

McCormick Brings Passion to Flavor™



Measuring Consumer Wellness Associated with Food

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SOCIETY OF
SENSORY
PROFESSIONALS

The logo for the Society of Sensory Professionals, featuring the text 'SOCIETY OF SENSORY PROFESSIONALS' in a serif font, with a stylized green leaf-like graphic to the right.

Approach



Definition



Wellness questionnaires



Questionnaire development



Validation



Applications

Approach



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Questionnaire development



Validation



Applications



Health



Wellness



Health



Wellness

Assessment

Objective

Subjective

“Disease” (heart disease)

“Illness” (fatigue)



Health



Wellness

Assessment

Objective

Subjective

“Disease”

“Illness”

Dimensions

Physical (primarily)

Physical, emotional,
intellectual, social, spiritual



Health



Wellness

Assessment

Objective

Subjective

“Disease”

“Illness”

Dimensions

Physical (primarily)

Physical, emotional,
intellectual, social, spiritual

Measurement

Biomarkers (e.g. blood lipids) structure and function (e.g. treadmill test)

Self-assessment: how the person feels and functions

Wellness was conceptualized as...

“a positive subjective experience with multi-dimensional components (physical, emotional, intellectual, social and spiritual) that results in and is enhanced by a sense of empowerment”

J. Snow, 2011 ,Tai Sophia Institute



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Wellness Questionnaires available vary in approach, format and results...

Learnings

- Overall question (“wellness”)

Please rate your overall...

Quality of life

Physical health

Emotional health

Wellness Questionnaires available vary in approach, format and results...

Learnings

- ⌚ Overall question
- ⌚ Variety of dimensions

- ⌚ Physical
- ⌚ Emotional
- ⌚ Spiritual
- ⌚ Intellectual
- ⌚ Social
- ⌚ Mental
- ⌚ Financial
- ⌚ Cultural
- ⌚ Environmental

Wellness Questionnaires available vary in approach, format and results...

Learnings

- ⌚ Overall question
- ⌚ Variety of dimensions
- ⌚ Calculations lead to single score of wellness

$$\text{Calculated Wellness} = \sum \text{positive items} - \sum \text{negative items}$$

Wellness Questionnaires available vary in approach, format and results...

Learnings

- ⌚ Overall question
- ⌚ Variety of dimensions
- ⌚ Calculations lead to single score of wellness

Challenges

- ⌚ Objective and subjective questions
 - ⌚ Focus on different aspects of 'health and wellness'

1. Do you exercise to the point of perspiration at least twice a week?
2. Do you get 7-8 hours of sleep, at least 4 nights a week?

Wellness Questionnaires available vary in approach, format and results...

Learnings

- ⌚ Overall question
- ⌚ Variety of dimensions
- ⌚ Calculations lead to single score of wellness

Challenges

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3. How much do you enjoy life?

4. To what extent do you feel your life to be meaningful?

WHOQOL Revised questionnaire 2004

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Challenges

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- ⌚ Focus on different aspects of 'health and wellness'
- ⌚ Score depends on:
 - ⌚ number of dimensions
 - ⌚ number of questions within dimension

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- ⌚ Overall question
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Challenges

- ⌚ Objective and subjective questions
- ⌚ Focus on different aspects of 'health and wellness'
- ⌚ Score depends on:
 - ⌚ number of dimensions
 - ⌚ number of questions within dimension
- ⌚ Questionnaire length

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Respondents classified Wellness terms into dimensions...

Emotional	Intellectual	Social	Physical	Spiritual
Affectionate	Accomplished	Accepted	Active	Comforted
Calm	Alert	Approachable	Energetic	Compassionate
Happy	Attentive	Concerned/others	Fatigued	Fulfilled
Loved	Creative	Connected	Healthy	Grateful
Relaxed	Curious	Disconnected	Invigorated	Joyful
Sad	Focused	Friendly	Refreshed	Peaceful
Satisfied	Stimulated	Lonely	Resilient	Unfulfilled
Secure	Stressed	Sociable	Rested	Uninspired
Tense	Uninterested	Supported	Tired	Whole

Internet surveys – respondents categorized terms into 1 or more dimensions

There are 7 positive and 2 negative terms in each dimension...

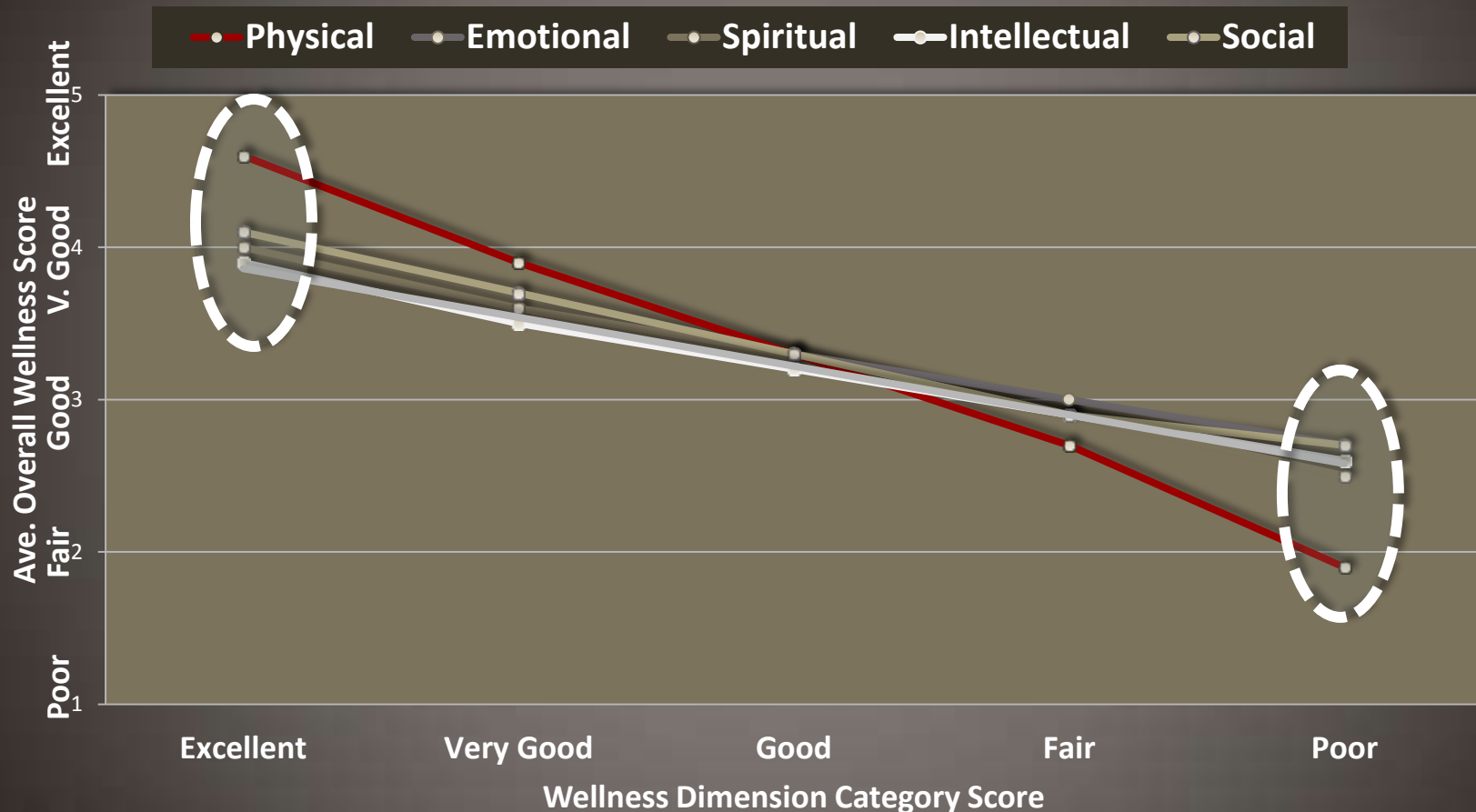
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Tense	Uninterested	Supported	Tired	Whole

Please indicate 'in the past month', to what extent have you felt ...? (Where 1 = not at all ... 5 = extremely, or CATA)

Compassionate	Friendly	Attentive	Concern/others	Tired
Loved	Uninterested	Accepted	Energetic	Satisfied
Disconnected	Refreshed	Resilient	Unfulfilled	Peaceful
Accomplished	Joyful	Sad	Calm	Stimulated
Healthy	Relaxed	Whole	Alert	Supported
Fulfilled	Lonely	Affectionate	Connected	Uninspired
Secure	Focused	Approachable	Tense	Active
Fatigued	Sociable	Invigorated	Grateful	Comforted
Curious	Rested	Stressed	Creative	Happy

Wellness terms randomized between and within dimensions

Physical Wellness correlates to Overall Wellness more strongly than the other dimensions especially at the extremes ('excellent' and 'poor')...



Internet survey –

How would you rate your overall wellness in the past month?

How would you rate your (physical) wellness in the past month?

Internet Survey
n ≈ 800

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Internet survey and CLT results were similar to literature results...

AROMATIC	Internet (name) n ≈ 200/aroma	CLT (aroma) n ≈ 200/aroma
Lavender	↑ Affectionate ↑ Calm ↑ Compassionate ↑ Rested	↑ Calm ↓ Anxious
Peppermint	↑ Stimulated	↑ Refreshed ↑ Satisfied ↑ Stimulated

Herz, R.S., 2009 Aromatherapy facts and fictions: A scientific analysis of olfactory effects on mood, physiology and behavior. *Int. Journal Neuroscience*, 119(2):263-90

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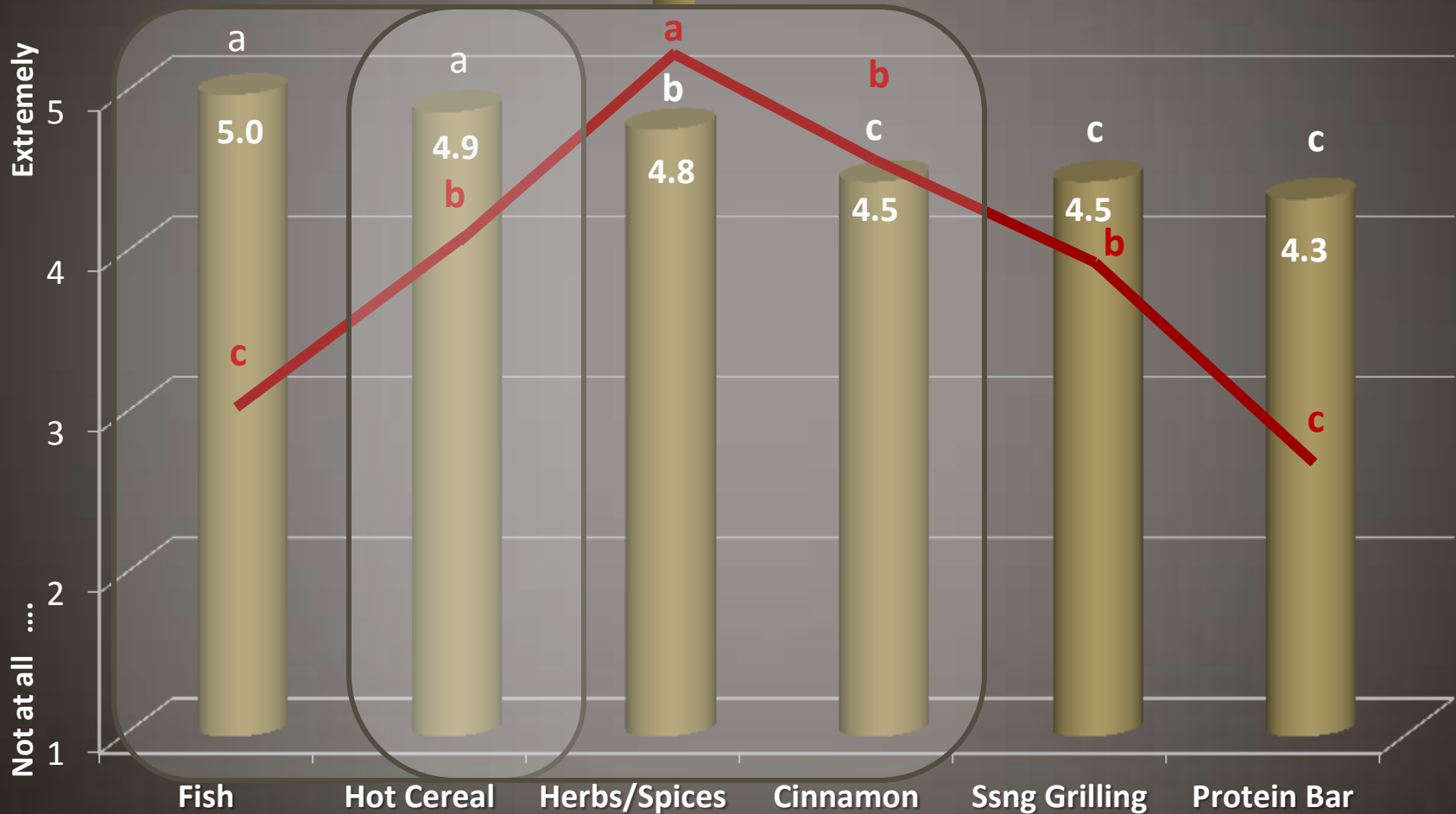


Applications

Calculated wellness (from terms) follows a different pattern compared to the wellness score (wellness question)...

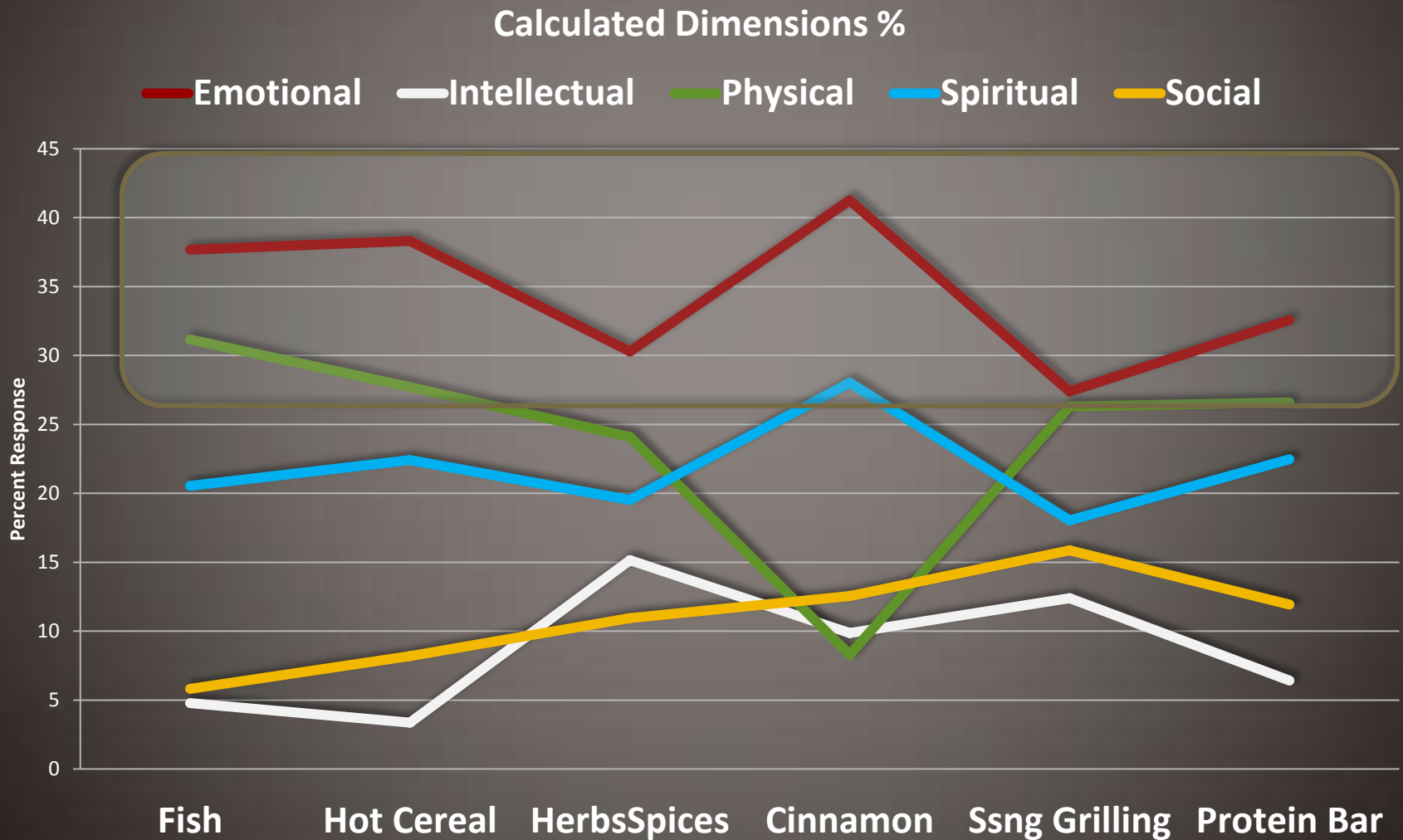
How would you rate the impact 'this product' has on your overall wellness?

Wellness Score  vs. Calculated Wellness 



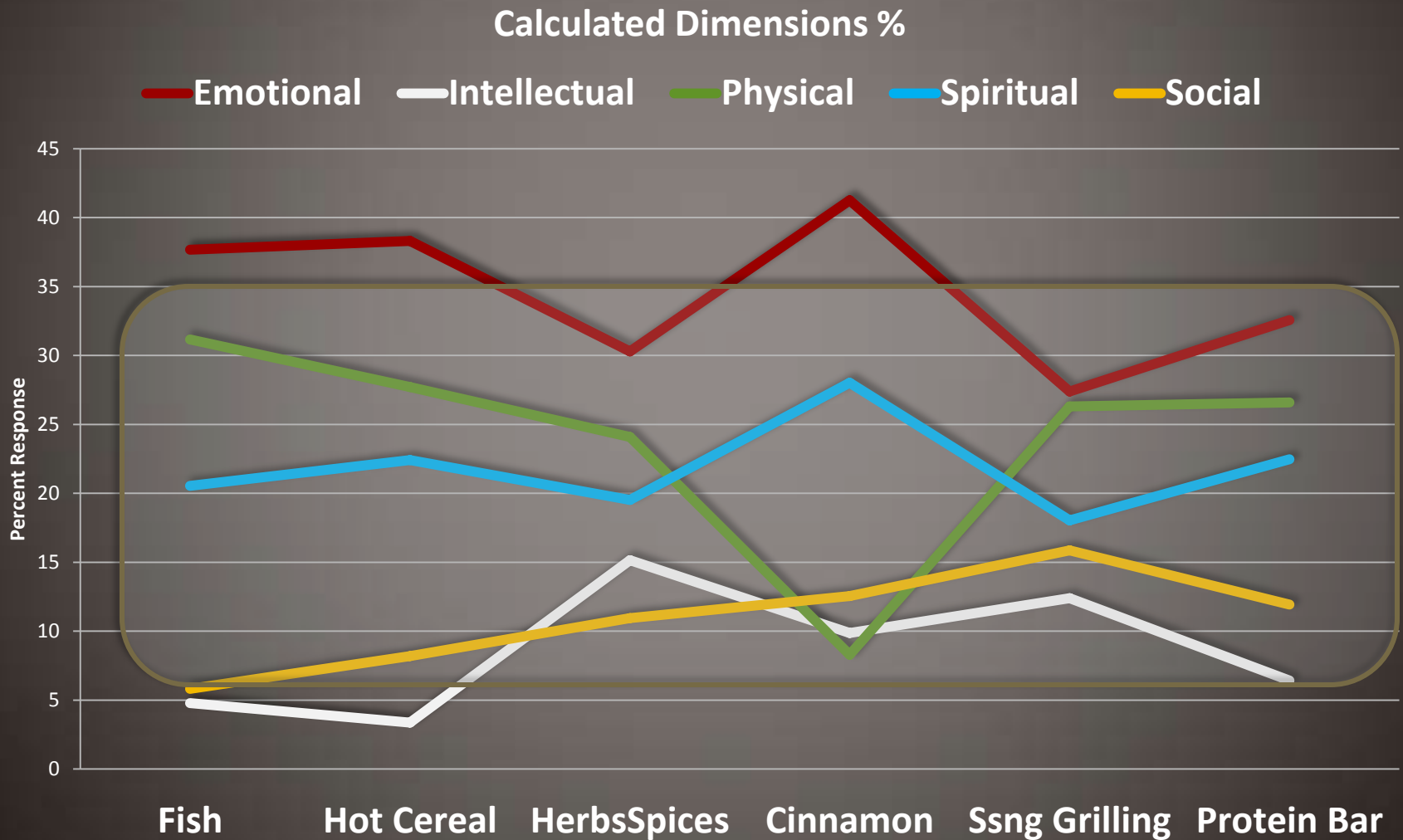
The emotion dimension has the largest contribution on the 'calculated' wellness...

Internet Survey
n ≈ 200/sample



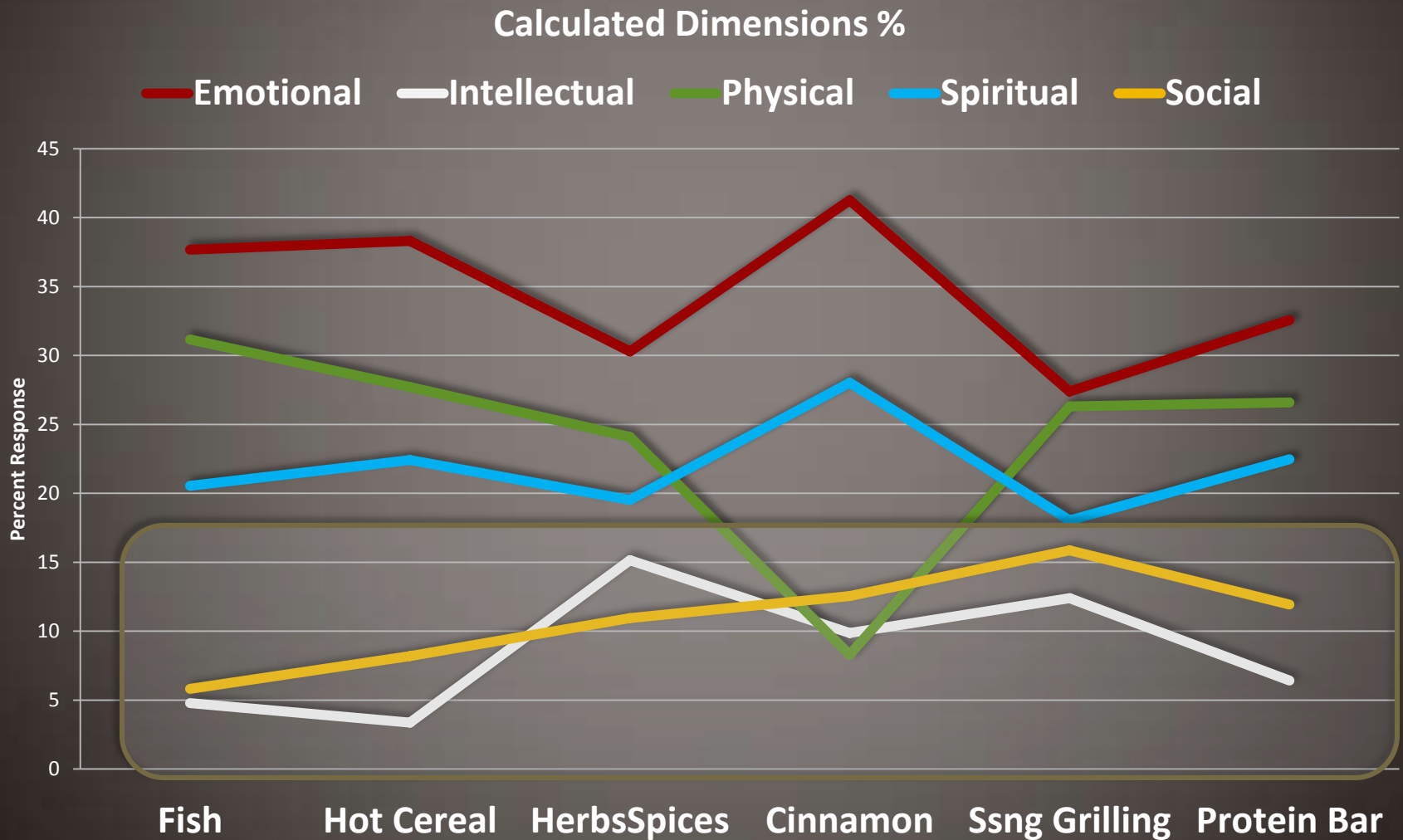
While respondents associate the physical dimension most closely to wellness, it has a lower contribution than the emotional dimension...

Internet Survey
n ≈ 200/sample



The Intellectual and social dimensions have the lowest contribution on 'calculated' wellness ...

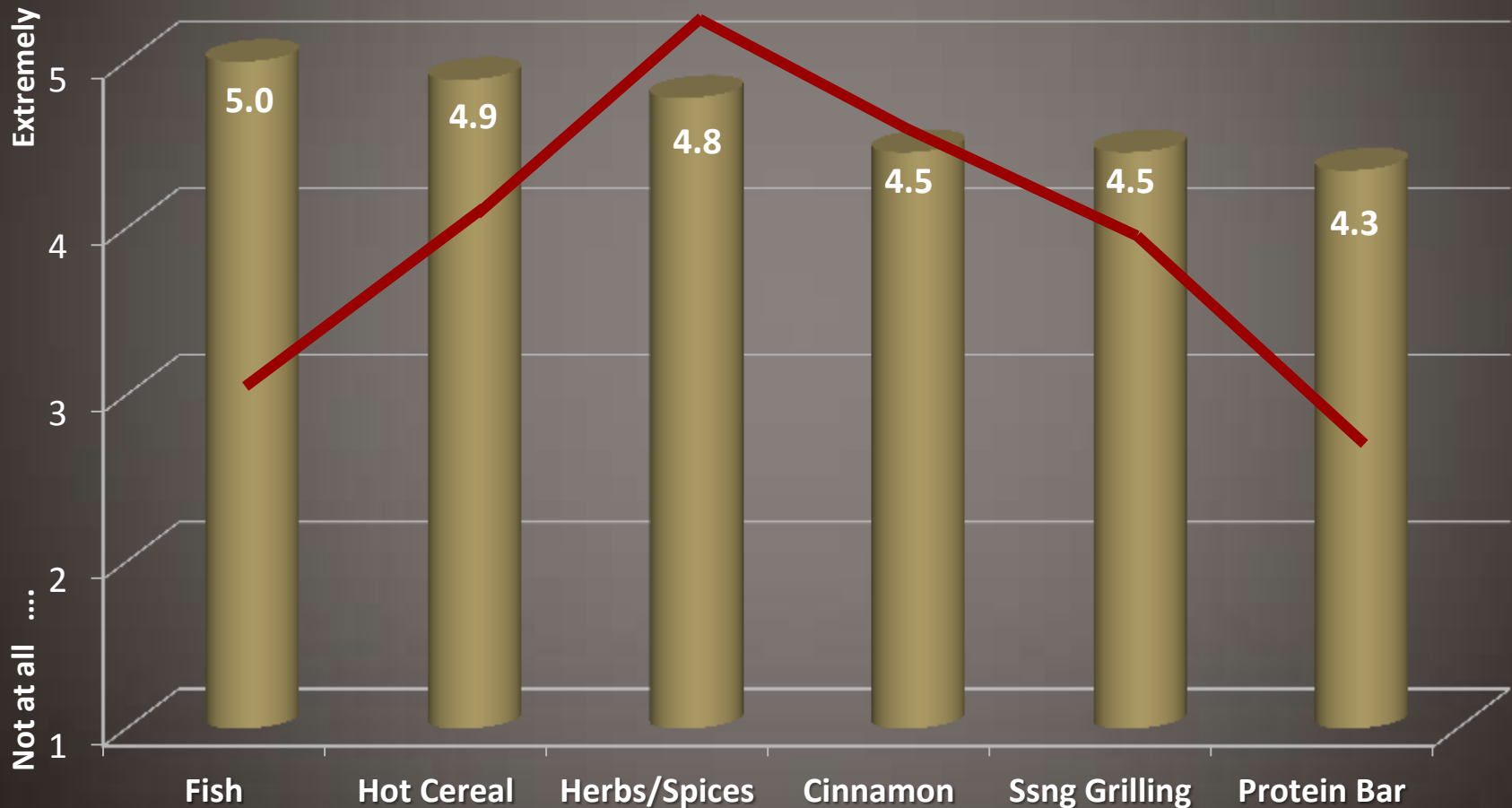
Internet Survey
n ≈ 200/sample



Calculated wellness (from terms) follows a different pattern compared to the wellness score (wellness question)...

How would you rate the impact 'this product' has on your overall wellness?

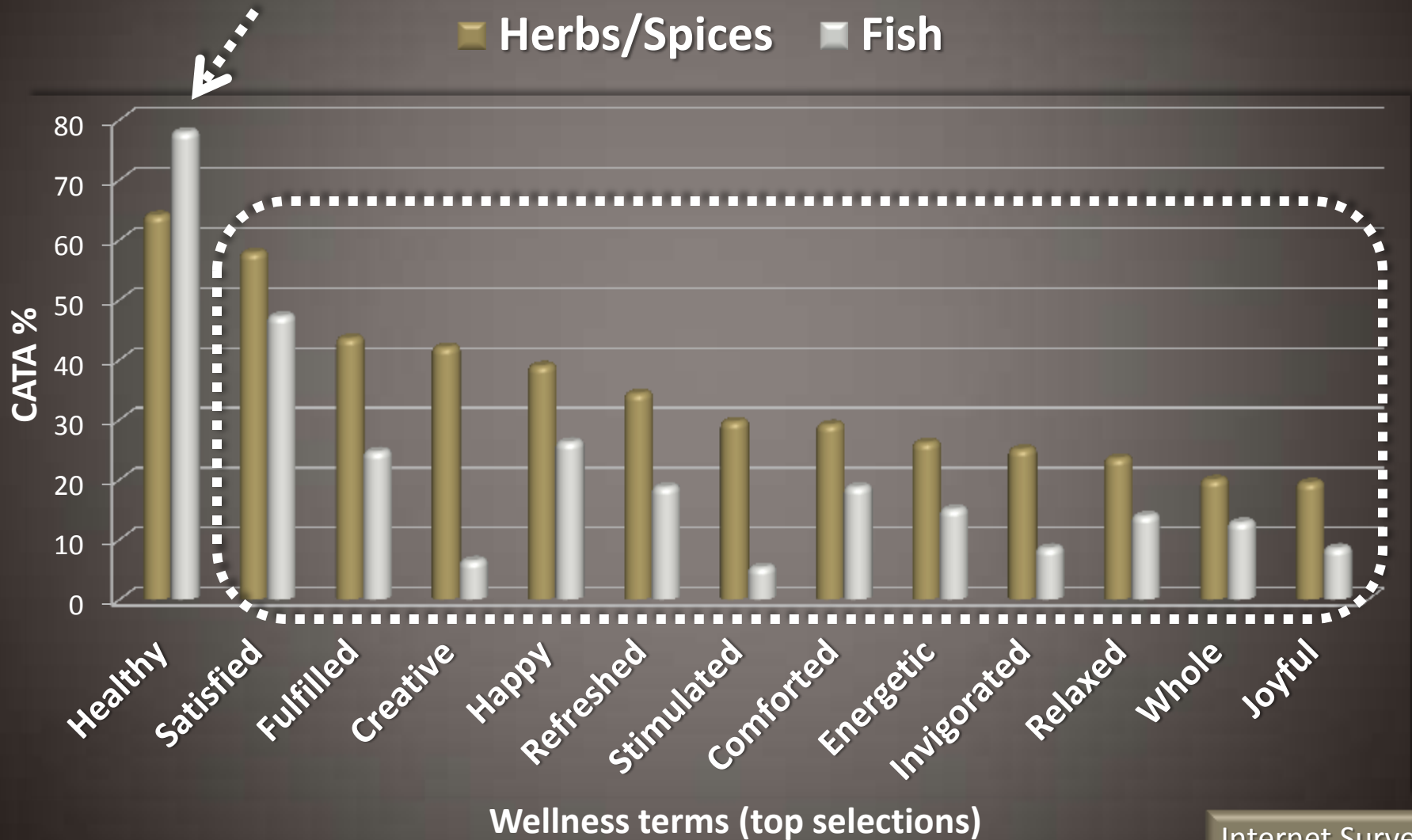
Wellness Score  vs. Calculated Wellness 



Internet Survey
n ≈ 200/sample

Wellness terms provide understanding of the drivers of wellness...

■ Herbs/Spices ■ Fish



Internet Survey
n ≈ 200/sample

Summary

- ⌚ Wellness is a positive subjective self assessment
- ⌚ Selected 5 dimensions of wellness:
 - physical, emotional, spiritual, social and intellectual
- ⌚ Respondents have a basic understanding of wellness
- ⌚ Respondents associate 'physical and emotional dimensions' more closely to wellness
- ⌚ Questionnaire developed captures different aspects of wellness
- ⌚ Applied to aromatics (peppermint and lavender)
- ⌚ Tested with food/ingredient names and during food consumption
- ⌚ Wellness provides deeper insights into the consumer's eating experience