## **Supplementary Information**

Manipulation of food related risk in Study 1



*Figure SI 1*: Translation: "You will now be shown 12 food items, including chocolate bars, muesli bars and crackers. Some of these food items are produced using biotechnology, while others are produced using conventional methods. Each product is shown without packaging. Biotechnology foods differ from conventional foods in several respects. The table below lists the most important benefits and disadvantages of biotechnology foods. Upper left: Benefits: A higher level of satiety is achieved than from equivalent conventional foods. Lower left: Disadvantages: 1 out of 500 may be subjected to a temporary allergic reaction. Upper right: Some degree of satiety is achieved. Lower right: No risk of allergic reactions.

Manipulation of non -food related risk in Study 1



*Figure SI 2*: Translation: "You will now be shown 12 products, including toothpaste, mouthwash and hand soap. Some of these products are produced using nanotechnology, while others are produced using conventional methods. Each product is shown without packaging. Products manufactured using nanotechnology differ from conventional products in several respects. The table below lists the most important benefits and disadvantages of nanotech products. Upper left: Benefits: A higher level of cleanness is achieved than with the similar conventional products. Lower left: Disadvantages: 1 out of 500 may be subjected to a temporary allergic reaction. Upper right: Some degree of cleanness is achieved. Lower right: No risk of allergic reactions.

Table SI 1

## Cross Validation Study 1

	Root Mean Square Error		
Models	Training	Test	
WTP = Glucose + (1 ID) + (1 prodID)	3.387036	4.091270	
WTP = Glucose + Risk + (1 ID) + (1 prodID)	3.369168	4.091486	
WTP = Risk + (1 ID) + (1 prodID)	3.369165	4.091726	
WTP = (1 ID) + (1 prodID)	3.387033	4.092173	
WTP = Glucose + Food + (1 ID) + (1 prodID)	3.387200	4.092909	
WTP = Glucose+Risk+Food+ (1 ID)+(1 prodID)	3.369328	4.093077	
WTP = Risk + Food + (1 ID) + (1 prodID)	3.369325	4.093328	
WTP = Food + (1 ID) + (1 prodID)	3.387197	4.093824	
WTP = Glucose*Risk + (1 ID) + (1 prodID)	3.369135	4.095623	
WTP = Glucose*Food + (1 ID) + (1 prodID)	3.386356	4.099073	
WTP = Glucose*Risk*Food+ (1 ID) + (1 prodID)	3.367640	4.105291	
WTP = Glucose + Food + (1 ID)	3.574428	4.241667	
WTP = Food + (1 ID)	3.574424	4.241960	
WTP = Risk + Food + (1 ID)	3.558398	4.242685	
WTP = Glucose + Risk + Food + (1 ID)	3.558401	4.242911	
WTP = Glucose*Food + (1 ID)	3.573629	4.248194	
WTP = Glucose + (1 ID)	3.619023	4.251798	
WTP = (1 ID)	3.619019	4.252021	
WTP = Risk + (1 ID)	3.603189	4.253281	
WTP = Glucose + Risk + (1 ID)	3.603193	4.253650	
WTP = Glucose*Risk*Food + (1 ID)	3.556905	4.256297	
WTP = Glucose*Risk + (1 ID)	3.603125	4.258555	

	WTP			
Predictors	Estimates	CI	р	
(Intercept)	7.60	6.56 - 8.64	<0.001	
Glucose	-0.89	-2.06 - 0.27	0.131	
Risk	0.59	0.04 - 1.13	0.035	
Food	-1.37	-2.430.30	0.012	
Glucose * Risk	-0.07	-0.84 - 0.71	0.867	
Glucose * Food	0.20	-0.57 - 0.98	0.608	
Risk * Food	0.19	-0.58 - 0.96	0.633	
Glucose * Risk * Food	0.18	-0.92 - 1.28	0.748	
Random Effects				
$\sigma^2$	11.94			
τ <sub>00</sub> id	6.95			
$\tau_{00 prodID}$	1.31			
ICC	0.41			
N ID	102			
N prodID	24			
Observations	2448			
Marginal R <sup>2</sup> / Conditional R <sup>2</sup>	0.029 / 0.4	26		

Table SI 2Full model of treatment and conditions effect on Willingness to pay

Table SI2 reports the full model of the different conditions effect on willingness to pay.

	Brier Score		
Models	Training	Test	
Risk = GlucoGroup + (1 ID) + (1 GambleNr)	0.21821	0.24829	
Risk = GlucoGroup*Food+ (1 ID) + (1 GambleNr)	0.21814	0.24833	
Risk = GlucoGroup+Food+ (1 ID) + (1 GambleNr)	0.21821	0.24834	
Risk = (1 ID)+(1 GambleNr)	0.21821	0.24836	
Risk = Food+(1 ID)+(1 GambleNr)	0.21821	0.24841	
Risk = GlucoMeasure + (1 ID) + (1 GambleNr)	0.21821	0.24849	
Risk = GlucoMeasure +Food+(1 ID)+(1 GambleNr)	0.21821	0.24854	
Risk = GlucoMeasure *Food+(1 ID)+(1 GambleNr)	0.21821	0.24861	
Risk = GlucoDiff + (1 ID) + (1 GambleNr)	0.21821	0.24862	
Risk = GlucoDiff + Food + (1 ID) + (1 GambleNr)	0.21821	0.24867	
Risk = GlucoDiff *Food+(1 ID)+(1 GambleNr)	0.21817	0.24871	
Risk = GlucoGroup + (1 ID)	0.22147	0.24986	
Risk = GlucoGroup*Food+(1 ID)	0.22141	0.24991	
Risk = GlucoGroup+Food+(1 ID)	0.22147	0.24991	
Risk = (1 ID)	0.22147	0.24994	
Risk = Food+(1 ID)	0.22147	0.24999	
Risk = GlucoMeasure + (1 ID)	0.22147	0.25007	
Risk = GlucoMeasure + Food+(1 ID)	0.22147	0.25012	
Risk = GlucoMeasure *Food+(1 ID)	0.22146	0.25019	
Risk = GlucoDiff + (1 ID)	0.22147	0.25020	
Risk = GlucoDiff + Food + (1 ID)	0.22147	0.25025	
Risk = GlucoDiff *Food + (1 ID)	0.22143	0.25029	

Table SI 3Cross Validation for study 2 with participants with high blood glucose for placebo excluded

Brier Score Models Training Test Risk = GlucoMeasure + (1|ID) + (1|GambleNr)0.21868 0.24828 Risk = GlucoMeasure + Food + (1|ID) + (1|GambleNr)0.21868 0.24832 Risk = GlucoGroup + (1|ID) + (1|GambleNr)0.21868 0.24833 Risk = GlucoGroup+Food + (1|ID) + (1|GambleNr)0.21868 0.24837 Risk = GlucoMeasure \*Food + (1|ID) + (1|GambleNr)0.21868 0.24838 Risk = GlucoGroup\*Food + (1|ID) + (1|GambleNr)0.21865 0.24839 Risk = (1|ID)+(1|GambleNr)0.21868 0.24840 Risk = Food+(1|ID)+(1|GambleNr)0.21867 0.24844 Risk = GlucoDiff + (1|ID) + (1|GambleNr)0.21868 0.24863 Risk = GlucoDiff+Food+(1|ID)+(1|GambleNr)0.21867 0.24867 Risk = GlucoDiff\*Food + (1|ID) + (1|GambleNr)0.21863 0.24869 Risk = GlucoMeasure + (1|ID)0.22197 0.24996 Risk = GlucoMeasure +Food+(1|ID) 0.22196 0.25000 Risk = GlucoGroup + (1|ID)0.22197 0.25001 Risk = GlucoGroup+Food + (1|ID)0.22196 0.25005 Risk = GlucoMeasure \*Food + (1|ID)0.22196 0.25006 Risk = GlucoGroup\*Food + (1|ID)0.22193 0.25007 Risk = (1|ID)0.22196 0.25008 Risk = Food+(1|ID)0.22196 0.25012 Risk = GlucoDiff + (1|ID)0.22196 0.25031 Risk = GlucoDiff+Food+(1|ID)0.22196 0.25035 Risk = GlucoDiff\*Food + (1|ID)0.22191 0.25037

Table SI 4 Cross Validation for study 2 with participants with high blood glucose for placebo included in glucose group

## Table SI 5

Full model of treatment and conditions effect on risky choice. First model is with the cleaned
data. Second model is with participants with a blood glucose level higher than 5.5 mmol/l
included in the treatment condition

	risk			risk				
Predictors	Odds Ratios	CI	р	Odds Ratios	CI	р		
(Intercept)	1.18	0.97 – 1.45	0.101	1.18	0.97 - 1.45	0.099		
GlucoGroup	0.87	0.67 - 1.12	0.282	0.84	0.65 - 1.07	0.155		
Food	1.09	0.98 - 1.22	0.125	1.09	0.98 - 1.22	0.125		
GlucoGroup * Food	0.87	0.75 - 1.01	0.069	0.90	0.77 - 1.04	0.142		
<b>Random Effects</b>								
$\sigma^2$	3.29			3.29				
$ au_{00}$	0.53 <sub>ID</sub>			0.52 ID				
	0.05 GambleNr			0.05 GambleNr				
ICC	0.15			0.15				
Ν	150 <sub>ID</sub>			162 id				
	41 GambleNr			41 GambleNr				
Observations	12300			13284				
Marginal R <sup>2</sup> / Conditional	0.003 / 0.154	1		0.004 / 0.152	2			
$\mathbb{R}^2$								

Table SI5 shows the full model for Study 2. The first column of effects are with the cleaned data whereas the last one is the robustness check where high level blood glucose individuals are moved to the treatment condition. This inclusion of the 12 individuals that were deleted from the first analysis does not change the result in any major way.

## Table SI 6Wilke questionnaire factor loadings

Latent Factor	В	SE	ρ	β
Betweengroup competition				
Sitting in the section for fans of the opposing team with a group of	0 420	0 167	0.010	0 224
friends while wearing your team's colors.	0.429	0.107	0.010	0.224
Adamantly defending the honor of your local team against a fan	0.619	0 175	0.000	0.250
from a different sporting team, even if it may cause a fight.	0.018	0.175	0.000	0.550
Starting a rivalry with students from another school in one of your	0 691	0 177	0.000	0.413
extracurricular activities	0.071	0.177	0.000	0.415
Withingroup competition				
Trying to take a leadership role in any peer group you join.	0.799	0.161	0.000	0.498
Arguing with members of a group project over what should be done.	0.373	0.148	0.012	0.248
Attempting to influence people in your social group to advance your	0 976	0 186	0.000	0 540
own agenda.	0.970	0.100	0.000	0.510
Status power				
Blackmailing your opponent to win an election.	0.984	0.134	0.000	0.652
Driving too fast to appear strong and in control to your peers.	0.470	0.137	0.001	0.306
Telling lies to the leader about a teammate to appear more	0.628	0.103	0.000	0.528
trustworthy than the other person (i.e., to get ahead).				
Environmental exploration			0 0 0 0	
Swimming far out from shore to reach a diving platform.	1.171	0.179	0.000	0.568
Hiking on a mountain trail with a beautiful view but with a high	1.293	0.164	0.000	0.693
chance of a landslide.				
Going on an expedition into a deep forest where there will be no one	1.407	0.174	0.000	0.711
else around.				
Food selection	0 770	0 152	0.000	0 4 4 9
Planting your own garden to grow your own truit and vegetables.	0.//0	0.132	0.000	0.448
Si sufficienti si successi successi si suc	1.115	0.180	0.000	0.300
significantly increasing your weekly lood on to buy healthy organic	1.534	0.183	0.000	0.876
Food acquisition				
Not hailing or filtering water from a questionable source before				
drinking it	0.540	0.220	0.014	0.309
Eating at a restaurant where your friend got food poisoning	0 444	0 207	0.032	0 244
Eating a niece of food that has fallen on the floor	1 4 2 8	0.207	0.002	0.244
Parent offsnring conflict	1.120	0.157	0.002	0.010
Talking your parents into giving you weekly allowance money	1,263	0.163	0.000	0.721
Bugging your parents for money to go out with friends until they	0.00	0.100	0.000	0.721
finally give in.	0.826	0.134	0.000	0.558
Asking your parents to get their old car when they get a new one	0.075	0.1=2	0.000	0 - 1 -
(instead of giving it to your siblings).	0.977	0.173	0.000	0.511
Kinship				
Risking your life to drag your parents from a burning building.	0.450	0.127	0.000	0.365
Staying up all night to help your sibling with a difficult school	0.204	0 1 2 1	0.020	0.000
project.	0.304	0.131	0.020	0.233
Donating a kidney to your sibling.	1.118	0.221	0.000	0.731
Mate attraction				
Taking part in sexual acts that you may not usually do to look more	0 (21	0 1 6	0.000	0 2 4 2
sexually appealing to the opposite sex.	0.621	0.165	0.000	0.342
Casually dating more than one person at a time.	1.324	0.179	0.000	0.654

Having a consistent sexual partner with whom you are not romantically involved.	1.446	0.182	0.000	0.712
Mate retention				
Not putting in the effort to fulfil the requests of your significant other, such as remembering to call them when they ask you to.	0.621	0.149	0.000	0.376
Dumping the person you have been seeing when they mention commitment.	0.862	0.135	0.000	0.577
Spending the night with an attractive person while vacationing without your significant other.	0.856	0.145	0.000	0.530

Note: B = Unstandardized coefficients, SE = standard error,  $\rho$  = p-value,  $\beta$  = standardized coefficients