

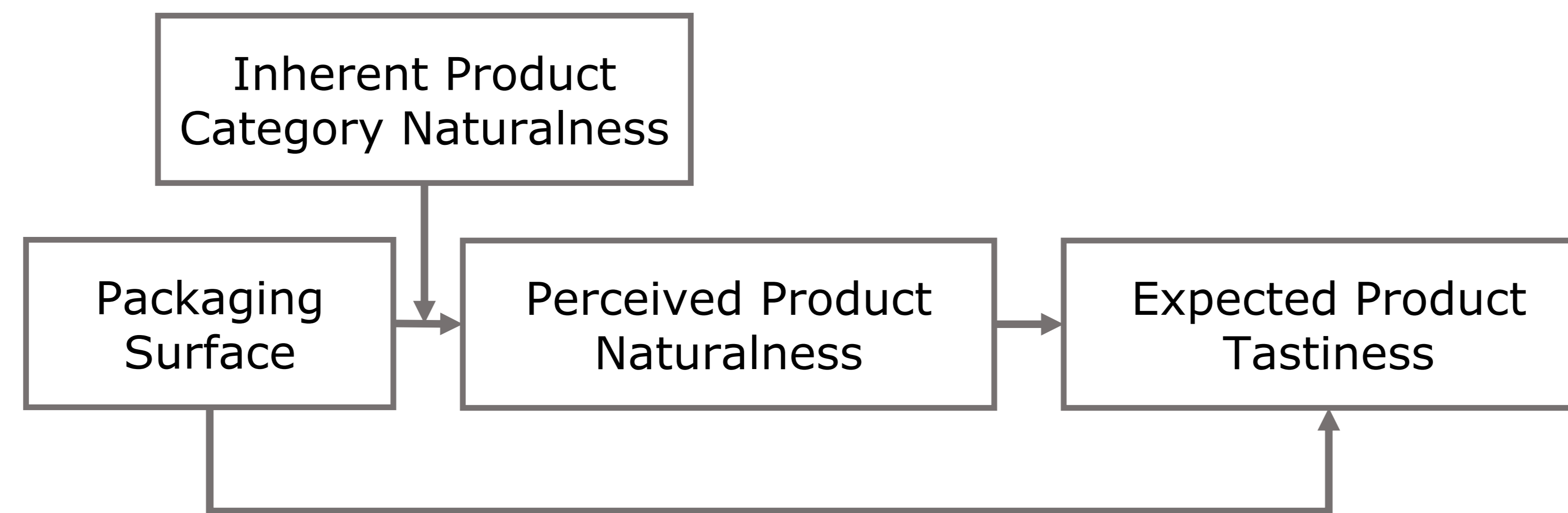
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ABSTRACT

In two experiments we show that the surface structure of packaging may serve as an external cue about the naturalness of the packaged product. Products in matte packaging are perceived to be more natural than products in glossy packaging. The effect is particularly strong among products low in inherent naturalness. Packaging-induced perceptions of product naturalness, in turn, increase expected product tastiness. The effect holds regardless of whether the packaging is touched or not.

BACKGROUND

- Matte surfaces reflect light differently than glossy surfaces and are typical for organic materials (e.g. paper, clay) (Nayar & Oren, 1995; Karana, 2012)
- Packaging with matte or glossy surfaces serves as product cue (c.f. Richardson, et al., 1994)



Stimuli Study I



Stimuli Study II

STUDY I: KETCHUP

Method: 2 (surface: matte vs. glossy) x 2 (touch: yes vs. no) between subjects design (n=136)

Results:

Two-way ANOVA on perceived product naturalness

- Main effect of surface ($M_{matte}=4.5$, $M_{glossy}=4.1$; $F(1,132)=26.71$, $p<.001$)
- No main effect of touch, no interaction effect

Mediation analysis

- Indirect effect of surface on expected tastiness through perceived naturalness ($CI_{95}[-1.00,-0.37]$)

Selected References:
Karana, E. (2012). Characterization of 'natural' and 'high-quality' materials to improve perception of bio-plastics. *Journal of Cleaner Production*, 37, 316-325.
Nayar, S. K., & Oren, M. (1995). Visual appearance of matte surfaces. *Science*, 267(5201), 1153.
Richardson, P. S., Dick, A. S., & Jain, A. K. (1994). Extrinsic and intrinsic cue effects on perceptions of store brand quality. *The Journal of Marketing*, 58(4), 28-36.

STUDY II: DRINKS

Method: 2 (surface: matte vs. glossy) x 2 (category: natural iced tea vs artificial soda) between subjects design (n=240)

Results:

Two-way ANOVA on perceived product naturalness

- Main effect of product category ($M_{tea}=3.3$, $M_{soda}=2.6$; $F(1,236)=17.28$, $p<.001$)
- No main effect of surface
- Interaction effect ($F(1,236)=4.11$, $p=.044$)
 - Artificial soda: matte → more natural
 - Natural tea: no effect

Moderated mediation analysis

- Product category moderated the effect of surface on perceived naturalness and expected tastiness ($b=0.24$, $CI_{95}[0.02,0.53]$)
- Indirect effect of surface on expected tastiness through perceived naturalness for soda ($CI_{95}[-0.37,-0.02]$), but not for tea ($CI_{95}[-0.10,0.26]$)

CONCLUSION

- Matte packaging is perceived to contain more natural food than glossy packaging
- Packaging-induced perceptions of naturalness lead people to expect food to be tastier
- The effect is moderated by the inherent naturalness of the product category, such that only relatively artificial food is perceived to be more natural when the packaging is matte.