

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

Laura Vandeweghe, Sandra Verbeken, PhD, Ellen Moens, PhD,
Leentje Vervoort, PhD, Prof. dr. Caroline Braet

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	2.53***	2.41***
Sex		
- Male	.22**	.24**
- 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	9.02**
- Reward	4.67*	10.71**
- Encouragement	7.61	18.35**
- Exposure Only	.	.
Exposure strategies x BAS drive		
- Modeling x BAS drive	2.18	.70
- Reward x BAS drive	5.50**	1.66
- Encouragement x BAS drive	.23	.06**
- 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	2.46***	2.33***
Sex		
- Male	.25**	.26**
- 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	7.68**
- Reward	4.10*	9.88**
- Encouragement	3.57	9.68**
- Exposure Only	.	.
Exposure strategies x BAS total		
- Modeling x BAS total	1.97	.89
- Reward x BAS total	4.97**	1.81
- Encouragement x BAS total	.33	.11*
- 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
- Future research
 - Moderating role of RS in learning to like disliked vegetables?

Thank you for your attention!

Questions?

