

Silver Clouds, Dark Linings:
The 'More Hedonic = Less Functional'
Intuition and
its Implications for Consumption Decisions

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Implications of Assumed Negative Correlation between Hedonics and Functionality

- When information *re* one dimension is provided, people will infer the other
 - Explore whether “Goodness” is inferred from “Fun-ness”
 - Explore whether “Fun-ness” is inferred from “Goodness”
- Consumers *over-rely* on the Intuition
 - Operation of intuition similar to that of stereotypes
- Predictions opposite of what may be expected based on past findings
 - Halo Effects (Nisbett and Wilson 1977)
 - Affect Heuristic (Finucane et al. 2001)
 - Schema theory (Fiske and Pavelchek 1986)

Agenda

- Evidence of Intuition, in the context of:
 - Food (*JM*, 2006)
 - Consumer Durables (*JMR*, under review)
 - Services (e.g., Professors, Massage; data gathering)
 - Tobacco (e.g., Nicotine = tastier?; data gathering)
 - Activities (e.g., Learning = less fun?; data gathering)
- Potential Source(s) of Intuition
 - Social Imprinting
 - Asymmetry in the influence of MH=LF Vs. MF=LH
 - Protestant Tradition as a source
- Implications for “Happiness Maximization”

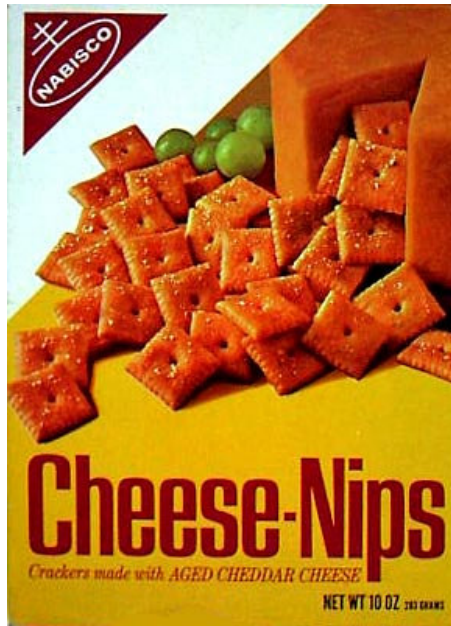
Practical Implications of the 'Unhealthy = Tasty' Intuition

- Obesity Epidemic:
 - 2/3 of US population considered overweight or obese
 - On the rise in other developing nations as well
- Two sides to the issue:
 - Consumer activists: Companies to blame
 - Companies: Consumers are responsible
- Research Objective: Examine a 3rd “side”
 - Do consumers consume unhealthy food not despite of its unhealthiness but *because* of it?

Key Propositions

- Perceived unhealthiness of food ironically enhances its attractiveness
 - Unhealthy foods assumed to be tastier
(Broniarczyk and Alba 1994; Sujan and Dekleva 1987)
- Association between unhealthiness and tastiness is *implicit*
 - Even “non-believers” in intuition exhibit behavior consistent with the intuition
(Lewicki 1986)

Experiment 1: Overview



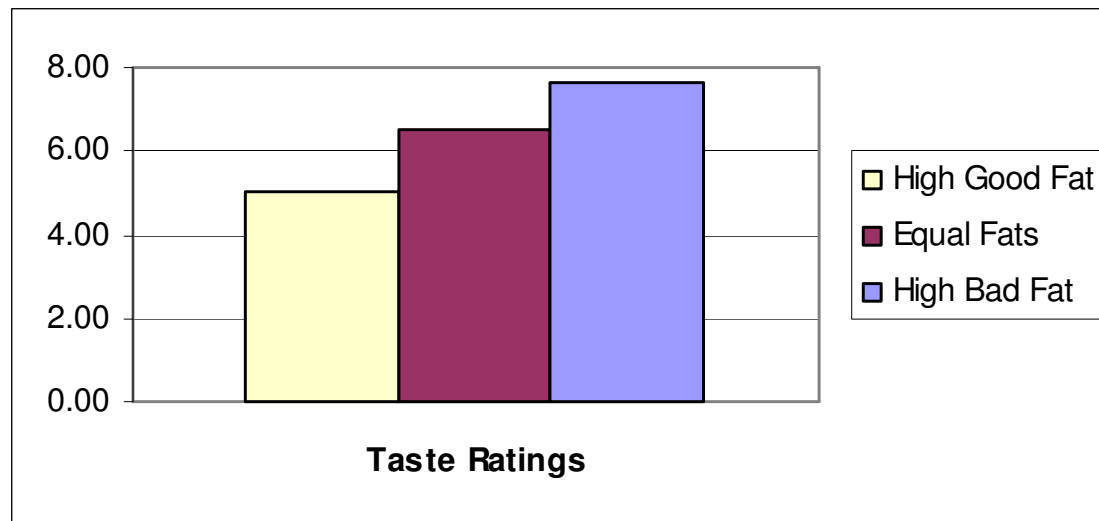
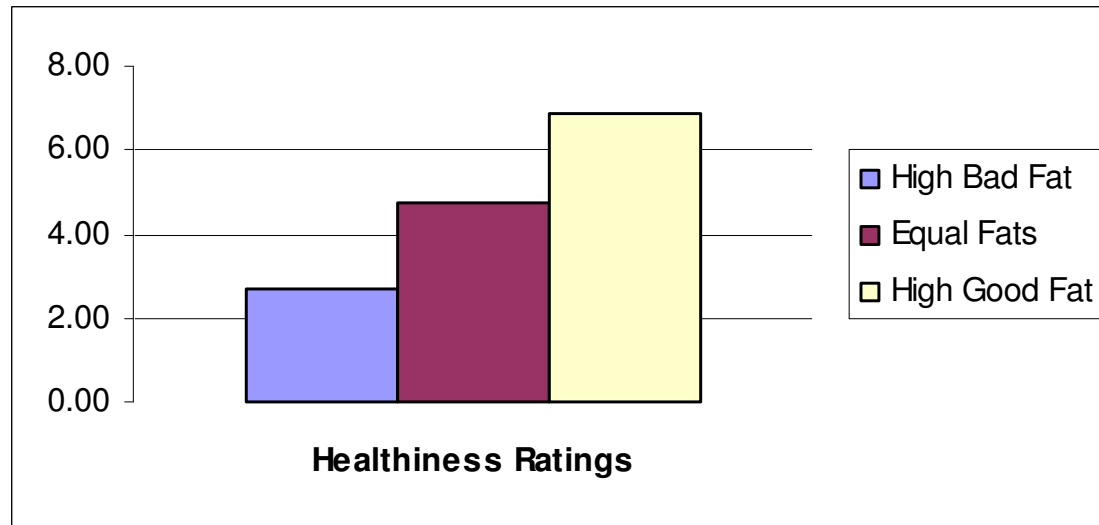
- **Procedure:**
 - Cover story: company introducing new snack cracker
 - View nutritional info for and rate 3 potential versions
- **Dependent variables:**
 - How tasty do you think these crackers are?
 - How much do you think you would enjoy eating them?
- **Measures of explicitness of belief in intuition:**
 - “Things that are good for me rarely taste good.”
 - “There is no way to make food healthier without sacrificing taste.”
- **Subjects:** $n = 110$ undergrads

Experiment 1: (Un)Healthiness Manipulation

- “Consuming **unsaturated fat (good fat)** can raise the level of high-density lipoproteins (HDL), which carry cholesterol from the heart to the liver and thereby eliminate excess cholesterol; in contrast, consuming **saturated fat (bad fat)** can raise the level of low-density lipoproteins (LDL), which carry cholesterol from the liver to the rest of the body and thereby lead to blocked coronary arteries.”
- Healthiness: 3 level within-subject variable:

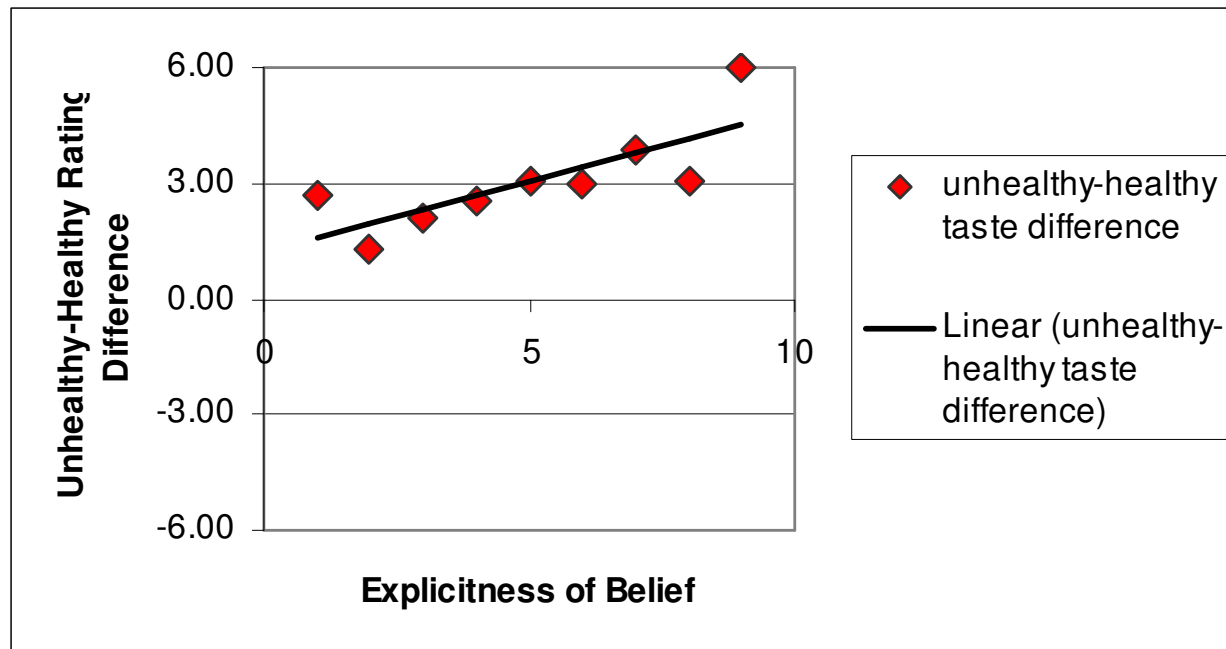
Cracker Version	Unsaturated (Good) Fat	Saturated (Bad) Fat
A: Healthy	11 g	2 g
B: Unhealthy	2 g	11 g
C: Control	6.5 g	6.5 g

Experiment 1: Results



Experiment 1: Role of Explicitness of Belief

- Unhealthiness \times explicitness of belief interaction, $F(2, 103) = 12.12, p < .001$
 - Difference in tastiness ratings for unhealthy vs. healthy cracker significant at every level of belief

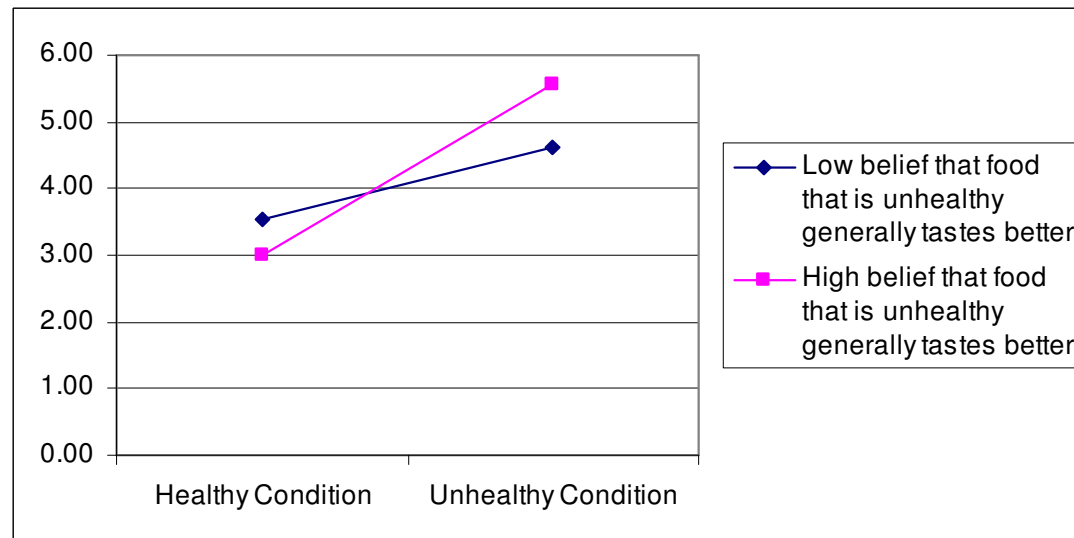
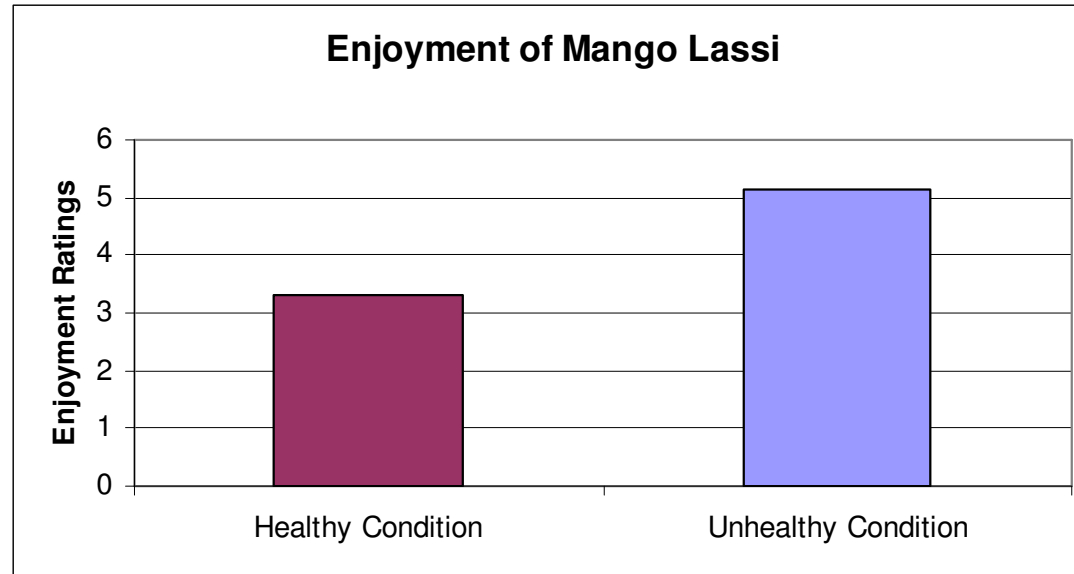


Experiment 2: Enjoyment of Mango Lassi



- **Cover Story:** Tasting dishes for a new Indian restaurant
- **Subjects:** 40 adult attendees at party
- **Procedure:** Read descriptions of 3 Indian dishes, sampled them, rated actual taste/enjoyment
- **Target Dish:** *Mango Lassi*
 - Between-subjects factor: Described as relatively healthy or unhealthy
- **Measures of Belief in Intuition:** elicited via email after party

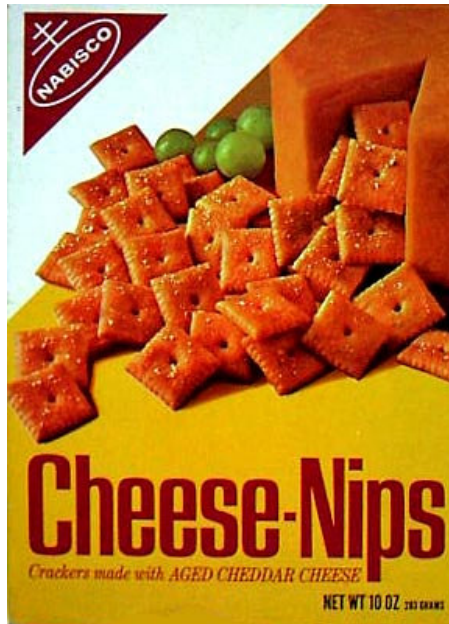
Experiment 2: Results



Experiment 2: Conclusions

- Intuition influences actual enjoyment
- Between-subject (vs. within-subject) design
- Different product category
- Different (more direct) healthiness manipulation
- More realistic experimental set-up

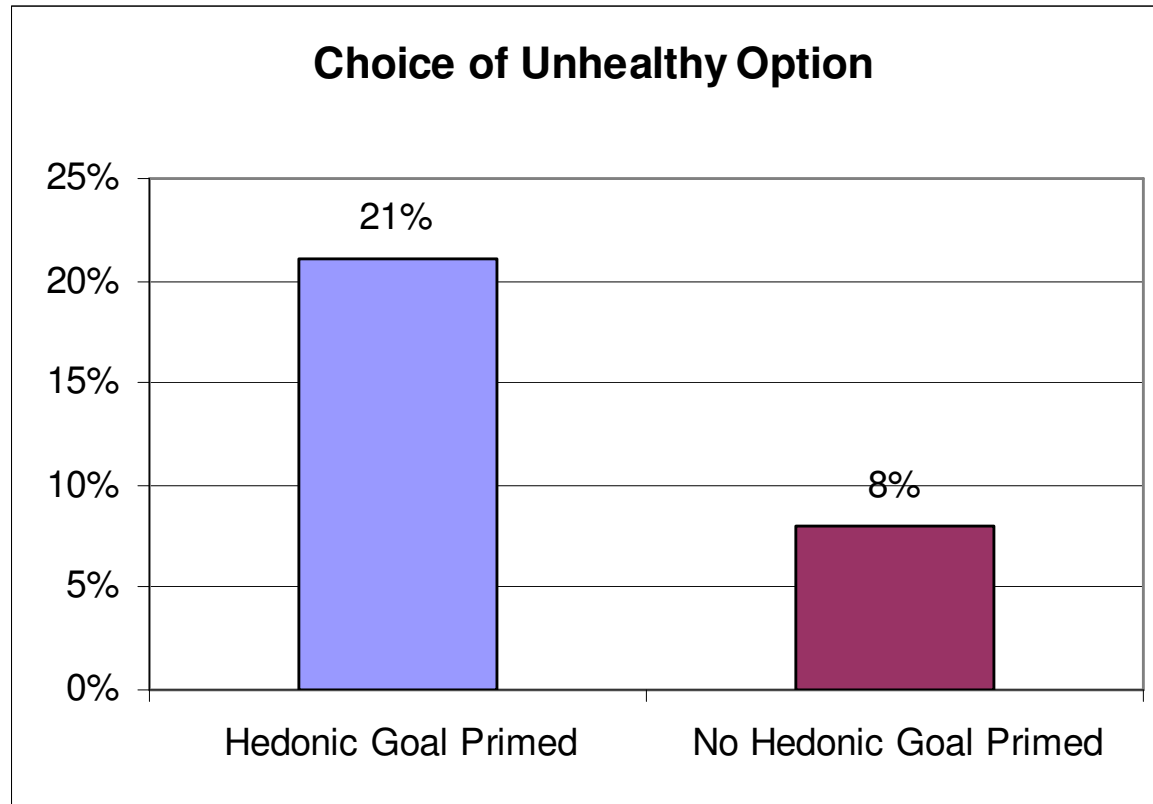
Experiment 3: Choice of Crackers



- **Research Objective:** Will intuition affect choice?
- **Subjects:** n = 293 undergrads
- **Procedure and tastiness manipulation:** only the high good fat and high bad fat versions of Exp. 1
- Manipulation of hedonic goal - 2 groups
 - **Enjoyment goal:** Imagine you were “craving something really tasty” and that “you wanted to reward yourself with a nice snack.”
 - **Control:** Imagine that you were “in the mood for a snack”
- **Dependent variable:** cracker selected in a forced choice task

φ

Experiment 3: Results



■ $\chi^2 = 15.88, p < .001, \Phi = .23.$

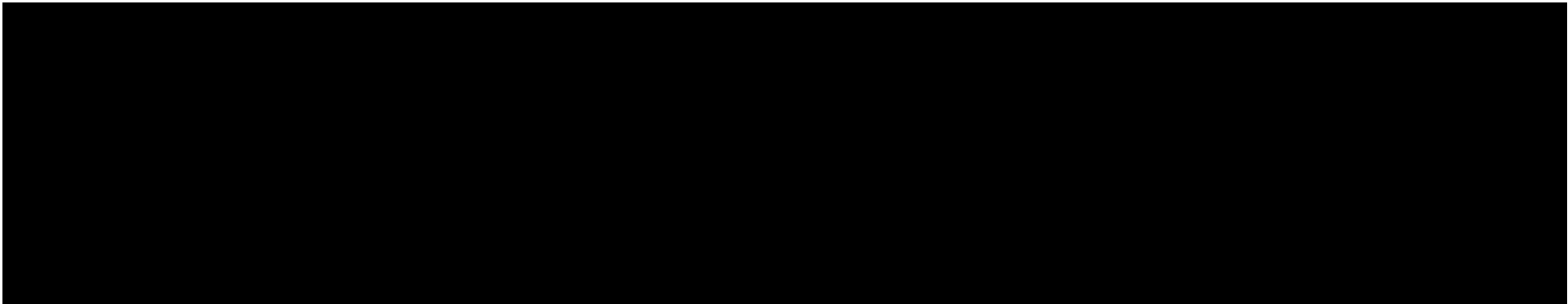
Experiment 4: Evidence that Influence of Intuition is *Implicit*

- **Research Goal:** To explore implicit subscription to the unhealthy = tasty intuition
- **Subjects:** 138 Undergraduates
- **Procedure:**
 - **IAT Procedure**
(Greenwald, et. al., 1998, 2003)
 - **Explicit beliefs** measured before IAT:
 - o “Things that are good for me rarely taste good.”
 - o “There is no way to make food healthier without sacrificing taste.”

Unhealthy Foods

Healthy Foods





Enjoyable

Not Enjoyable

Unhealthy Foods or
Enjoyable

Healthy Foods or
Not Enjoyable

Mouthwatering
Bland



Healthy Foods or
Enjoyable

Unhealthy Foods or
Not Enjoyable

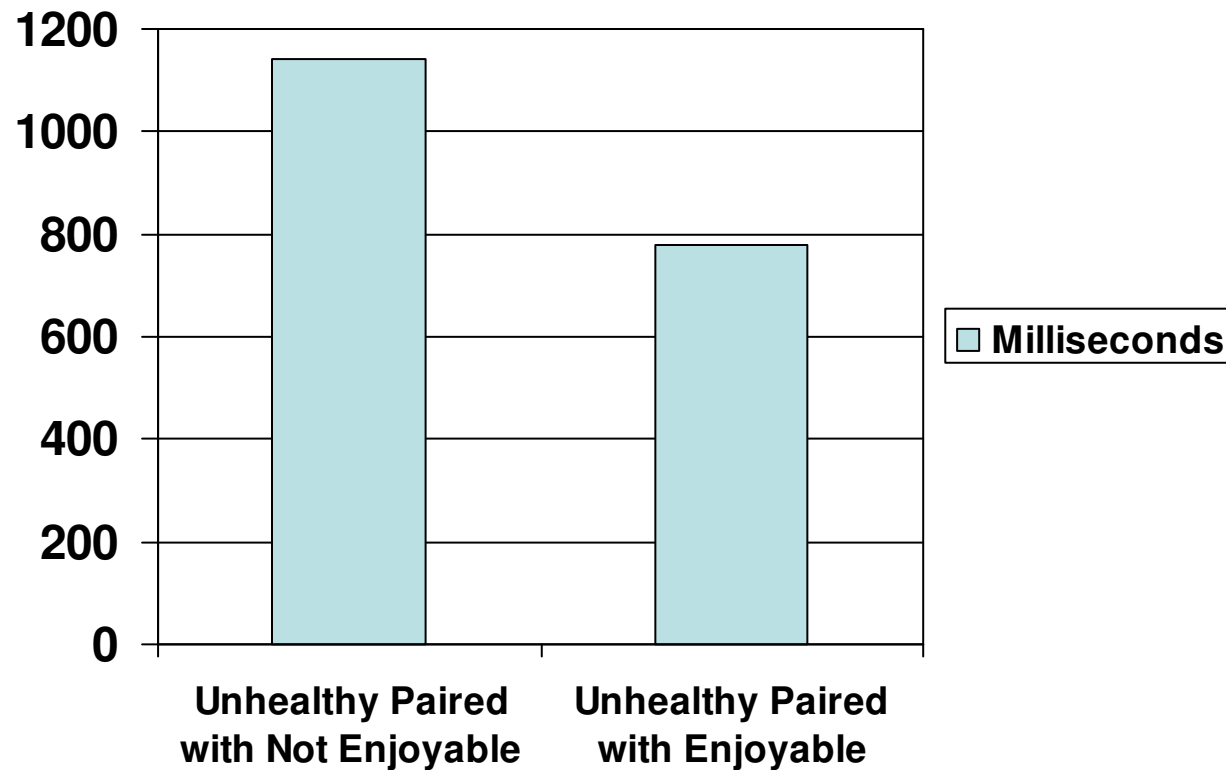
Mouthwatering
Bland



IAT Stimuli: Pictures of Healthy and Unhealthy Foods



Experiment 4: Response Latencies



$D = 0.648$, $SD = .497$, $t(135) = 17.19$, $p < .0001$, $d = 1.42$

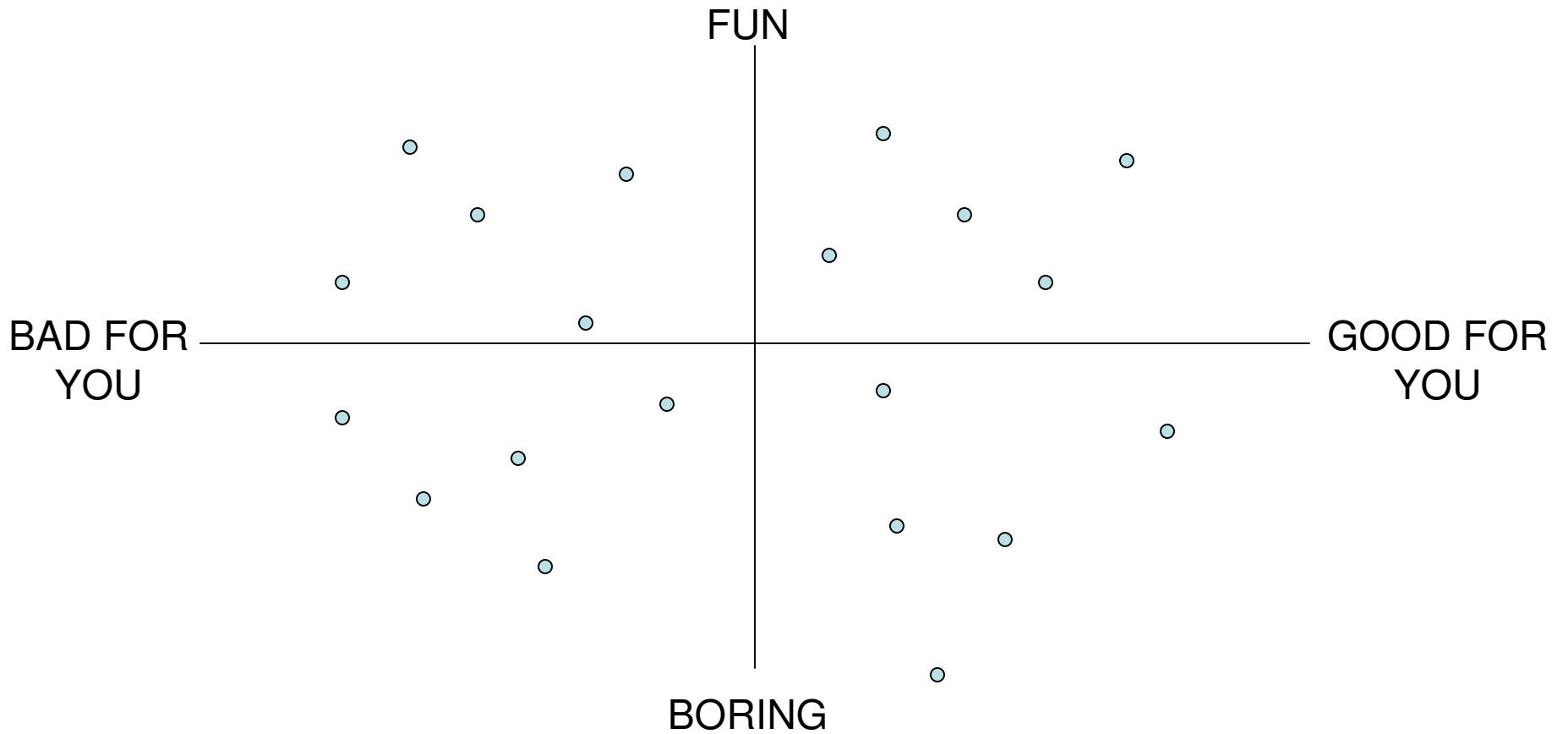
Overall Conclusions

- Foods perceived as less healthy are:
 - Inferred to taste better
 - Enjoyed more during actual consumption
 - Preferred when a hedonic goal is more salient
- Influence of Intuition is Implicit
- Effects obtained:
 - With Unhealthiness (vs. Fat) manipulation
 - Atkins => High Carbs = More Tasty
 - Despite lack of scientific evidence for intuition
 - Evolutionary Biologists' View: Tasty = Healthy

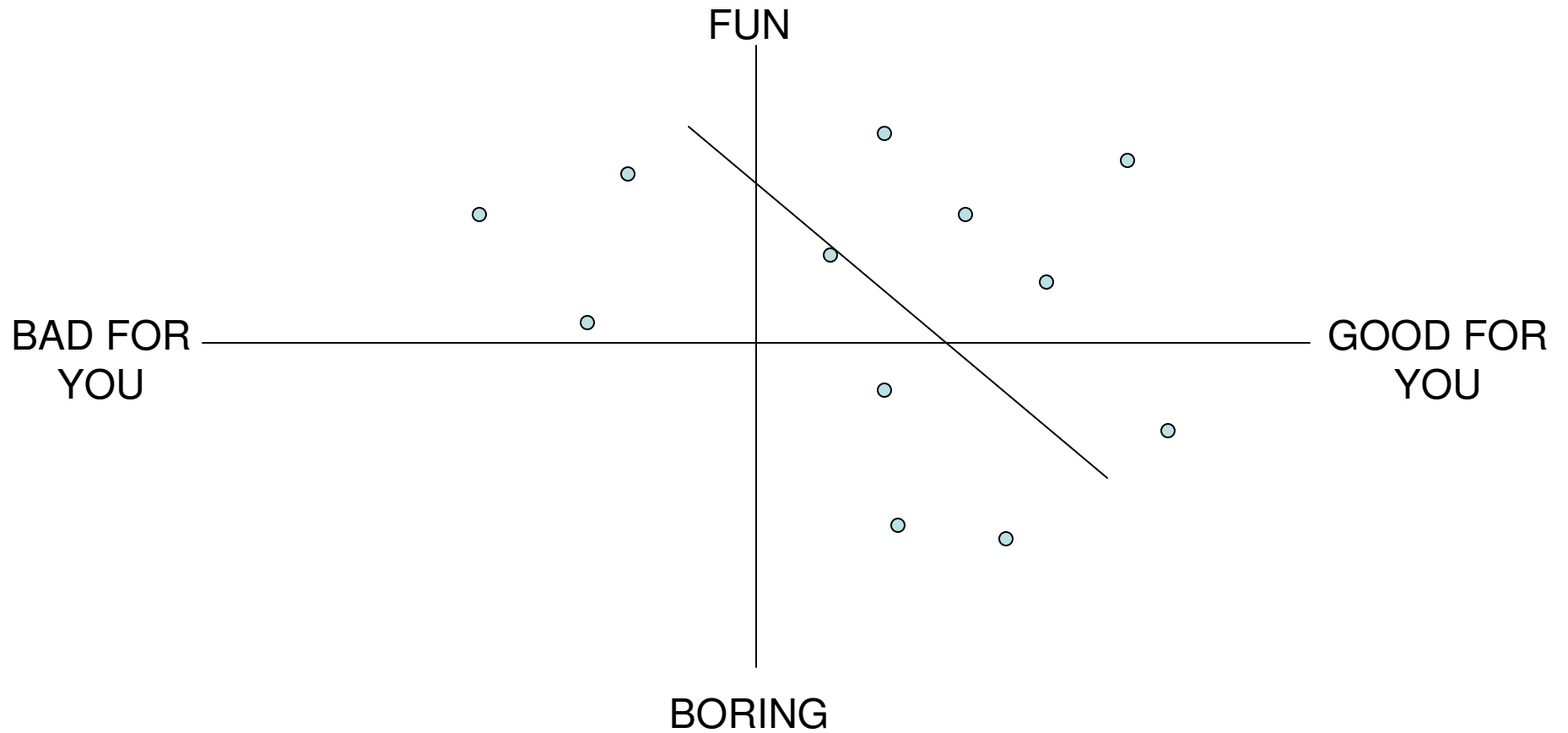
Unresolved Issues

- Does the 'More Hedonic = Less Functional' Influence extend to other contexts?
 - Consumer Durables (e.g., Cars, Cameras)
 - Services, Activities, Other contexts (Alc. & Tob.)
- What are the potential sources of Intuition?
 - Natural Exclusion
 - Social Imprinting
 - Religious/cultural forces

Natural Exclusion



Natural Exclusion



Issues with Natural Exclusion

- Assumes unambiguity of stimuli's Goodness and Funness potentials
 - Tom Sawyer's painting of the fence
 - Pay \$\$ to work out
 - Pay \$\$ to fast and volunteer to “facilitate colon cleansing”
 - Coherent Arbitrariness (Ariely et al. 2003)
- Implies:
 - Symmetry in strength of more hedonic = less functional and more functional = less hedonic intuitions
 - Intuitions are valid

Social Imprinting

<p><u>Quadrant 1</u></p> <p>E.g., Broccoli</p> <p>Intervention Most Likely</p>	<p><u>Quadrant 2</u></p> <p>E.g., Popcorn</p> <p>Intervention Unlikely</p>
<p><u>Quadrant 2</u></p> <p>E.g., Coffee</p> <p>Intervention Unlikely</p>	<p><u>Quadrant 3</u></p> <p>E.g., Candy</p> <p>Intervention Most Likely</p>

Potential Source for the Intuition III

<u>Quadrant 1</u> E.g., Broccoli Intervention Quite Likely	<u>Quadrant 2</u> E.g., Popcorn Intervention Unlikely
<u>Quadrant 2</u> E.g., Coffee Intervention Unlikely	<u>Quadrant 3</u> E.g., Candy Intervention Most Likely

- The more hedonic = less functional intuition is learnt *even* if:
 - Real correlation between Fun-ness and Goodness is zero
 - There is “intervention” in all four quadrants
 - Greater belief in more hedonic = less functional vs. more functional = less hedonic
- Over time:
 - People are likely to “internalize” intuitions
 - Act in accordance with it without awareness of doing so
 - Propagate it to others despite not being sure of its validity

Religious/Cultural Sources

- The “Puritan” Perspective:
 - Hinduism: Moksha is possible only by giving up “wordly pleasures”
 - Islam: Pain is cathartive (e.g., Moharram)
 - Christianity: Original Sin
 - Protestant work ethic (Weber 1998)
 - Luxuries don’t come easy
 - Have to work hard to “earn the right to indulge” (Kivetz and Simonson 2002)
- Stimuli can be of a “serious,” “worthy,” “work” oriented nature or of a “fun” “trivial,” and “frivolous” nature, but not both

Predictions:

Consumer Durables Context

- Basic Predictions:
 - H1: The same item will be *inferred* to be less enjoyable when it is portrayed as more functional
 - H2: The same item will be *judged* to be less enjoyable (in actual sampling) when it is portrayed as more functional
 - H3: When a hedonic goal is more salient, consumers will *choose* items portrayed as less functional
 - H4: Influence of intuition is likely to be implicit
- New Predictions:
 - H5: Asymmetry in strength of more hedonic = less functional vs. more functional = less hedonic
 - Consistent with Social Imprinting as a source
 - H6: Effects stronger in cultures with a stronger Protestant Tradition
 - Consistent with religious/cultural messages being a source

Experiment 1: *Inferences of Functionality*

- Presented pictures of various stimuli, including 2 cars
- Asked for “safety,” “value for money,” and “practicality” ratings of the 2 cars on 9-point scale
- Results ($n = 157$ undergrads):



	Mini Cooper	Kia Spectra	p value
Safety	2.95	3.64	.01
Practicality	4.48	6.58	.01
Value for Money	5.63	6.39	.01

Experiment 2: Actual Functional Performance

- Presented picture purportedly taken with a “fun” or a “regular” camera (between subjects)
- Asked to rate picture on:
 - quality of color,
 - quality of resolution, and
 - overall quality
- Results ($n = 163$ undergrads):

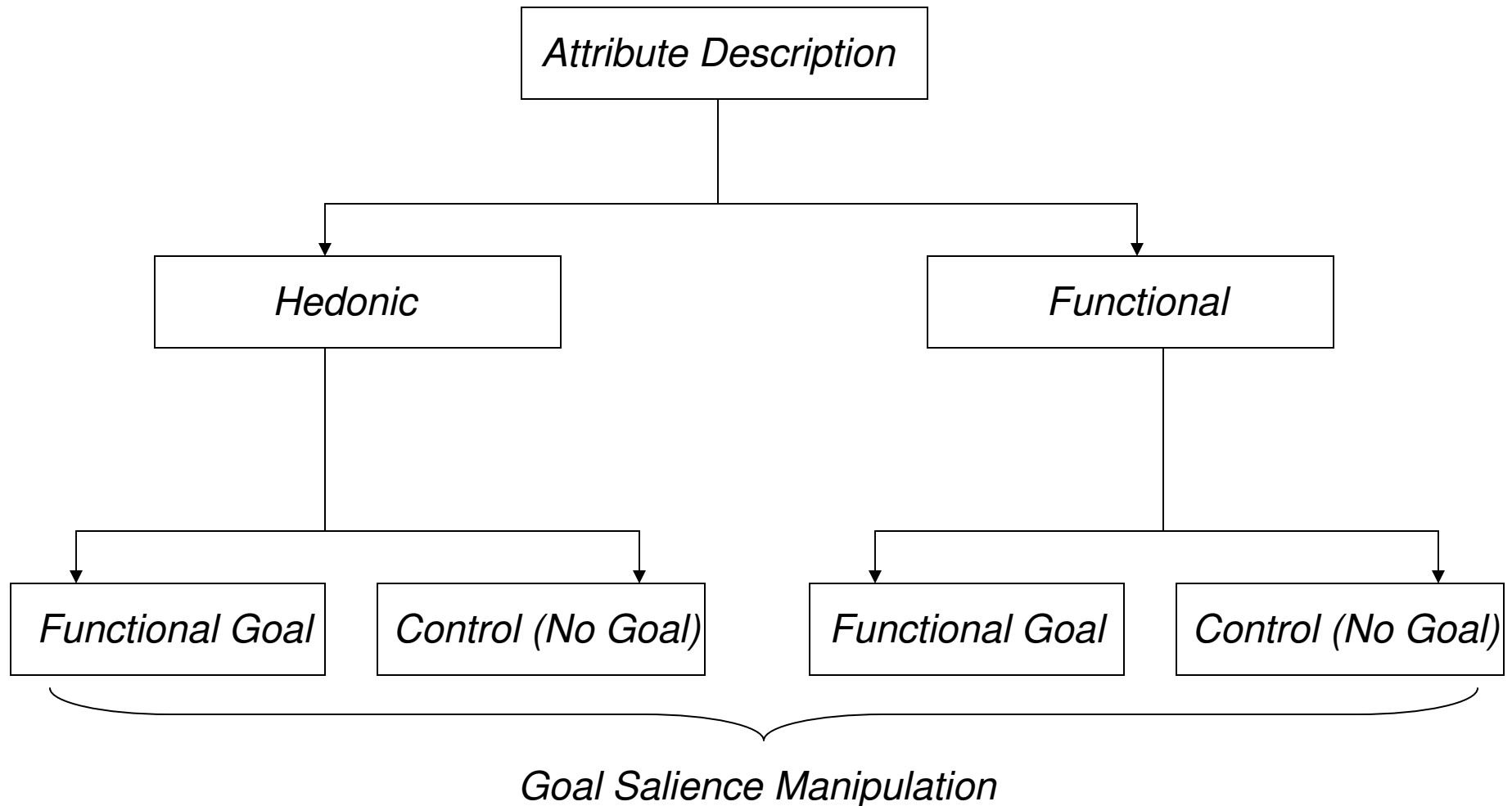


	“Fun” Camera	“Control” Camera	p value
Color	5.16	5.67	.06
Resolution	3.57	4.05	.07
Overall	4.02	4.47	.10

Experiment 3: Overview

- Objectives:
 - Show effect on choice
 - Implicit nature of influence
 - Asymmetry in influence of MH=LF Vs. MF = LH
- Task:
 - Preference and Choice of Cell Phone

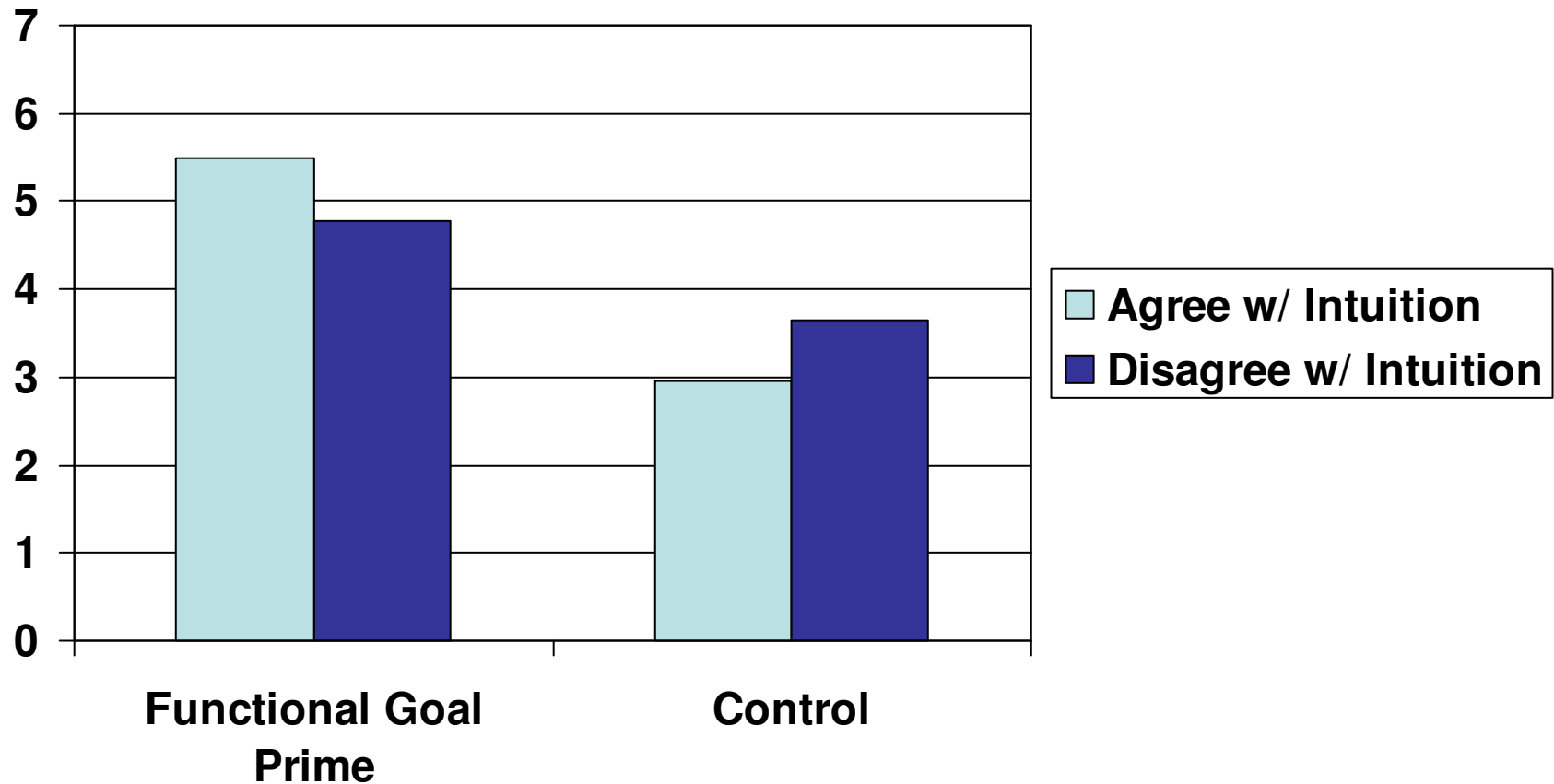
Experiment 3: Design



Experiment 3: Stimuli & Conditions

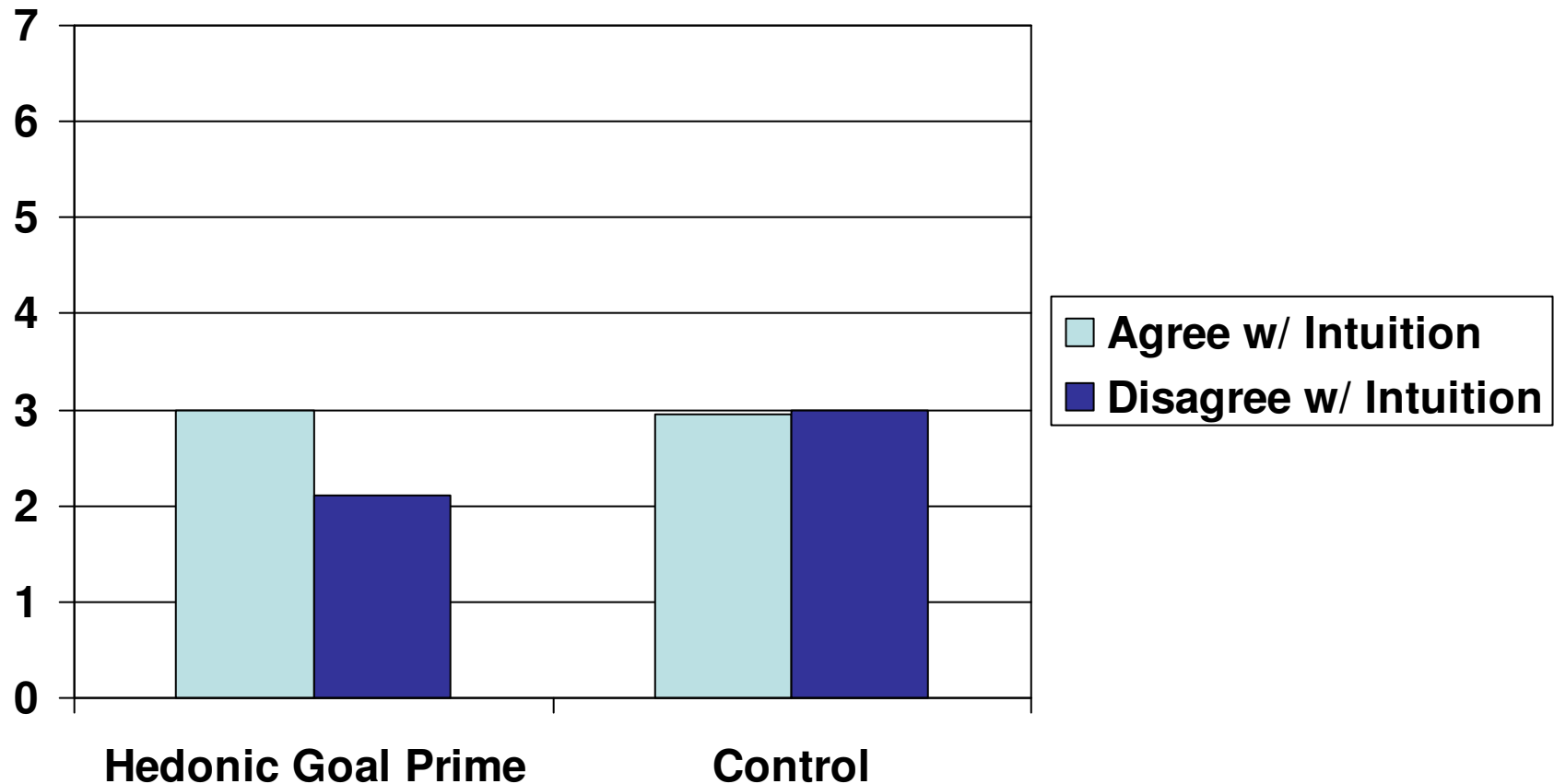
- Hedonic Attribute Description Condition:
 - Cell Phone X (High Hedonics): “very stylish,” “well designed”
 - Cell Phone Y (Low Hedonics): “traditional looking”
- Functional Attribute Description Condition:
 - Cell Phone X (High Functionality): “easy to use, long battery life”
 - Cell Phone Y (Low Functionality): “not very easy to use, relatively short battery life”
- Goal Prime Manipulations:
 - Hedonic Attribute Description Condition:
 - Functional Goal Prime: “want to buy a phone primarily for work”; “to check email and make important calls”
 - Control: Nothing is primed
 - Functional Attribute Description Condition:
 - Hedonic Goal Prime: “want to buy a phone for personal use”; “interested in a phone that looks good and appears stylish”
 - Control: Nothing is primed
- Explicitness of belief in intuition:
 - Agree/Disagree: “If you want something that is really stylish/attractive, you often have to sacrifice functionality to get it”

Experiment 3: Hedonic Attribute Description Condition



Simple effects: significant in “agree” at $p < .01$ and in “disagree” at $p < .06$

Experiment 3: Functional Attribute Description Condition



“Goal prime” main effect was significant at $p < .09$; all other effects were ns

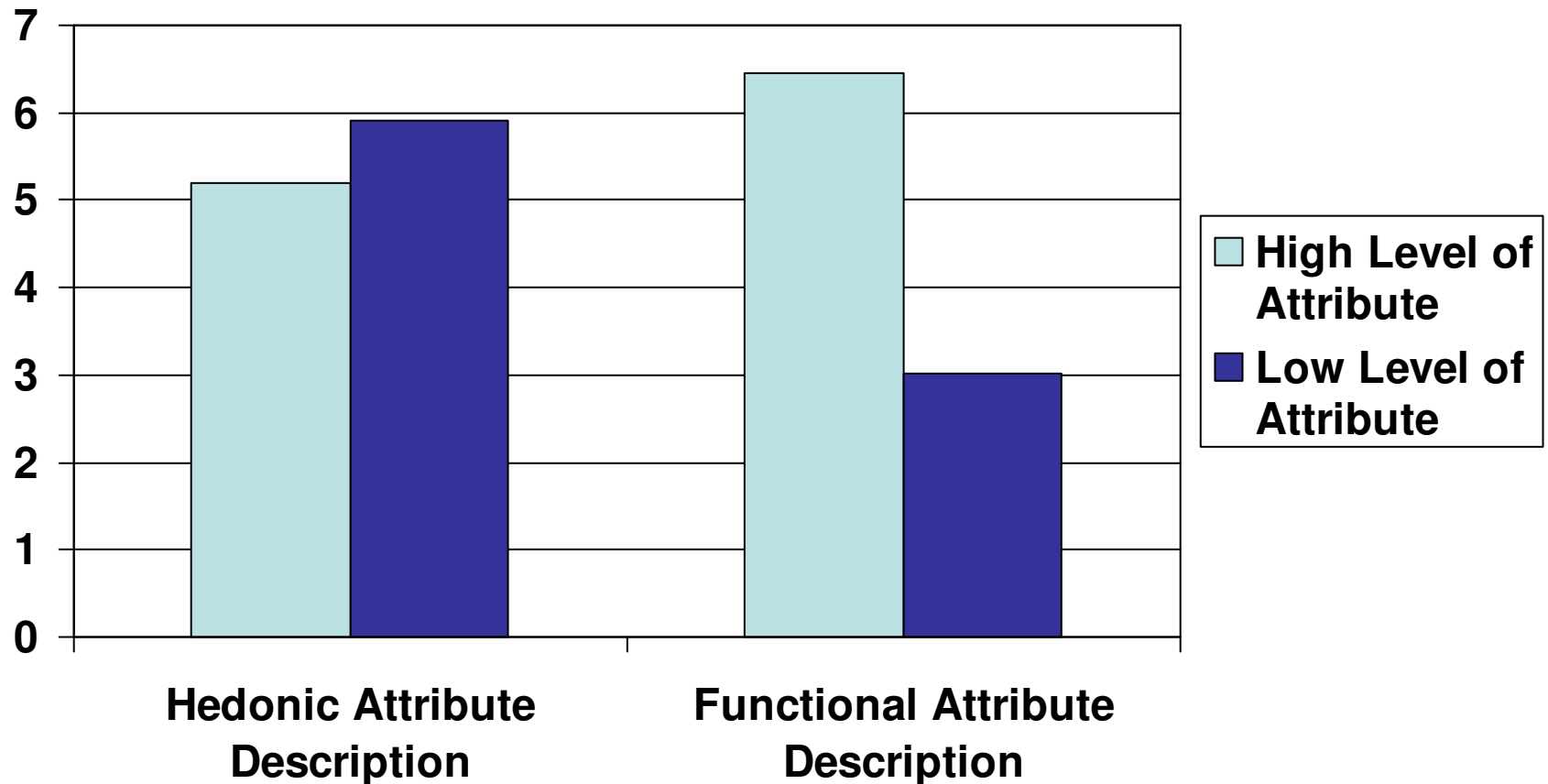
Experiment 3: Discussion

- Results consistent with subscription to the ‘MH=LF’ Intuition, but not with ‘MF=LH’
 - Suggests that social imprinting (which emphasizes the MH=LF directionality is a significant source of the intuition
- Evidence of implicit influence of the ‘MH=LF’ Intuition

Experiment 4: Overview

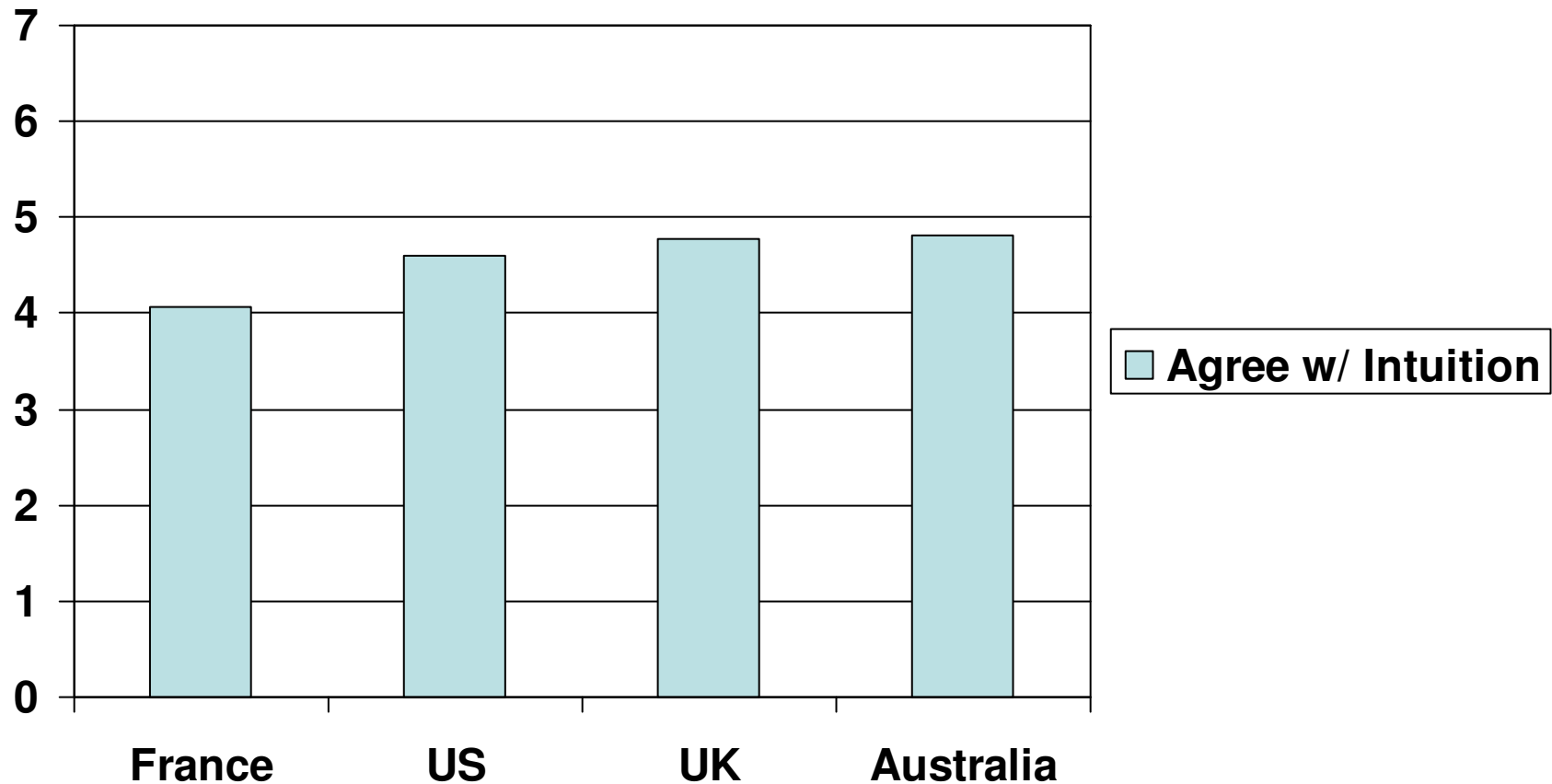
- Objectives:
 - Explore cross-cultural effects
- Procedure:
 - 2085 respondents from US, UK, France and Australia
 - Hedonic or Functional Attribute Description Condition
 - Manipulation check followed by Inferences of *other* dimension
 - Measurement of Explicitness of Belief in Inverse correlation between hedonics and functionality
- Task:
 - Inferences of Hedonics or Functionality of electric stand mixer

Experiment 4: Asymmetry Results



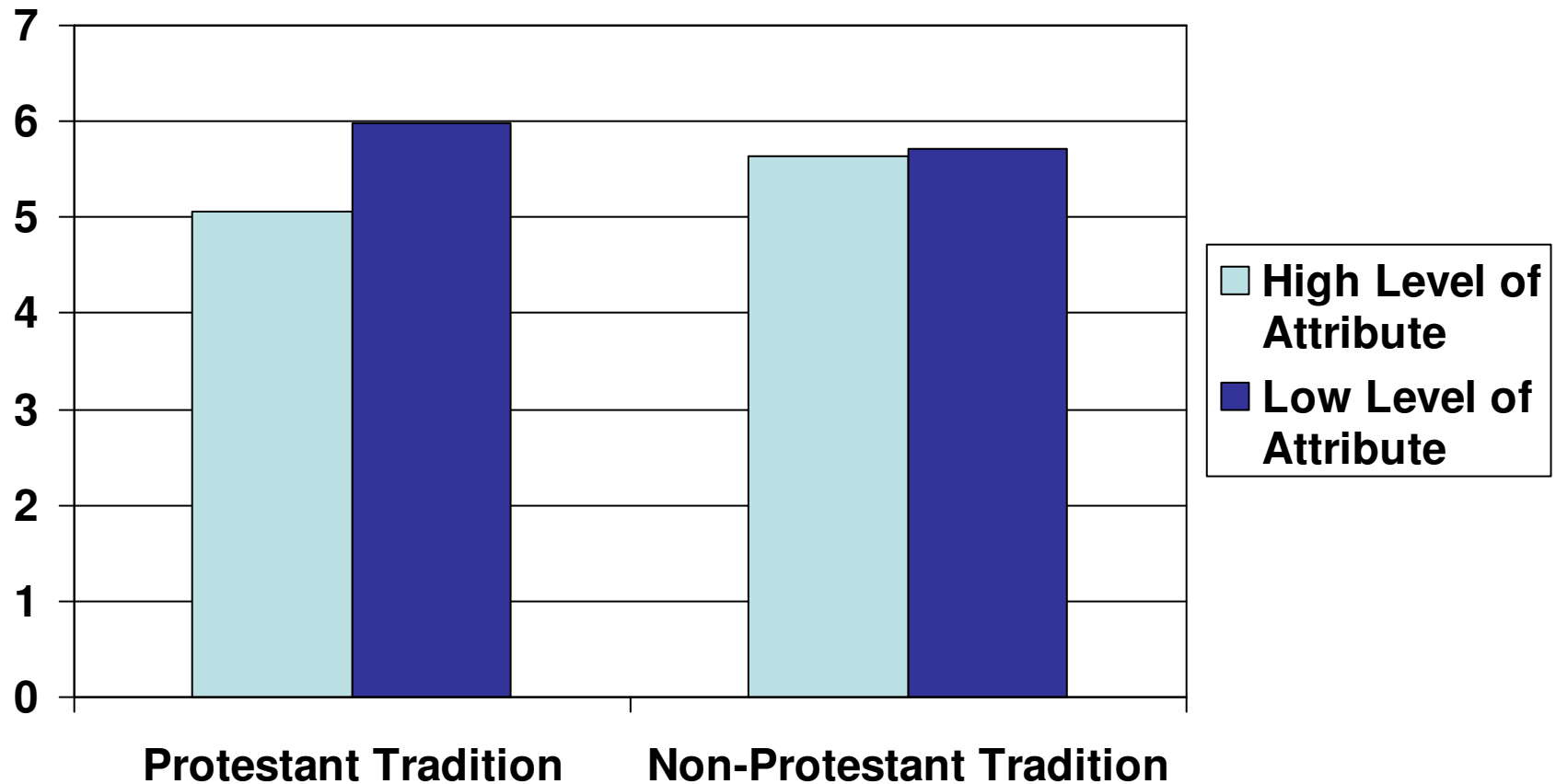
2-way interaction, both simple effects significant at $p < .01$

Experiment 4: Protestant Tradition's Effect on Agreement with Intuition



Simple effects: significant in "agree" at $p < .01$ and in "disagree" at $p < .06$

Experiment 4: Influence of MH=LF Intuition as a function of PT



2-way interaction, both simple effects significant at $p < .01$

Experiment 4: Discussion

- Results consistent with subscription to the ‘MH=LF’ Intuition, but not with ‘MF=LH’
 - Evidence, again, for social imprinting
- Greater inferred Hedonics in more Functional product
 - Halo/Affect Heuristic/Schema Vs. Other Forces
- Evidence of implicit influence of the ‘MH=LF’ Intuition (not highlighted)

Overall Discussion

- Intuitions may be of questionable validity...yet, people subscribe to them
- Robust across:
 - Contexts (food, cars, cameras, cell phones)
 - Functionality/Hedonics manipulations (pictorial, verbal)
- Evidence for social imprinting and protestant tradition underlying MH=LF Intuition
- Explains:
 - Listerine's popularity?
 - Popularity of “bad boys” and “mean girls”?

Future Research

- Other Contexts:
 - Short-term (emotional) Benefits vs. Long-term (Cognitive) Benefits
 - Attractiveness vs. Intelligence
 - Tobacco
 - Obesity
- Validity of Intuitions:
 - Secondary Data Analysis in other contexts/categories?
 - Discrepancy between actual and perceived correlation across cultures
 - Less in France
 - Less in India for food?
 - “Arbitrary” Judgments of Enjoyability and Wholesomeness



"It doesn't taste as good now that it's not a sin."

