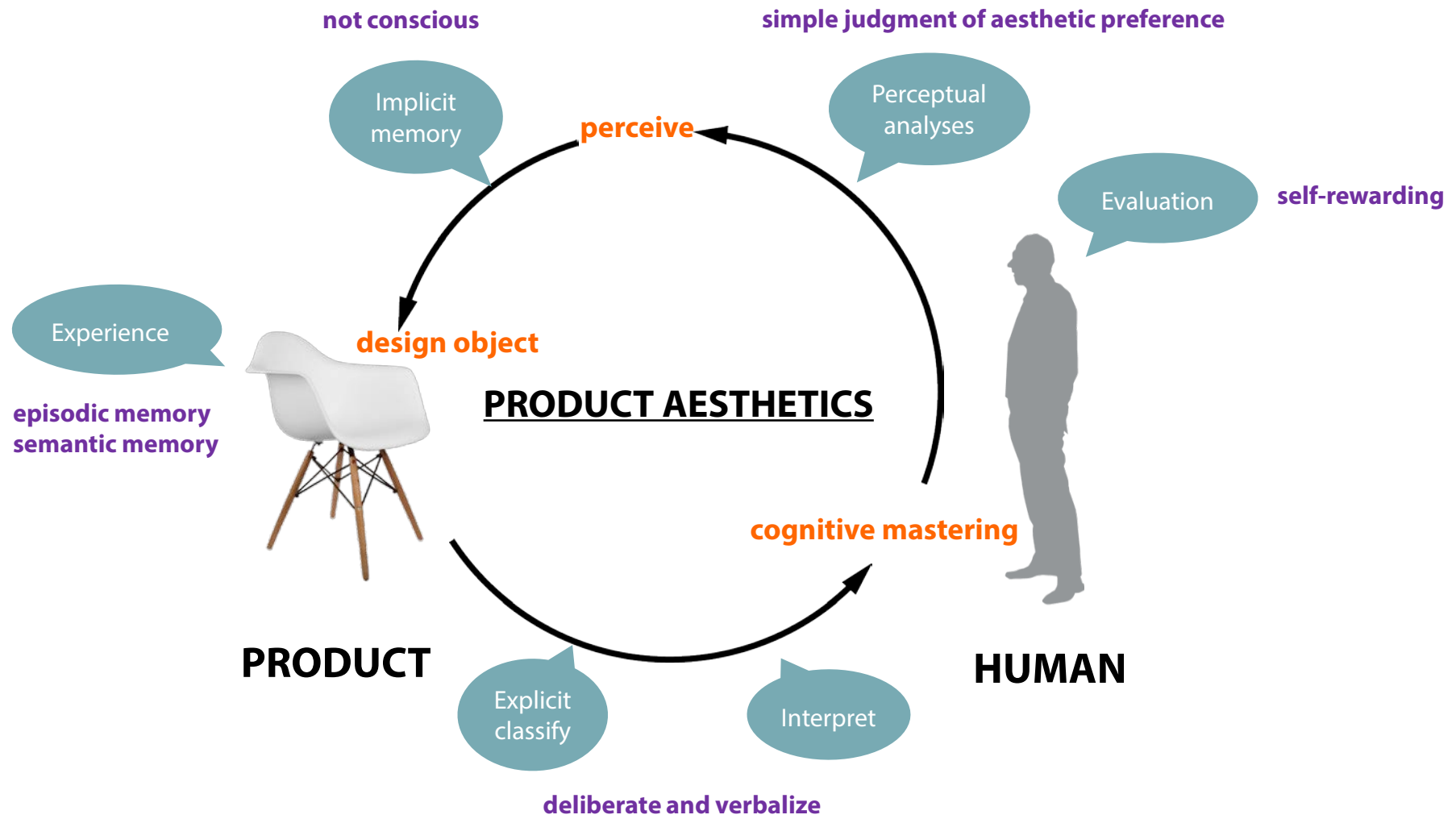
Balance & proportion (Arnheim, 1974; Birko ff, 1933), **symmetry** (Arnheim, 1974), **informational content and complexity** (Berlyne, 1971), and **contrast and clarity** (Gombrich, 1984)

Sophist, proposed that **anything could be beautiful if it pleases the sense** (Tatarkiewicz, 1970)

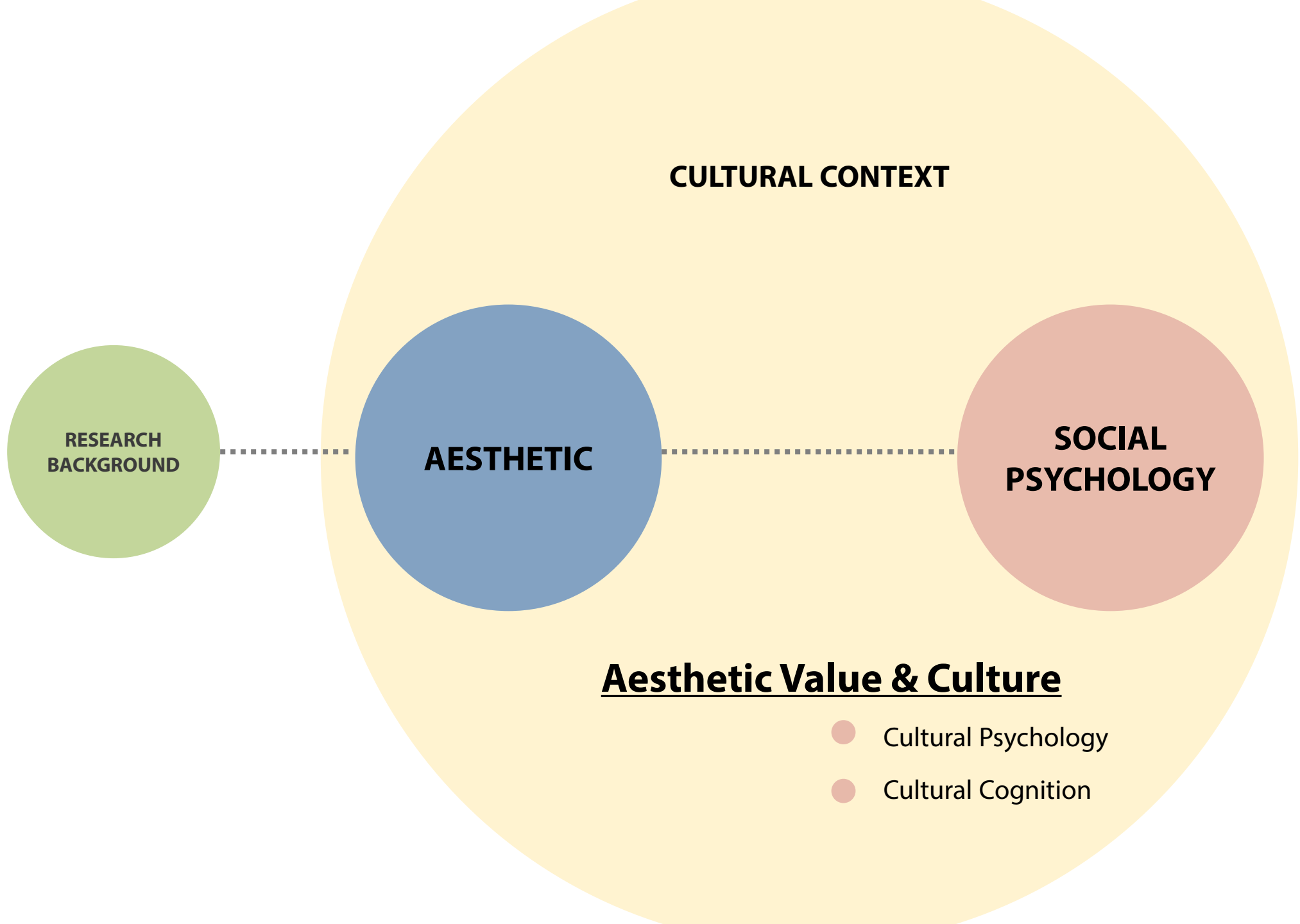
"Beauty is in the eye of the beholder" or "Taste cannot be debated" (Kubovy, 2000)

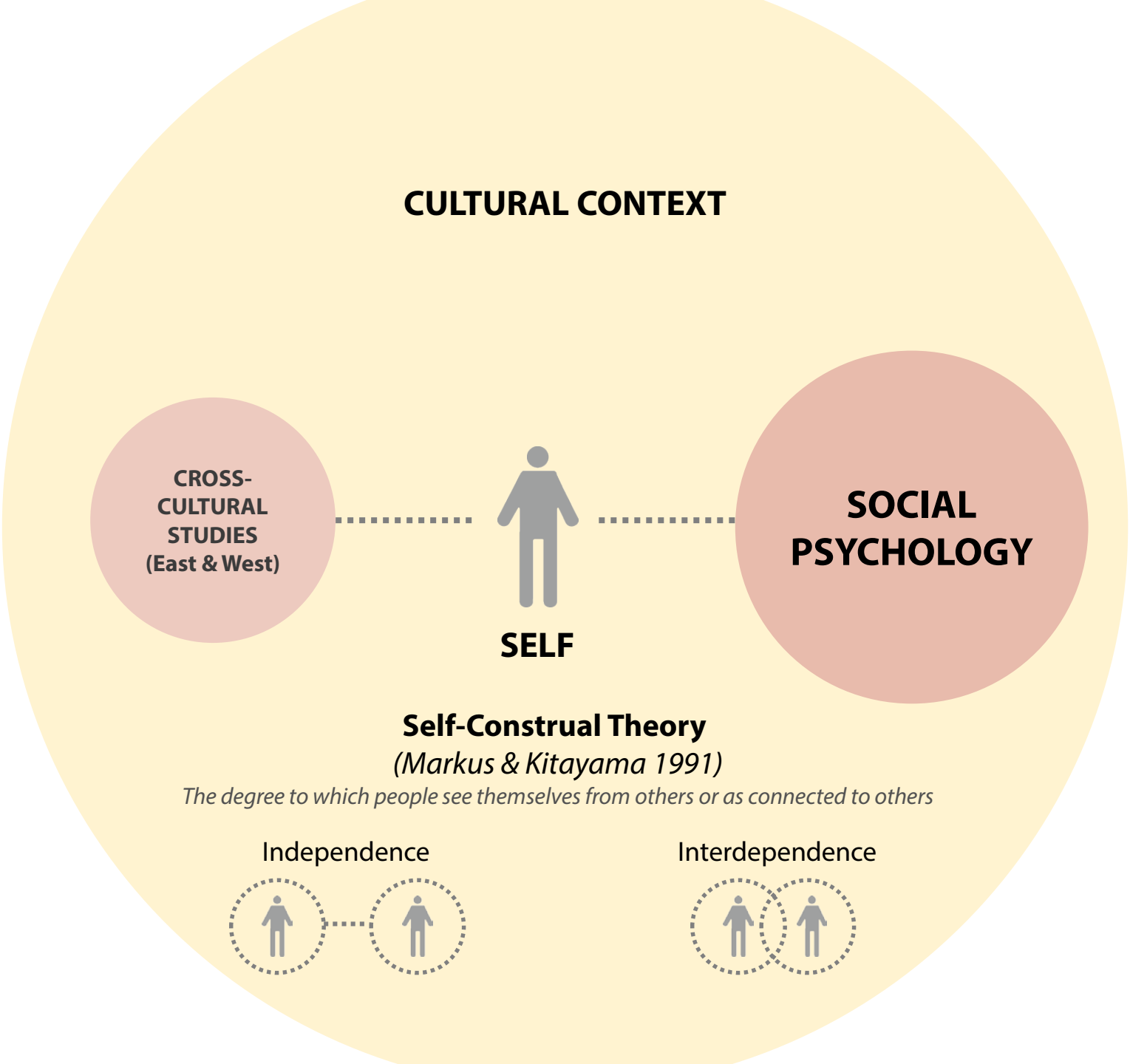
Philosophers, suggested **a sense of beauty emerges from patterns in the way people and object relate** (Ingarden, 1985)

Beauty is value positive, intrinsic, and objectified (Santayana, 1896/1955)



Adapt the model of aesthetic experience (Leder, Belke, Oeberst, & Augustin, 2004)





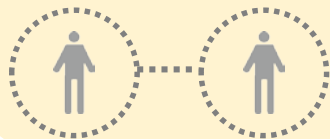
SELF



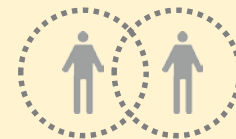
Self-Construal Theory
(Markus & Kitayama 1991)

The degree to which people see themselves from others or as connected to others

Independence

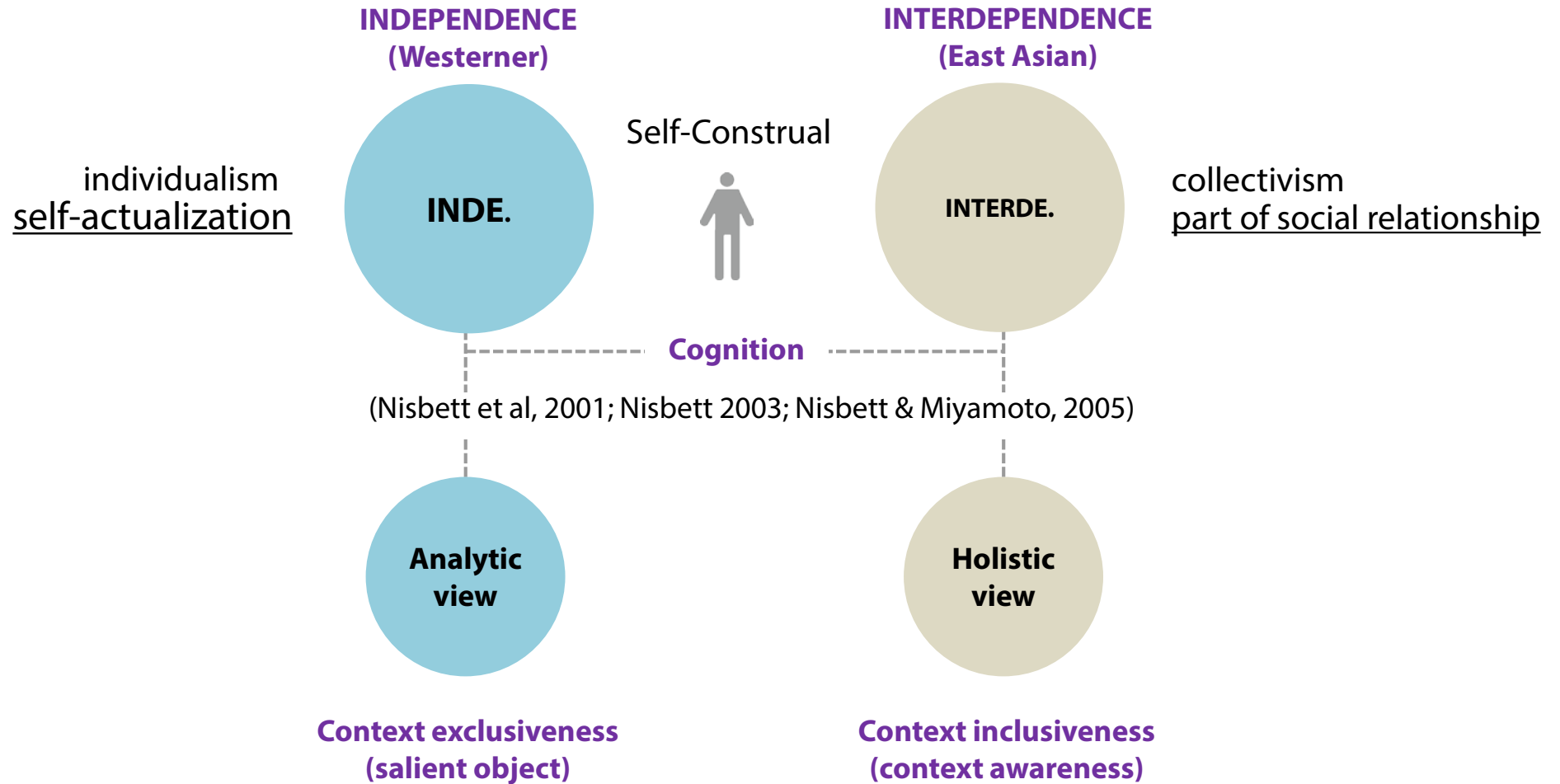


Interdependence

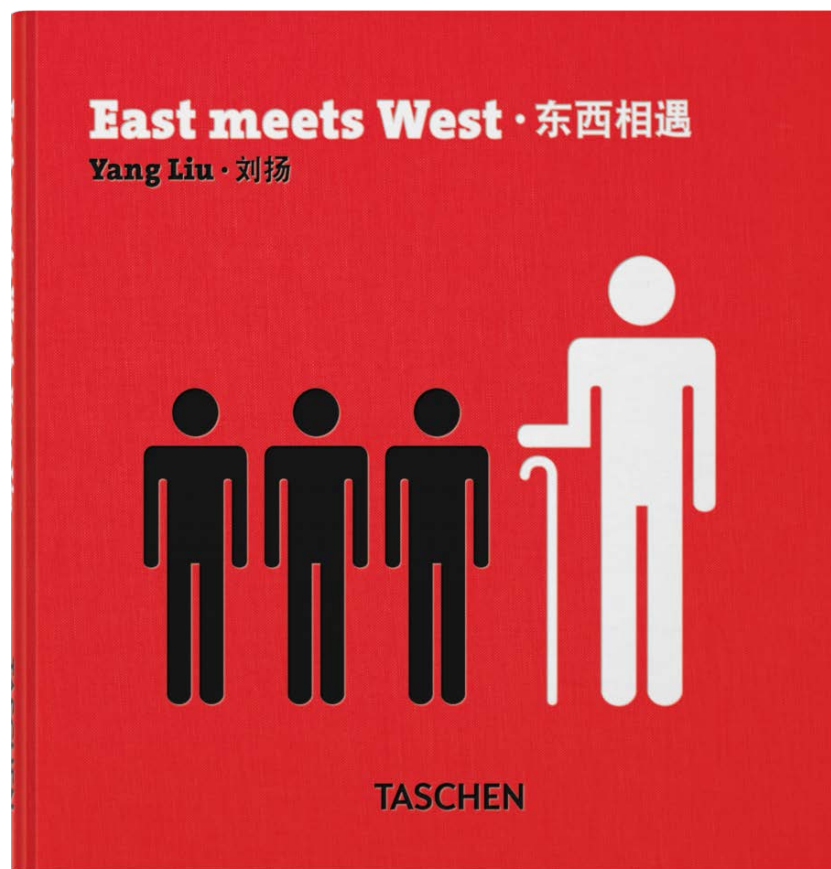


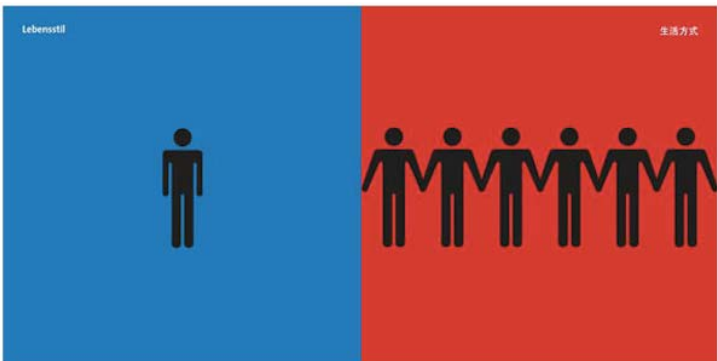
Cognition of Cultural Psychology

(Markus & Kitayama 1991; Triandis, 1995)

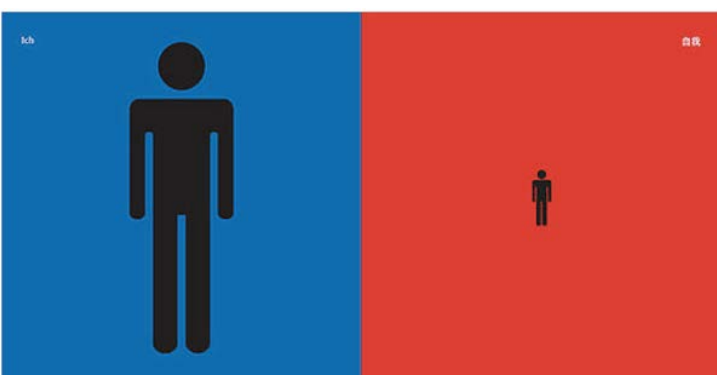


East meets West (Yang Liu 2013)

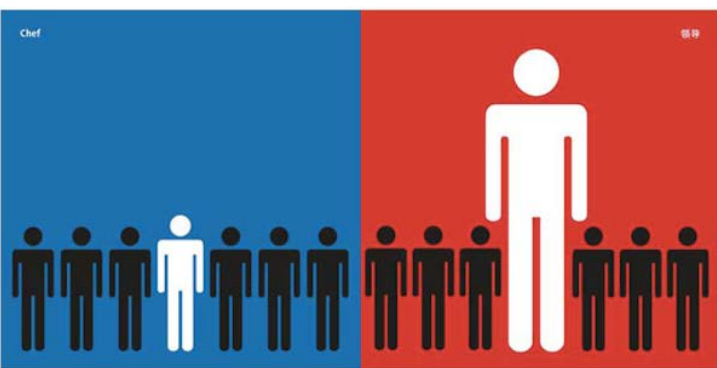




Lifestyle: Independent vs. dependent

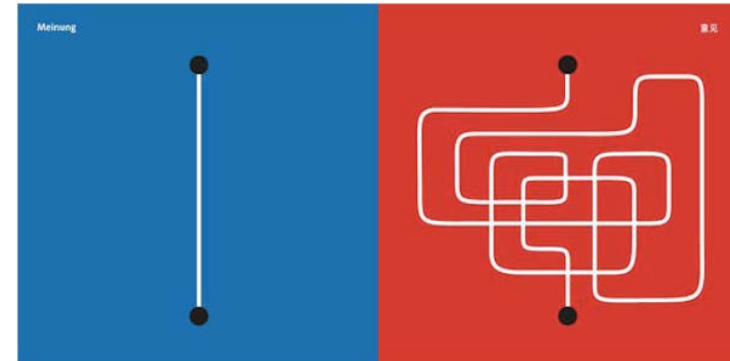
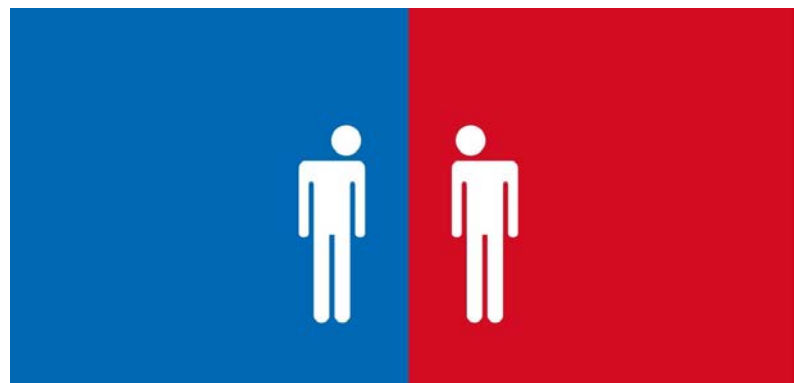


Size of the individual's ego

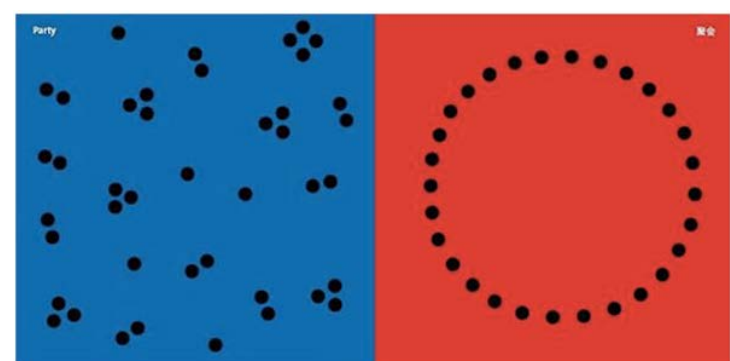


The boss

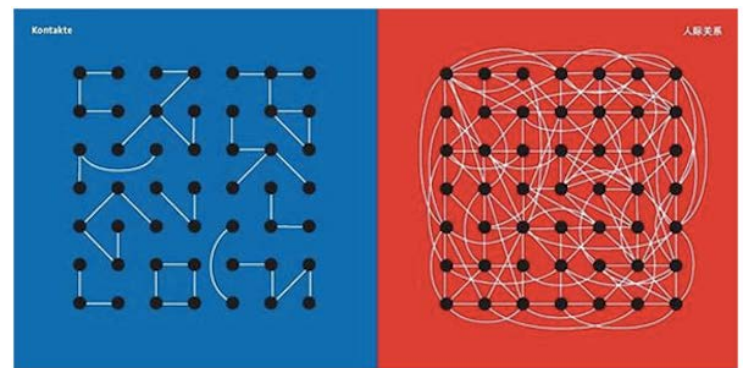
West East



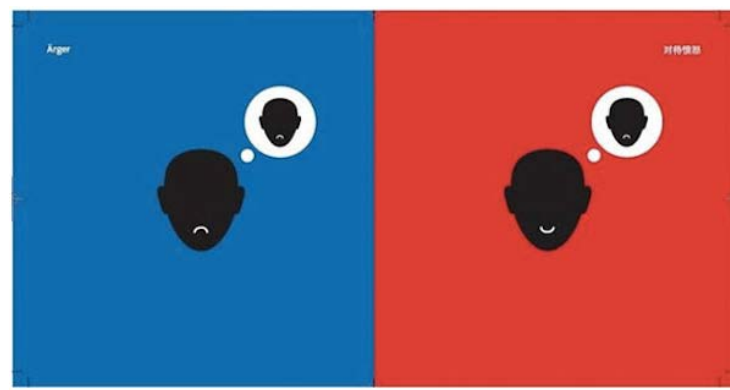
Complexity of self-expression



At a party



Connections and contacts



Emotion expression

Aesthetic preference & Cultural Cognition

(Masuda, Gonzalez, Kwan, & Nisbett 2008)



Westerner



- Object-oriented attention
- Categorization

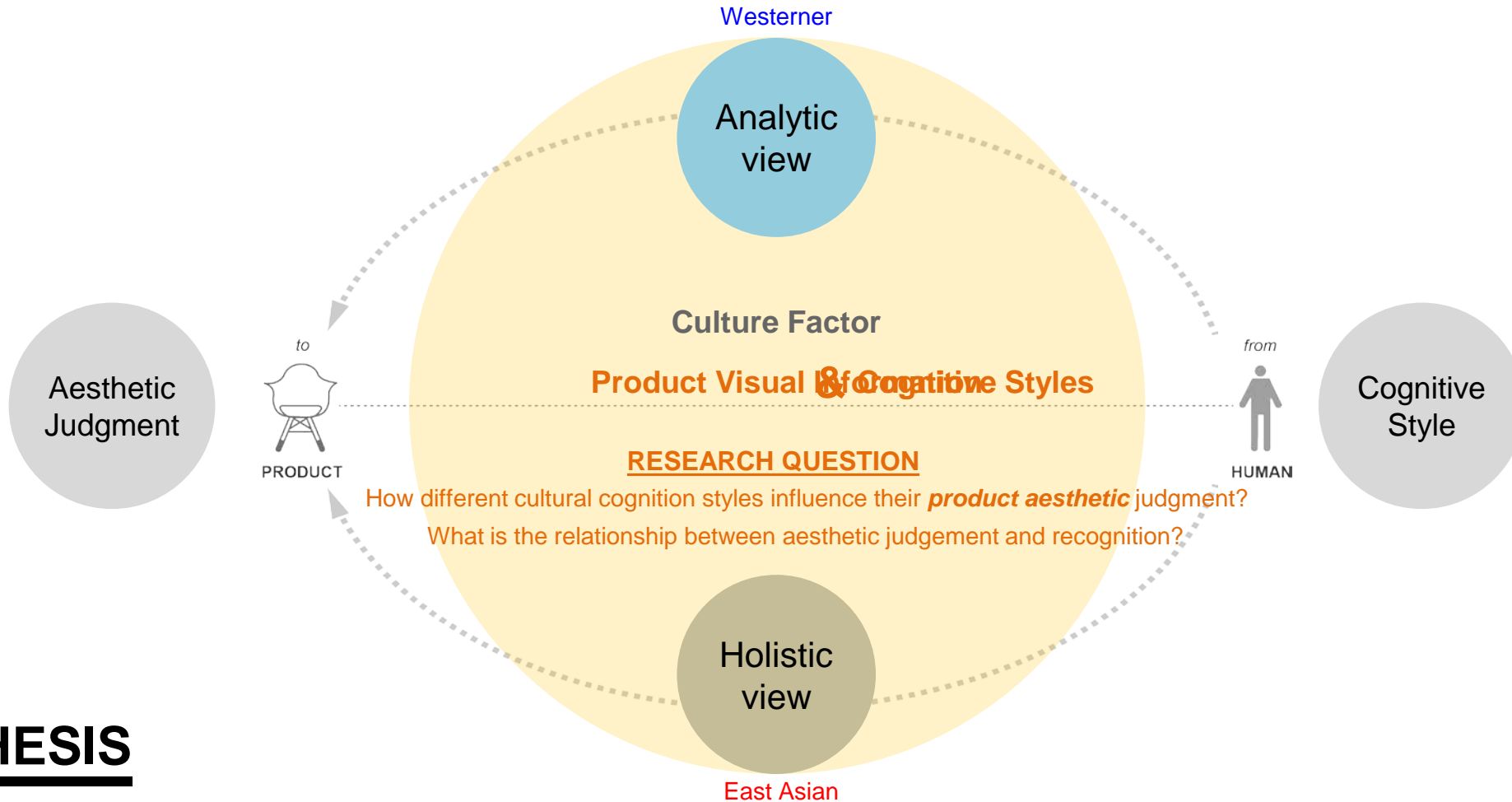
East Asian



- Context-sensitive attention
- Relationship



Research Framework



HYPOTHESIS

H1 : Product Aesthetic Judgment:

- Westerners prefer the product visual information by decontextualized liking (analytic view).
- East Asians prefer the product visual information by holistic liking (holistic view).

Pre-test

To make sure the stimuli are equally beautiful

A1



A1'



A6



A6'



A2



A2'



A7



A7'



A3



A3'



A8



A8'



A4



A4'



A9



A9'



A5



A5'



Product stimuli: 27→9
Subjects=180 (90 EU / 90 EA)
Product type (A): Chair

Pre-test

To make sure the stimuli are equally beautiful

B1



B1'



B6



B6'



B2



B2'



B7'



B7'



B3



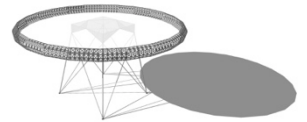
B3'



B8



B8'



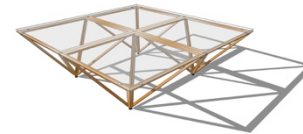
B4



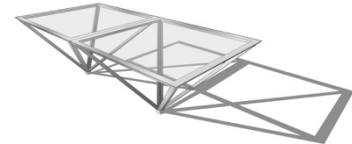
B4'



B9



B9'



B5



B5'



Product stimuli: 27→9
Subjects=180 (90 EU / 90 EA)
Product type (B): Coffee Table

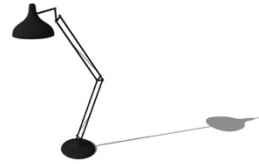
Pre-test

To make sure the stimuli are equally beautiful

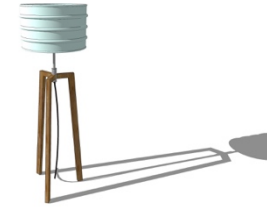
C1



C1'



C6



C6'



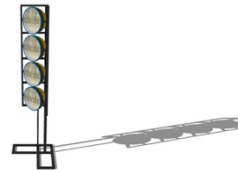
C2



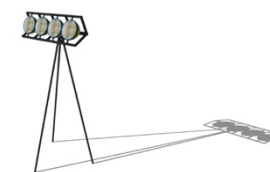
C2'



C7'



C7'



C3



C3'



C8



C8'



C4



C4'



C9



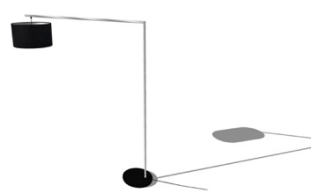
C9'



C5



C5'

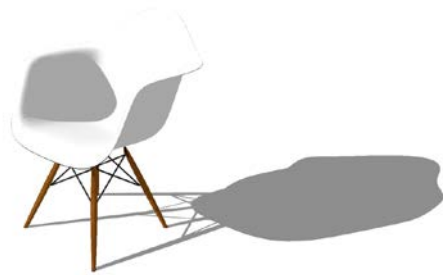


Product stimuli: 27→9
Subjects=180 (90 EU / 90 EA)
Product type (C): Floor Lamp

Research Methodology

Lab experimental design

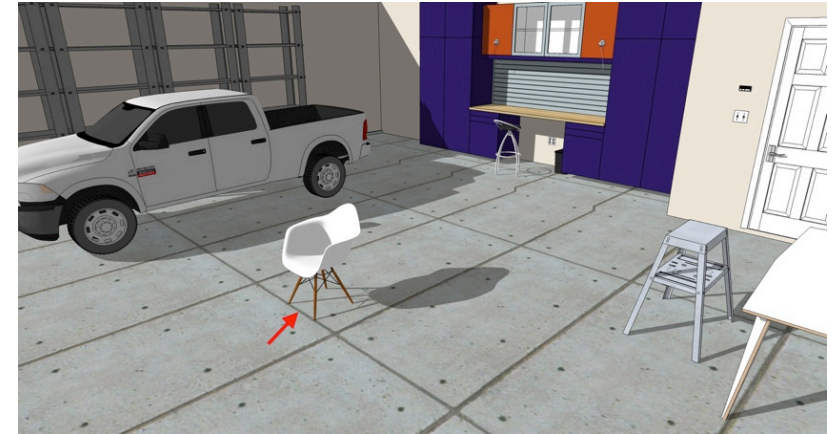
Manipulate the context information



Without context condition

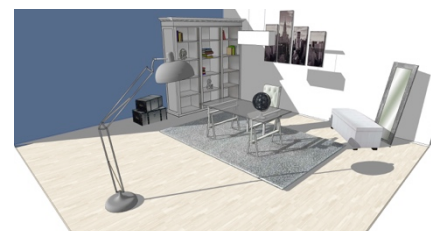
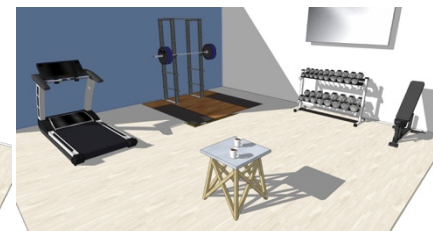


Matched context condition



Mismatched context condition

Please look at the picture and answer the question below for the product indicated by **red arrow**

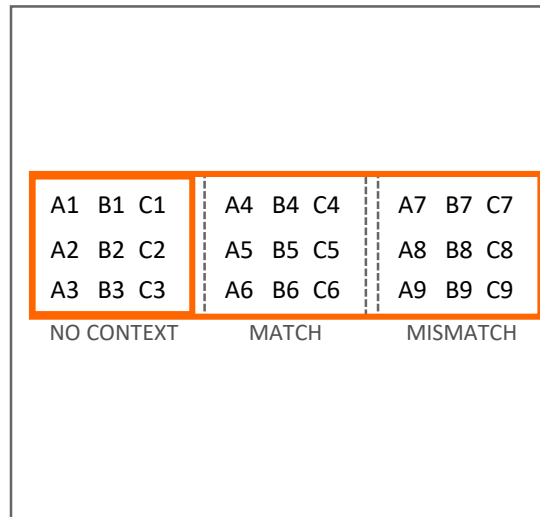


Total 81 stimuli
(No context / Match / Mismatch)

Latin Square Design

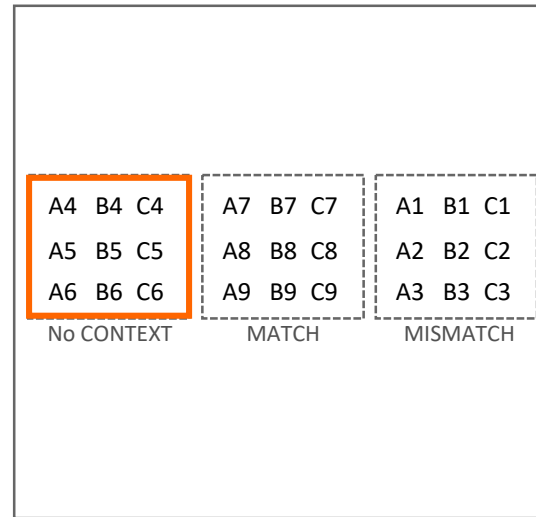
Count balance the product stimuli to reduce stereotype effect

SET X



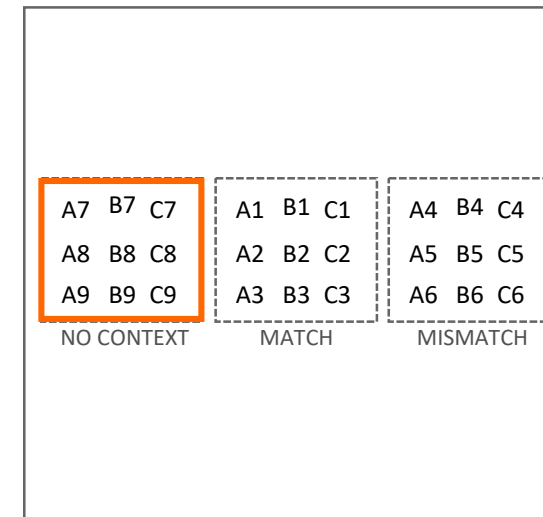
A : Chair B : Coffee Table C : Floor Lamp

SET Y



A : Chair B : Coffee Table C : Floor Lamp

SET Z



A : Chair B : Coffee Table C : Floor Lamp

Subjects are random assigned to one of those 3 sets.



Question Design (DV)



Dependent Variables

Decontextualize liking

(collapse 1. & 2. dependent variable)

- 1. Do you think the product is beautiful?
(Product beauty)
- 2. Do you like the product itself?
(Product liking)

Holistic liking

(collapse 3. & 4. & 5 dependent variable)

- 3. How well do you think the product fits into this context?
(Product & Context fitting: manipulation check)
- 4. Do you like the product in this context?
(Product & Context liking)
- 5. Overall, do you like the whole picture?
(Overall picture liking)

Demographic



European American

- Caucasian, born and live in USA (parents are both white)
- Age: from 18 to 30
- Resource: ROSS student pool

N=171



East Asian

- East Asian, most born and live in Taiwan (few from China, Japan, and Korean)
- Age: from 18 to 40
- Resource: Intro psycho subject pool & online survey distributed at TW

N=107

Data Analysis



Study Phase

Compare culture & condition

dv : aesthetic response

3 X 2 Mixed ANOVA design

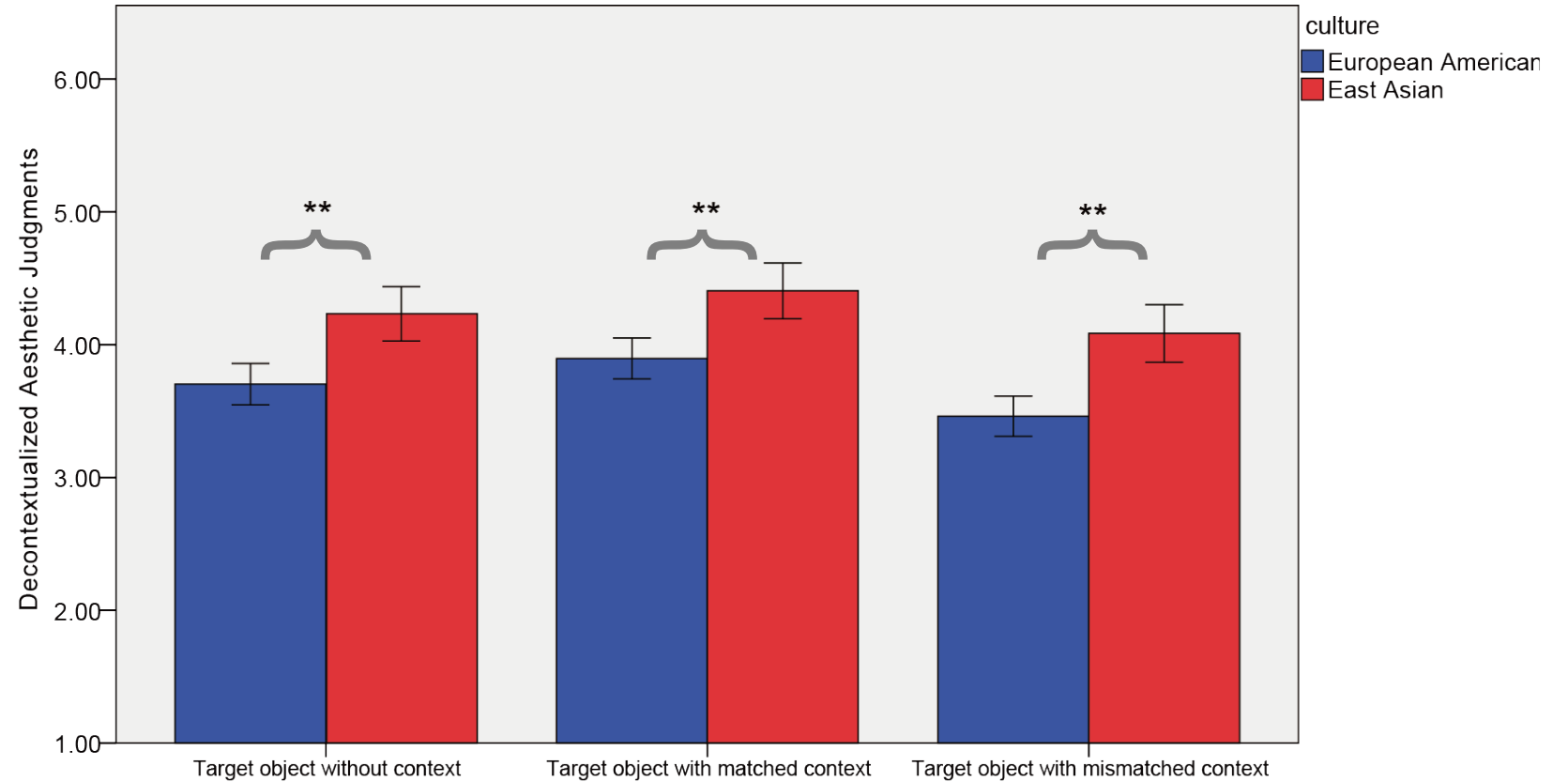
Within-subject factor: three experimental conditions (No context / match / mismatch)

Between-subject factor: the characteristic of sample (culture group)

Decontextualize liking

- *Product beauty*
- *Product liking*

MAIN EFFECT OF CULTURE: $F(1, 276) = 21.400, P < .001$
MAIN EFFECT OF CONDITION: $F(2, 522) = 38.938, P < .001$
NO INTERACTION EFFECT: $F(2, 522) = 1.378, P = .240$



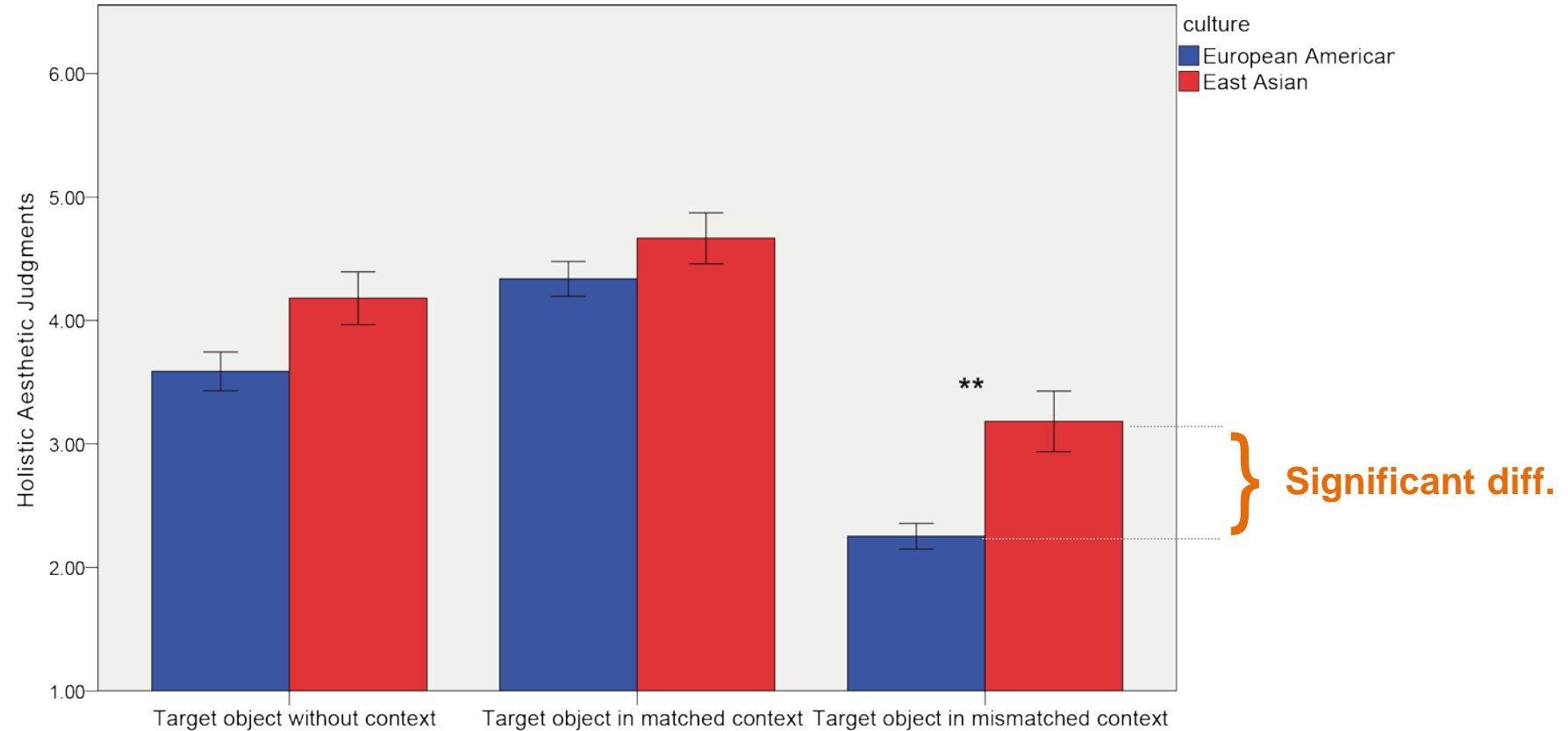
Note: Decontextualized Aesthetic Judgments are collapsed by "Product Beauty" and "Product Liking" two attributes
** indicated significantly greater between East Asians and European Americans at $p < .001$



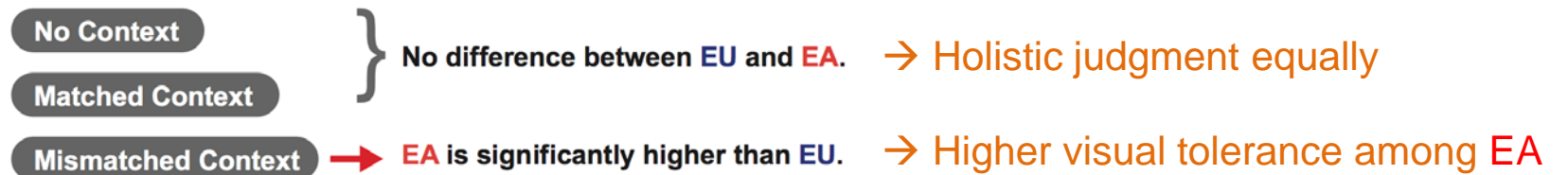
Holistic liking

- *Product & Context fitting*
- *Product & Context liking*
- *Overall liking*

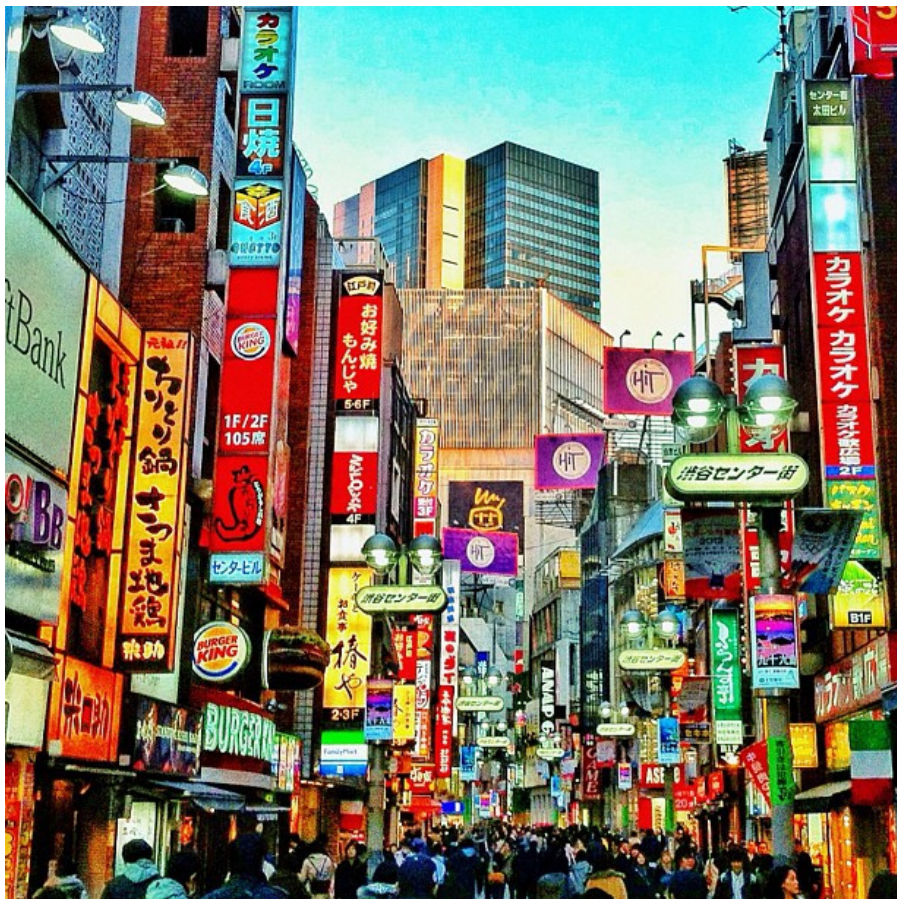
MAIN EFFECT OF CULTURE: $F(1, 276) = 35.750, P < .001$
MAIN EFFECT OF CONDITION: $F(2, 522) = 455.081, P < .001$
AN INTERACTION EFFECT: $F(2, 522) = 12.640, P < .001$



Note: Holistic Aesthetic Judgments are collapsed by "Product in Context Fit", "Product in Context Liking", and "Overall liking" three attributes.
** indicated significantly greater between East Asians and European American at $p < .001$



Discussion



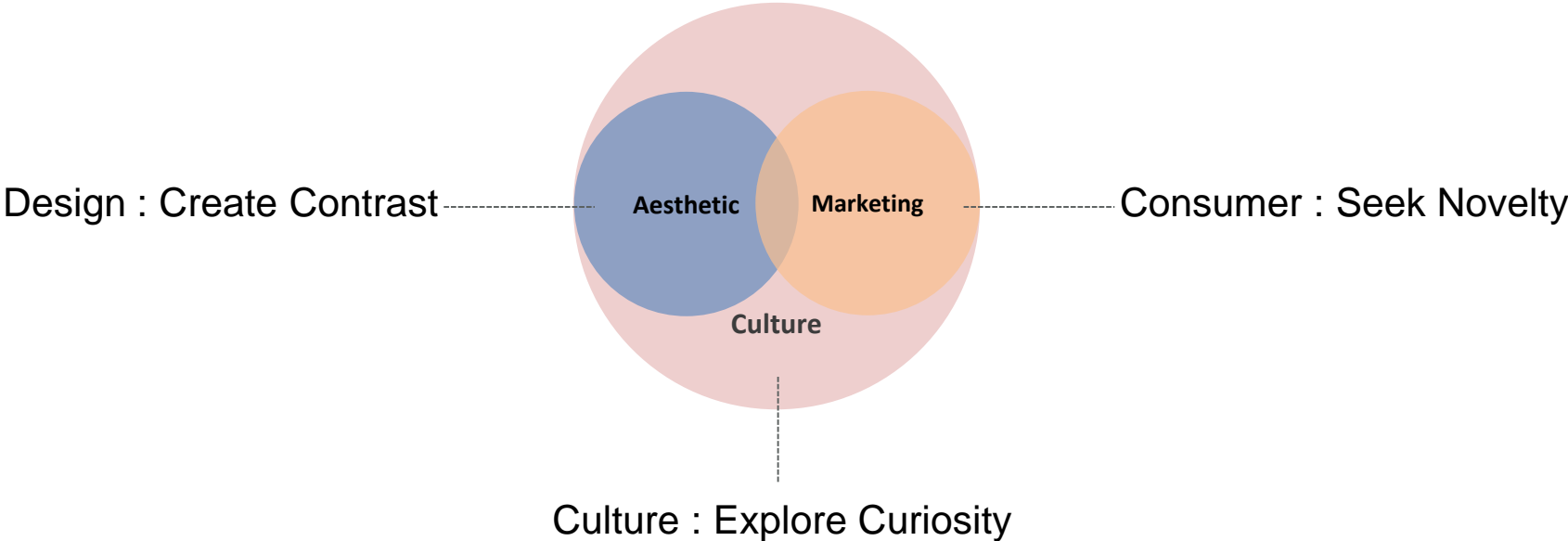
Interpretation :
 Visual affordance was highly influenced by cultural environment they engaged → perceptual habit → aesthetic preference
 Ex: street scene with messy signboards in Asian countries or chaotic website information.



Interpretation :
 European American → analytic view
 East Asian → holistic view

Discussion

WHY MISMATCH ?



Application & Contribution

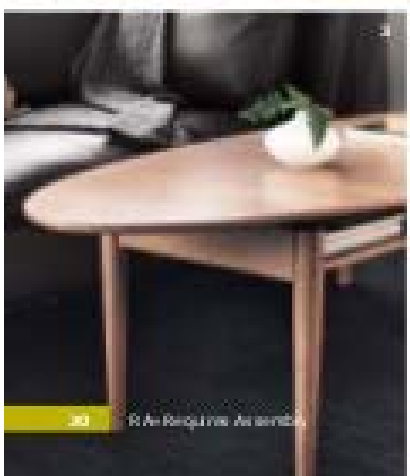
Advertisements, product catalogs, and online shopping



IKKA STOCKHOLM sofa
\$1499



IKKA STOCKHOLM has a 25-year limited warranty. Find out more on p. 256.



- THIS PAGE:
- IKKA STOCKHOLM sofa \$1499**
Durable through-grain leather, solid oak legs. PA, 100% cotton upholstery, elegant dark brown. 101.0x83.0". **IKKA STOCKHOLM HANDBAG \$299** 100% wool surface, cotton lining. Handmade in Venezuela. Designer: Arne Jacobson. 19.5"x11.7". Black/17-white 901.000.04
 - KUULA table lamp \$49.99***
Powder-coated steel and glass. Designer: C. Håkan Johansson. PA, 21.6", H:27". Black 301.69790
 - IKKA STOCKHOLM coffee table \$199** Clear lacquered oak veneer and solid oak. Designer: Einar Johansson. PA, 100% cotton upholstery. 100.0x41.7". Solid oak 601.007.913
 - IKKA STOCKHOLM glass-topped coffee table \$299** Stained, clear lacquered oak veneer. Designer: Torbjörn Larsson. PA, 100% cotton upholstery. Solid oak 601.007.911



KUULA table lamp
\$49.99*



For more ideas, visit ikea.com. Try all products in our online and in-store catalogs. Make us your local IKEA store for details.



IKKA STOCKHOLM floor lamp
\$119*



Timeless & Simple

- IKKA STOCKHOLM floor lamp \$119*** It has both a general light and a reading light. The lamp can be switched on and off separately. Fabric-lined shade and 100% cotton. Designer: Einar Johansson. PA, shade 21.6", base 301.000.001
- IKKA TV/storage combination with 40" TV door \$499** No-frills. PA, Max load 130 lbs. Max TV screen TV size 42". 100% cotton upholstery. White 901.000.001
- IKKA STOCKHOLM side table \$99** Oak veneer, tempered glass, aluminum and steel. Designer: Eva Lija Löfdahl. PA, 20.0", H:24". Black 301.488.78
- IKKA STOCKHOLM COXOOL sofa \$1,299** 100% cotton cover. Feather filling, 27.6"x22.9". White/black 901.000.001. **IKKA STOCKHOLM COXOOL sofa \$1,299** 100% polypropylene cover. Polyester fiber filling, 19.5"x29". 901.000.001. **IKKA STOCKHOLM sofa \$1,299** Cotton cover with extra layer, 100% cotton cover. Feather filling, 27.6"x22.9". Black/white 901.000.001. **IKKA STOCKHOLM footstool \$179** Cotton leather with fur. 10.2"x20.0"x11.0". Dotted white/black 901.001.99



IKKA STOCKHOLM footstool
\$279



All but the shades are imported.

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comfort and support. The
thick seat cushions have a
core of cushioning pocket
springs inside.

02 New NÖCKEBY
loveseat with chaise

\$1099

NEW
Lowest
Price

05 GÄSER rug, high pile
Last year's price \$199

\$149

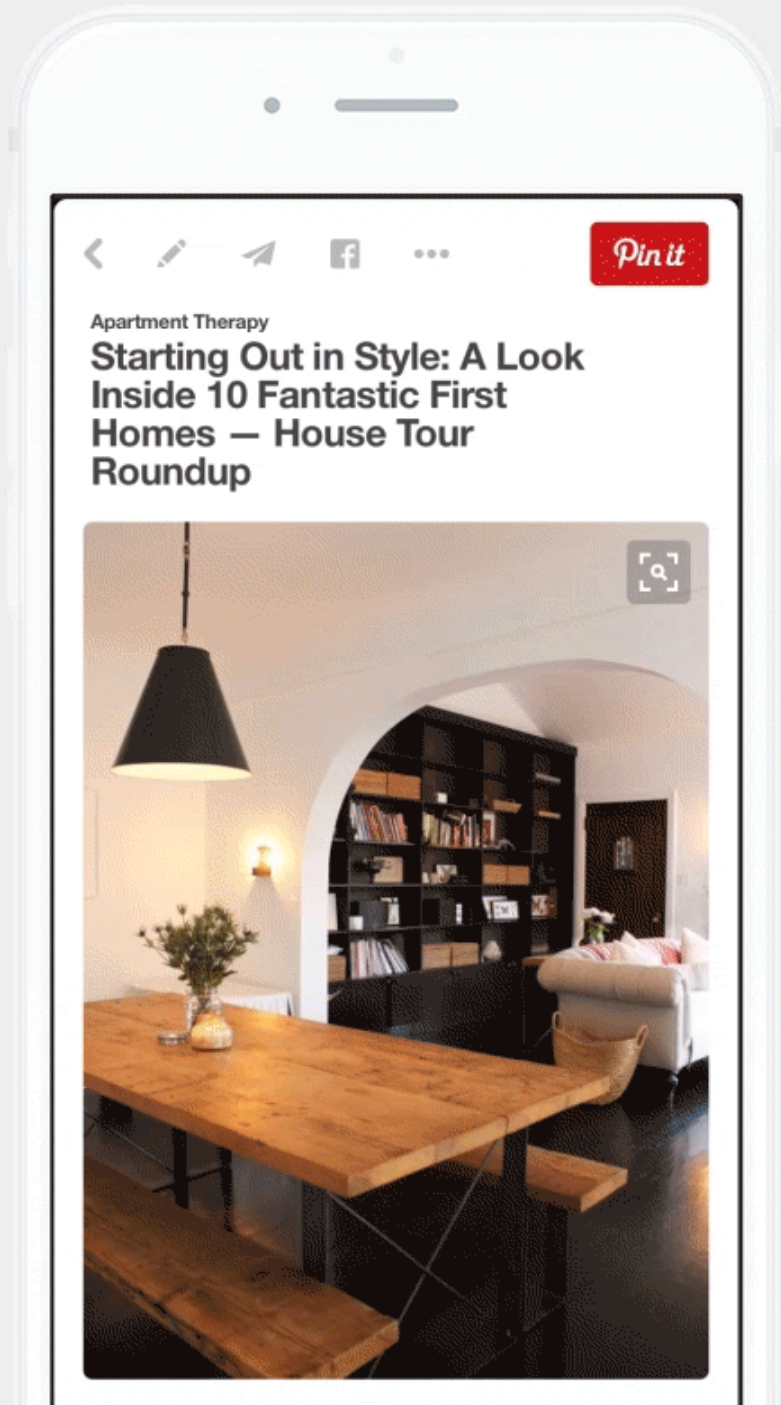
06 EKERÖ armchair

\$129

Home delivery Service
Have your purchase delivered to
your home or office. The delivery
service is provided by an
independent service provider.
Prices start at:

\$59

Find out more at
IKEA-USA.com/services
or at your IKEA store.





Apartment Therapy
**Starting Out in Style: A Look
 Inside 10 Fantastic First
 Homes — House Tour
 Roundup**



Visually similar results

- pendant
- pendant lights
- light
- lamp
- pendant lamps



Antiqued Metal Funnel
 Pendant - Vintage Bronze from
 Restoration Hardware

13 1



Kitchen light

Thanks for your participation



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