## Less is More (Natural):

## The Impact of the Number of Ingredients on Consumers' Perceptions and Preferences

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- Framing a product with the same number of ingredients as having fewer ingredients increases consumers' interest (Studies 1A, 1B, and 7).
- This occurs because consumers view products with fewer ingredients as more natural. The belief that a product with fewer (vs. more) ingredients is more natural persists even when all ingredients in both products are explicitly natural or organic (Studies $2-7$ )
- Consumers who have higher (vs. lower) concern for naturalness are more likely to choose a product with fewer ingredients. (Study 8)

- Theoretical Motivation: Naturalness research has focused on the types of ingredients (e.g., GMO, artificial flavorings) and processes (e.g., blending). Are they exhaustive in explaining naturalness?
- Practical Motivation: Recently, brands are launching products with an emphasis on how many ingredients they used in the product. Haagen-Dazs Five is a good example. Is this framing strategy effective?

STUDY 1A - Do consumers prefer a product
highlighting the number of ingredients?

- In Study 1A and 1B, we partnered with real brands and ran Facebook $A / B$ tests to see whether ads framed as having fewer ingredients increases consumers' interest.
- We found a higher click rate when the ad highlights how many ingredients they used in the product.


STUDY 1B - Do consumers prefer a product framed as having "few" (vs. "more") ingredients?

- We found a higher click rate when the same product is framed as having "few" ingredients.


Click Through Rate $=3.07 \%$

STUDIES 2-6 - Demonstrating a heuristic of Fewer ingredients = More Natural

- Participants reported relative naturalness between two products on a bipolar scale. We tested against the mid point (4). All ingredients were counterbalanced.


## "Which yogurt do you think is more natural?"



STUDY 7 - Naturalness perceptions mediate the effect of few framing

- We replicate this effect with purchase likelihood using the stimuli from Study 1B with the M-Turk sample and find the perceptions of naturalness mediate the effect.
$b=.42, \mathrm{SE}=.20$,
$\mathrm{t}(335)=2.16, p=.03$


## Naturalness Perception

 Indirect effect =.14 $95 \% \mathrm{Cl}=[.01, .29]$Likelihood of purchase

STUDY 8 - The effect is moderated by consumers' attitudes towards naturalness

- Participants reported their concern for naturalness (Siegrist et al. 2008) and made an incentivecompatible choice between two cookies ( 5 vs. 7 ingredients) from Etsy.



## Ultimate Chocolate chip cookies

## 7 ingredients:

Flour, sugar, salt, eggs, butter,
chocolate, vanilla

## Double Stuffed chocolate chip cookies

 5 ingredients:Flour, sugar, chocolate, eggs,
butter

- A logit regression analysis showed that those who have higher (vs. lower) concern for naturalness were more likely to choose the five-ingredients (i.e., fewer) chocolate chip cookie.


The number of ingredients is an important factor that consumers consider in their decision making.

- Specifically, few-ingredients framing is more effective than more-ingredients framing.
- A product with fewer ingredients is perceived as more natural than that with more ingredients.
- The effect of the number of ingredients on perceived naturalness is robust across different categories (e.g., yogurt, coffee origin, juice, ice cream, chocolate, vitamin gummies, chocolate chip cookies).
- The effect alters consumers' decision making.

