

# **Strategies to improve the Willingness to Taste: the moderating role of Reward Sensitivity**

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# Introduction

- Childhood obesity
- Strategies to increase intake & liking of healthy food
  - E.g. Repeated exposure
    - Tasting is necessary
- Current research
  - Strategies to Improve Willingness to Taste (WtT)
  - Individual factors
    - Reward Sensitivity



# Design

- 161 toddlers ( $M: 4.54; SD: 1.07$ )
- Exposure strategy:
  - Exposure Only (Control condition)
  - Modeling
  - Reward
  - Encouragement
- Dependent variable
  - WtT (Tasted immediately/Hesitated to Taste/Did not taste)
- Continuous Predictor
  - RS (Parental Scales of Children's BIS/BAS)
- Control variables
  - Degree of hunger (Not hungry at all/A little hungry/Very hungry)
  - Age
  - Sex

## Hypotheses

- WtT in Reward, Encouragement, Modeling > WtT in Exposure only
- RS as moderator in Reward Condition:
  - Children with a high RS are more Willing to Taste compared to children with a low RS

## Analyses & Results

- Reliability analysis on the BAS scales
  - BAS Reward Responsiveness (Cronbachs  $\alpha = .62$ )
  - BAS Fun Seeking (Cronbachs  $\alpha = .51$ )
  - BAS Drive (Cronbachs  $\alpha = .84$ )
  - BAS Total (Cronbachs  $\alpha = .81$ )
- Multinomial Logistic Regression

	Tasted immediately	Hesitated to taste
	Odds Ratio	
Age	<b>2.53***</b>	<b>2.41***</b>
Sex		
- Male	<b>.22**</b>	<b>.24**</b>
- Female	.	.
Degree of hunger		
- Not hungry at all	.60	.92
- A little hungry	4.21	3.09
- Very hungry	.	.
BAS Drive	.42	.89
Exposure strategies		
- Modeling	3.61	<b>9.02**</b>
- Reward	<b>4.67*</b>	<b>10.71**</b>
- Encouragement	7.61	<b>18.35**</b>
- Exposure Only	.	.
Exposure strategies x BAS drive		
- Modeling x BAS drive	2.18	.70
- Reward x BAS drive	<b>5.50**</b>	1.66
- Encouragement x BAS drive	.23	<b>.06**</b>
- Control x BAS drive	.	.

Note:  $R^2 = .28$  (Cox & Snell),  $.33$  (Nagelkerke). Model  $\chi^2 (22) = 53.26, p < .001$ . \*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < 0.1$

	Tasted immediately	Hesitated to taste
	Odds Ratio	
Age	<b>2.46***</b>	<b>2.33***</b>
Sex		
- Male	<b>.25**</b>	<b>.26**</b>
- Female	.	.
Degree of hunger		
- Not hungry at all	.70	1.03
- A little hungry	3.92	2.92
- Very hungry	.	.
BAS total	.46	.87
Exposure strategies		
- Modeling	3.25	<b>7.68**</b>
- Reward	<b>4.10*</b>	<b>9.88**</b>
- Encouragement	3.57	<b>9.68**</b>
- Exposure Only	.	.
Exposure strategies x BAS total		
- Modeling x BAS total	1.97	.89
- Reward x BAS total	<b>4.97**</b>	1.81
- Encouragement x BAS total	.33	<b>.11*</b>
- Control x BAS total	.	.

Note:  $R^2 = .25$  (Cox & Snell),  $.29$  (Nagelkerke). Model  $\chi^2 (22) = 46.36, p = .002$ . \*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < 0.1$

# Conclusion

- Modeling, Reward and Encouragement are effective strategies to improve WtT
- Moderating role of RS
  - Reward is effective with high RS children
  - Encouragement is effective with low RS children
- Strengths & Limitations
- Future research
  - Moderating role of RS in learning to like disliked vegetables?

# Thank you for your attention!

## Questions?

