Theoretical underpinnings of sensory science: Risks and Benefits of bending the rules

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Why this topic?

Many sensory scientists have gained their expertise on the job without learning the theoretical underpinnings

Not all rules are equal; some are more flexible and being too rigid can lead to missed opportunities

Outline of today's Session

Theoretical basis of two rules

- Risks & Benefits

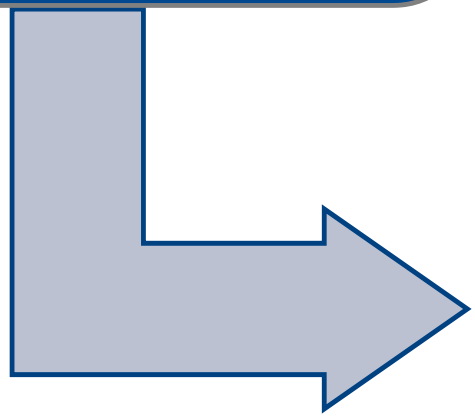
Three presentations illustrating following or breaking rules

Examples FROM the audience in a rapid-fire moderated forum

First Rule:
Never ask experts to give hedonic assessments

Trained & highly familiarized with product category

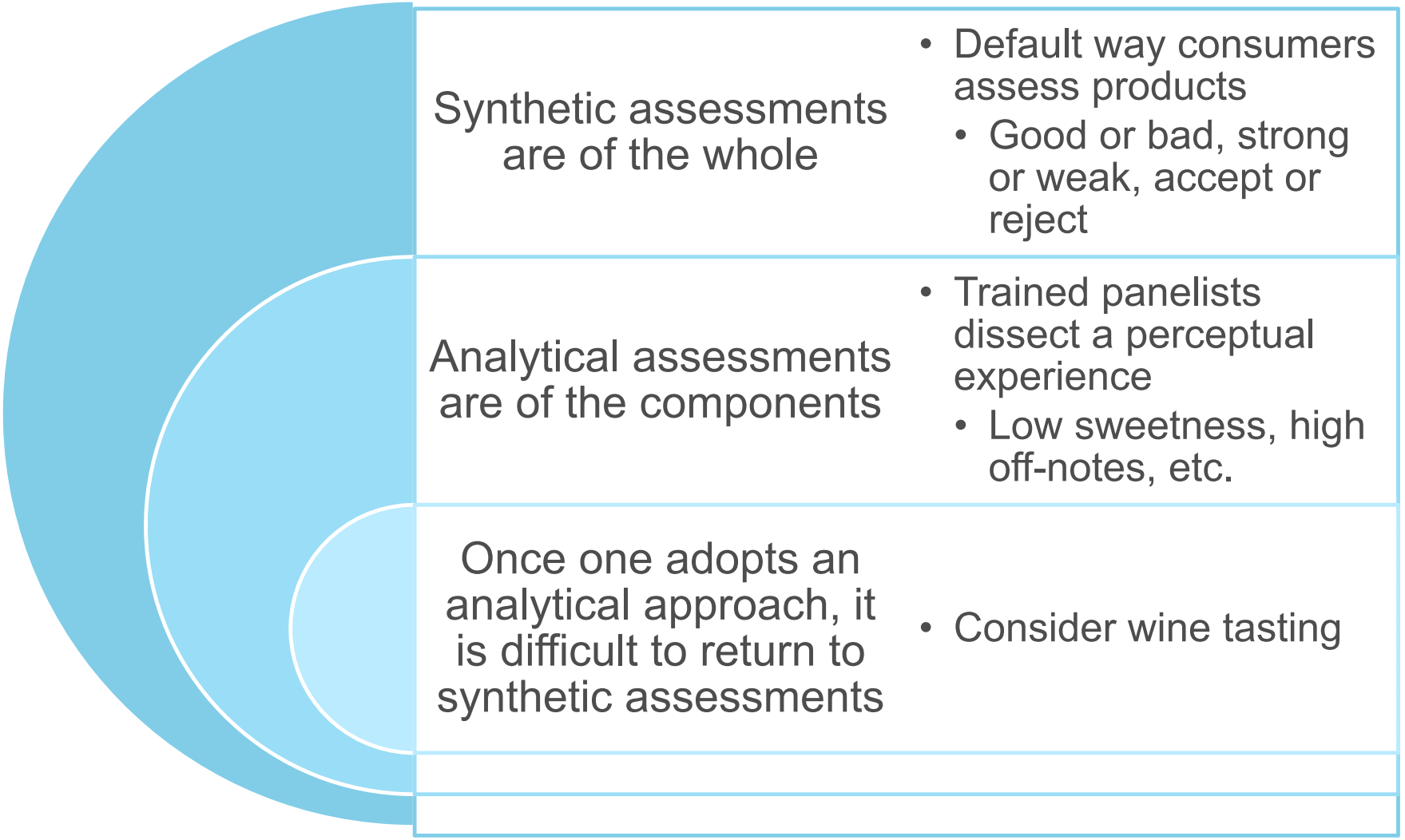
- Act as a broad-band instrument
- Detect slight nuances not obvious to consumers
- Assess the product in an analytical mindset



What's the underlying theoretical basis for this rule?

Synthetic vs. Analytical

Assessing Synthetically vs. Analytically



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BUT

Analytical assessments do not represent the consumer

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Risks that Arise when Bent

- Experts detect minor flaw and reject → missed opportunity
- Experts recognize their product and forgive flaws → consumer dissatisfaction
- As familiarity increases liking, product exposure distorts preferences relative to the competition

First Rule:
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Benefits that Arise when Bent

- Act as surrogate when consumers cannot articulate their preferences
- Can be faster to use an established panel than find the actual consumers
- Can be useful in protecting products with well-established flavor profiles

Second Rule:
Never ask consumers to judge intensities of attributes

Consumers experienced with product category

- Analytical rating not natural
- Attribute definitions unclear
- Idiosyncratic use of scales

What's the underlying theoretical basis for this rule?

Variability in Scale Usage

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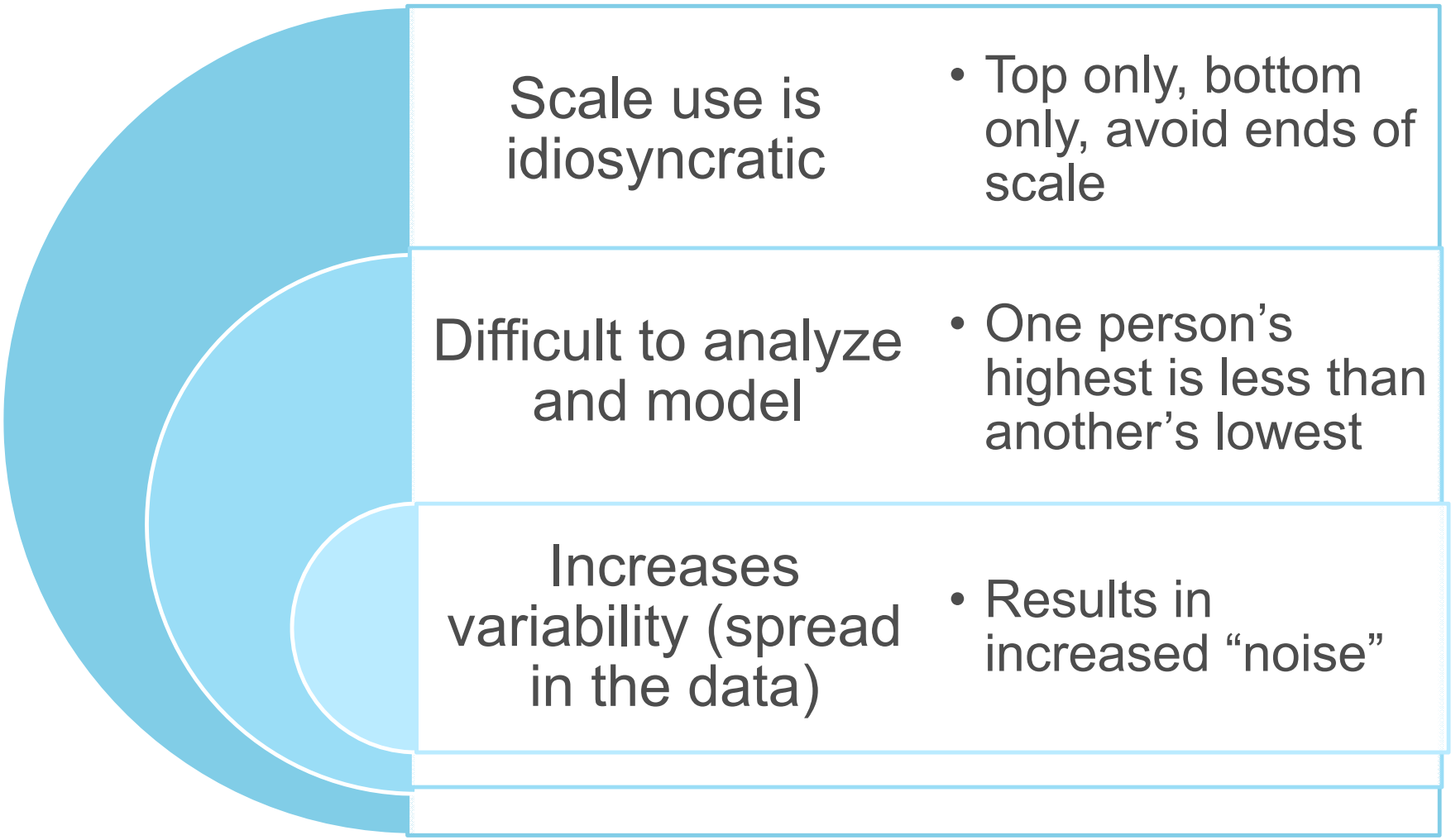

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Variability in Scale Usage

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Risks that Arise when Bent

- Confusion over meaning of the term leads to broad spread → fail to detect a true difference
- idosyncratic scale usage increases variance → fail to detect a true difference
- Specific attribute assessments will skew synthetic assessments (overall liking or preference)

Second Rule:
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Benefits that Arise when Bent

- Can “skip” a step, potentially saving time and money
- Can determine if consumers can detect changes in an attribute

Summary

Not all rules are relevant

Consider each “rule”

- Relevance of theoretical basis
- Risk-Benefits

Keep thinking!