Registered report

Sugary drinks devaluation with response training helps to resist their ~~consumption~~consumption.

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Abstract

Food response training has been shown to reduce the reported value of palatable food items. These approaches may thus help to reduce unhealthy (over)consumption behaviors and its related diseases. Yet, whether and how training-induced devaluation effects translate into reductions in the target items (over)consumption remains unclear.

We will address this issue by testing whether a combined food Go/NoGo and cue-approach training targeting the participants' favorite sugary drinks can improve how many days they resist drinking them with a double-blind randomized controlled trial. We will further examine the association between the devaluation of the target food cues and the real-world effect of the training on adherence to the restrictive diet, and the impact of the length of the training intervention.

Introduction

Unhealthy consumption behaviors contribute to the development of most non-communicable diseases. In particular, overconsumption of energy-dense but nutrient-poor foods leads to diseases ranging from diabetes to cancer[1]. Interestingly, recent evidence suggests ~~that~~ these practices of tasks involving the execution or inhibition of motor responses to food cues can modulate~~s~~ their self-reported value~~,~~ and ~~-~~their consumption[2,3].

In the food Go/NoGo (GNG) task, participants have to respond as fast as possible to healthy food cues, while withholding their responses to target unhealthy food cues. ~~Because of the frequent and rapid responses demanded on "Go" healthy items, the loading of motoric inhibition becomes involved in the successful withholding of "NoGo" trials (REF). By repeatedly training on this task~~The practice of these tasks ~~, studies~~ have been shown to ~~observed decreased~~reduce the self-reported valuation of the target NoGo unhealthy items[4–8], ~~and~~as well as their ~~decreased~~ in-lab[9–11] and self-reported consumption[6,12,13~~14,15~~] ~~.~~ ~~[2,3]~~ (s~~S~~ee ~~The repeated inhibition of motor response to unhealthy cues is thought to reduce their reward value to solve the conflict between the task demand for response withholding and their tendency to respond to palatable cues~~[14,15] for discussions on the underlying cognitive mechanisms of action)~~. Other accounts suggest that the development of inhibition reflex to the unhealthy cues could also contribute to the reduction in valuation and consumption~~~~[7,8]~~~~.~~

In the Cue-Approach Training (CAT), participants have to respond ~~as fast as possible~~ to items when a Go-cue is displayed. Importantly, the Go~~-~~-cue appears after the item, and the item disappears rapidly after the presentation of the Go-cue ~~and before it disappears~~[16]. ~~This~~The practice of this task has been shown to increase the self-reported value of the trained Go items through preference tasks[17,18], snack auctions[16], ~~and~~as well as their consumption during bogus taste tests[19] ~~.~~(see [20] for a discussion on the

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supporting cognitive mechanisms) The practice of this task may modulate the valuation of the target items by developing attentional biases toward or away from them[20]. There is, however, little evidence supporting real-life effects of cognitive bias modification (though see the work on alcohol approach bias modification in alcoholic patients[21]).

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Our previous work has demonstrated that the combination of these task in a response training intervention robustly reduces the self-reported explicit liking of the targeted unhealthy food cues, alongside a potential increase in the healthy items valuation and a decrease in the unhealthy items self-reported consumption[21,22].

In contrast to conventional reflective approaches to reduce overconsumption behaviors primarily targeting deliberate processes[26,27], these food response trainings target automatic reward processes. As a result, these approaches do not require acquiring dietary knowledge or exerting effortful self-control overeating impulses and may thus represent an advantageous complementary approach to reduce the unhealthy overconsumption behaviors[26].

However, whether and how response training intervention impact consumption behaviors remain largely unresolved. As stated above, Ccurrent evidence for a reduction in food consumption after food response training relies either on self-reported consumption outcomes such as food frequency questionnaires or food journals[6,12,13], or on laboratory tasks such as food buffets or bogus taste tests[9,10,23–26]. While these studies observed modulations in consumption, they do not directly demonstrate real-world effects. Indeed, the effect of food response training remains mixed on physiological parameters (e.g., BMI, body fat)[6,7,21,27–30], self-report measures are intrinsically biased because of memory and social confounds[31], and laboratory settings only partly mimic ecological situations. To our knowledge, the only study reporting real-world effects focused on eating disorder symptoms and were thus potentially confounded by the clinical condition of the population of interest[8].

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We aim to bridge this gap by testing with a double-blind randomized controlled trial whether a gamified food response training intervention combining a Go/NoGo and CAT can improve adherence to a restrictive diet focusing on the participants' favorite sugary drinks. Adherence to a restrictive diet is valuable to index the real-world effect of food response training because: i) it is easier to report and less biased by memory or the relationship with the experimenter; iii) it represents an important use-case for conditions such as diabetes or food intolerance; improving the success rate of restrictive dieting will demonstrate the relevance of such intervention as an adjuvant approach to conventional interventions in (sub-)clinical populations; and iiii) letting the participant stop their training whenever they want in a two-weeks window enables to investigate the link of the intervention's length on its real-world effect size, thereby allowing to formulate recommendations for its use in applied settings.

The intervention will be implemented in an online gamified smartphone app, to capitalize on our replicated result showing a robust 20% reduction in the valuation of the target food items[21,22]. The target items in this study are sugary drinks, an ideal target to study real-world consumption behaviors as they display highly recognizable brands with marked and stable interindividual preferences[32], and are rarely shared with peers.

The effect of the intervention will be contrasted with a mechanistic control group only differing in the active 'ingredient' of the training: the cue-response mapping rules will be 100% in the experimental and 50% in the control group. This contrast will allow us to control for the confounding factors developed by food cue exposure and cognitive training. We expect that: Hypothesis H1) the participants in the experimental training group will maintain more days of successful sugary drinks restrictive dieting than in the control training group; H2) that the amplitude of the reduction in the targeted items' explicit liking will be positively associated with number successful days of adherence to the diet in the experimental group; H3) that the more a participant in the experimental group will train, the larger the effect of the intervention will be on their dieting behavior.

A detailed design table detailing the hypotheses and their rationales can be found at the end of the method section (Table 1).

Method and Materials

All materials, including scripts, data, and stimuli, can be accessed via and will be uploaded to our Open Science Framework (OSF) project page (view-only link: https://osf.io/s4trh/?view_only=4934c0215f2943cfb42e019792a30b53).

Sampling plan

Based on the resources at our disposal, we cannot allow to recruit more than 140 participants (70 in each group). As such, power sensitivity tests will be conducted to determine the minimal effect size detectable with our resource constraints, a power of 90%, and an alpha of 0.05 for each hypothesis (see [33] for discussion).

Our rationale for the sampling plan is to try and detect at minimum the smallest effect that would be relevant to a daily living or clinical setting, instead of searching for the minimal effect expected with the current literature. As such, when possible, the population parameters (e.g., differences in means) are used as effect sizes instead of relative indexes (e.g., Cohen's d).

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For H1, the estimated smallest effect size of interest that would be relevant to an applied setting is a difference in means of 5 days more of restrictive dieting in the experimental than control training groups, with an estimated standard deviation of 10 (Cohen's d = 0.5). A priori power sensitivity analysis using G*Power[34] shows that a Cohen's d of 0.5 (medium effect) would be the minimal statistically detectable effect sample size of 140 (70 per group) is needed to reach 90% power with an alpha of .05 for a one-sided independent t-test- with the above-mentioned parametersand this effect size. Any smaller effect will not be interpreted as relevant even if significant. Based on the large variation in dieting adherence [36]observed in the literature (e.g., [35]), observing a medium difference is enough for us to interpret such effect size as relevant in settings trying to boost the feasibility ofaiming at facilitating restrictive diets.

For H2 and H3, which only consider the experimental group, the smallest detectable effect size of interest is $r = 0.24$ (small correlation coefficient[36]) as computed by the pwr R package[37] for a one-sided correlation with the above-mentioned parameters. As we are aiming with these hypotheses to start positing recommendations for future use of food response training in applied/clinical settings, we are looking for convincing effect sizes. We consider that the coefficient should be of at least $r \geq 0.4$ to consider the association between the decrease in explicit liking and dieting behavior We arbitrarily set a minimal coefficient to be at least moderate (i.e., $r \geq 0.4$) for us to consider as relevant a positive link between the decrease in explicit liking and dieting behavior (H2) or between the length of the intervention and its effectbetween the length of the intervention and its effect (H3), as non-negligible. According to our own perception, the coefficient should be at least moderate (i.e., $r \geq 0.4$) for us to be confident in expressing a positive link between the decrease in explicit liking and dieting behavior (H2) or between the length of the intervention and its effect (H3).

The study will stop recruiting after reaching 140 participants with complete data. Because of the nature of this study, where participants are continuously recruited, some participants may still be in training after reaching the 140th complete participant, thus resulting in an eventual larger sample size.

Overall, a total of 140 participants will be needed for the analysis of H1, and 50 participants will be needed for the analyses of H2 and H3. If exclusions to comply with the positive controls reduce the sample size below these thresholds (see Statistical Analysis section), new participants will be recruited.

Recruitment and screening

Participants will be recruited via public advertisement.

We will include 18- to 45-year-old healthy individuals willing to follow a sugary drink restrictive diet. Unhealthy participants include self-report of past or current eating disorders, any visual or hearing

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disability preventing gamified training, and any olfactory or gustative impairment (including smokers consuming ≥10 cigarettes daily). We will also exclude participants with previous participation in a food executive control training study, and pregnant participants or participants planning to be pregnant.

General procedure

Participants will sign a consent form and be screened for eligibility criteria through a custom-made health questionnaire. They will then be given access to our online training software – The Diner – via an app store and fill out in-app analogue scales of items' drinking frequency and explicit liking.

They will then complete a combined gamified GNG and CAT tasks for 20 minutes per day (10min for each task), for a minimum of 7 days and a maximum of 20 days. The trained Go items will be water pictures, and the NoGo items will be only the participant's 8 most drunk sugary items. Participants have the option to stop the study at any time through an "End training" button appearing in the software after the minimum 7 days of training, which in turn blocks the game and triggers the post-training measures.

After training, participants will complete the post-training analogue scales of explicit liking and will be asked to avoid their trained sugary drinks (i.e., those selected as their most consumed) for as long as possible. Their adherence to the diet will be measured with weekly questionnaires asking if their diet was successful, and if not, the exact earliest day they again consumed one of the target sugary drinks, for a maximum of two months. A debriefing questionnaire will assess whether they consumed other types of sugary drinks as a compensatory strategy for exploratory purposes.

Stimuli

The stimuli will be sugary drinks as they have shown a robust reduction in self-reported consumption after training in our previous study[22], have marked individual preferences and their consumption is easier to track than for solid snacks.

53 pictures of sugary drinks and 7 pictures of water bottles will be used as items. They represent the most popular drinks marketed in Switzerland (they can be downloaded on our OSF page https://osf.io/s4trh/?view_only=4934c0215f2943cfb42e019792a30b53).

Analogue scales

In-app analogue scales of drinking frequency will be used to personalize the training with participants' 8 most drunk items. The question "How much do you drink this?" will be asked for all sugary drink items in a randomized order, with a scale ranging from "Never" to "Very often" (0 and 100 points respectively), with a marker in the middle (neutral 50 points). Ties during the personalization process will be broken by choosing at random.

The within-app analogue scales of explicit liking are the same as in our previous studies[21,22]. Before and after the training, participants will rate in a random sequence their 8 most drunk items as well as the water items, from 0 ('not at all') to 100 ('very much') according to the question 'Imagine drinking this, how much do you like it?'.

Training tasks

The GNG and CAT training tasks are the same as in [21,22] to ensure reproducibility and to capitalize on our robust and replicated findings for an effect of this ~~ECT~~ response training on item valuation.

A demonstration of the app and its training tasks can be found on our OSF page (https://osf.io/s4trh/?view_only=4934c0215f2943cfb42e019792a30b53). In both tasks, the participants must complete as many trials as they can in one block. Each correct response awards points to the participant. After five correct responses, the reaction time threshold (RTT) is increased of a level (Table 2). After making a certain number of accuracy or speed errors (5 without powerups), as indicated by two distinct life gauges, the run is over. This process is repeated until the participants reach 10 minutes of training for each task. The participant's highest score for a session is used as ranking in the game's anonymous scoreboard, as to maximize motivation to the training. At the end of a session, the score is also transformed to in game currency to be exchanged with task-independent power-ups, such as bigger life gauges or a double points temporary boost, to prevent repetition-induced boredom.

Table 2*. Difficulty parameters at each level for all tasks (in seconds)*

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**
GNG (RTT)	1.1	1	.9	.8	.725	.675	.625	.575	.55	.525	.5	.475	.452	.43	.407	.387	.36	.33
CAT (1.25-GSD; see Table 3)	0.88	.81	.74	.67	.62	.57	.53	.49	.455	.42	.39	.36	.335	.31	.29	.27	.26	.25

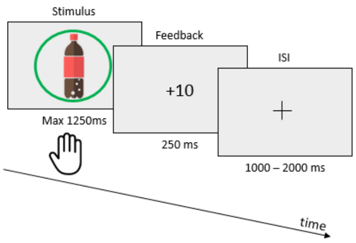
Table 3 summarizes the task parameters. Table 4 depicts the percentages of healthy (water) and unhealthy (sugary drinks) items based on the trial condition and task.

Go/NoGo

For the GNG task (Fig. 1), the participants will be presented with drink pictures and instructed to drag the pictures that are circled in green as fast as possible to the bottom of the screen; they must not touch the pictures circled in red that are accompanied. A correct response is defined either by responding to green-cued pictures (hit) below the reaction time threshold (RTT) or not responding to red-cued pictures (correct rejection [CR]). In these situations, a positive green feedback (i.e., the points obtained) is displayed with a rewarding sound. In the case of a hit above the RTT, a negative orange ('too late') feedback is displayed. If they respond to a red-cued picture (false alarm [FA]) or withhold response to a green-cued picture (miss), a negative red cross is displayed as feedback. The Go and NoGo cues are delayed by 50 ms after stimulus onset for the picture to be treated by the participants' visual system before they see the item's condition. This delay prevents the participants from only treating the cue without giving attention to the item.

To ensure response potency (i.e., a high pre-activation of motoric response), 70% of the trials consist of Go items, and 30% of NoGo items.

Figure 2. *Schematic GNG task timeline*



~~Attentional bias modification~~Cue-Approach Training

In the CAT (Fig. 2), pictures appear on the screen one after another at random locations on a grid. When a green cue is presented around the picture, accompanied by a bell sound, the participants have to click on the item before its offset occurs. If the participant responds between the cue onset and the item offset, a positive green feedback (the points obtained) is displayed with a rewarding sound. If they respond to a cued picture after the item's offset, a negative orange ('too late') feedback is shown. If they do not respond to a cued picture or respond to a non-cued item, a negative red cross appears as feedback. In the case of correct response withholding, dark grey-green feedback is displayed with a neutral non-ascending sound, and a third of the hit point is awarded to avoid creating attentional bias during NoGo trials.

Figure 3. *Schematic CAT timeline*

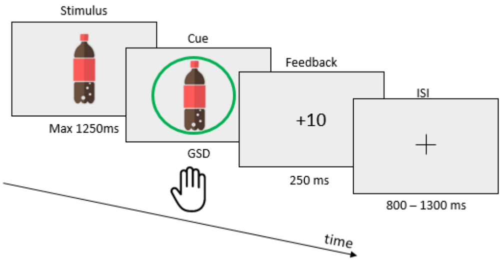


Table ~~2~~3. *Task-specific parameters*

	GNG	CAT
Go/NoGo rate	70% Go 30% NoGo	25% Go (cued items) 75% NoGo (non-cued items)
Stimulus duration	1.25 second maximum and disappearing after the response	
Feedback duration	250 ms	
Visual cue duration	Until item offset	
Visual cue delay	50 ms	Go Signal Delay (GSD): based on difficulty level (see Table 2)
Auditory cue duration	300 ms	NA
Auditory cue delay	100 ms	NA
Interstimulus interval (ISI)	1000 – 2000 ms	800 – 1300 ms*

**Since the participants only respond to 25% of the trials during the CAT, we reduced its ISI to prevent boredom.*

Table ~~3~~4*. Proportion of item categories displayed for each trial condition and group*

Experimental group		
Item type / Trial condition	Healthy	Unhealthy
Go trials	100%	0%
NoGo trials	0%	100%

Control group		
Item type / Trial condition	Healthy	Unhealthy
Go trials	50%	50%
NoGo trials	50%	50%

Questionnaires

Screening and demographic data will be collected with a 10-items custom-made questionnaire about the participant's health and willingness to follow a sugary drink restrictive diet.

At the end of the training phase, participants will receive a weekly questionnaire asking if they succeeded in not drinking the trained sugary drinks and if not, the exact date of the first consumption.

After reporting a drop-off, or at the two-months maximum, they will be asked if they drank more of other (non-selected) sugary drinks than before the diet, to assess compensatory strategies. Expectation on the study's hypothesis will also be rated using two 5-items Likert scales at the same time, asking the participants: "Do you think the researchers of this study expect that your maintenance of the diet has been improved because of the training?" and "Do you think your maintenance of the diet has been improved because of the training?" with 1 (Not at all) and 5 (Absolutely) as the anchors.

All questionnaires translated from French can be read via our OSF page under the "PROTOCOL" folder: https://osf.io/s4trh/?view_only=4934c0215f2943cfb42e019792a30b53.

Analysis plan

All tests will be performed using R base functions if not specified otherwise. The Cohen's ds will be computed using the DescTools R package[38].

Only participants who completed at least 7 sessions of training and reported non-zero values on the trained items consumption analogue scales will be considered. Dropouts and participants with missing data will not be accounted for in their respective analyses.

~~All positive controls are checked from the raw data before any processing (see "positive controls" section), including the potential exclusion of participants to respect them.~~ Excluded ~~P~~participants (i.e., dropouts, distribution outliers, positive controls exclusion) ~~excluded this way~~ will ~~be~~ not be replaced ~~only if their exclusions result in a sample size below the planned threshold~~because of resource constraints (see Sampling plan section). The study will stop recruiting after having 140 participants with complete data (i.e., all questionnaires filled).

All results will be interpreted using frequentist statistics, with Bayes Factors against the null hypothesis (BF_{01}) reported as a supplementary ~~manner~~ information to support the eventual non-significant~~ull~~ results. The BFs will be computed using the BayesFactor R package[39] with default priors. Please refer to the package manual for details on the priors (https://cran.r-project.org/web/packages/BayesFactor/BayesFactor.pdf).~~.~~

H1) Participants in the experimental training will report more successful days of high sugary drinks restrictive dieting than the control training.

For this hypothesis, only the number of successful days of diet for the experimental and control groups will be considered.

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After the eventual exclusion of participants to respect the positive controls (see "positive control section"), participants outside a 2.5*MAD (median average deviation; conservative criterion) range around the median -of successful days of diet of their respective group will be excluded.

Then, we will test the homoscedasticity assumption using the car R package[39]. If the assumption is violated (Levene test with p<0.05), we will apply the Greenhouse–Geisser correction using the rstatix R package[40].

We expect more successful days of diet in the experimental than control training condition, as assessed by a one-sided independent Welch t-test. This result will be interpreted as relevant only if the difference between both conditions is at least of 5 more days of successful dieting, even with a p-value below 0.05.

A Bayes Factor against the null hypothesis will be computed using the BayesFactor R package[41] in case of non-significant result (p > 0.05).

H2) The reduction in the explicit liking of trained items in the experimental group will correlate positively with the number of days of successful dieting.

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For this hypothesis, only the pre-post reduction in sugary drinks explicit liking and the number of days of training in the experimental group will be considered.

When computing the average explicit liking of each participant, we will exclude items with a reaction time shorter than 300 ms to ensure a thorough filling of the analogue scales. Then, the pre-post-training differences are computed.

After the eventual exclusion of participants to respect the positive controls, pParticipants outside a 2.5*MAD range around the median of both variables will be excluded.

We expect a positive linear link between the number of successful diet days and the pre-post reduction in the trained sugary drinks' explicit liking, as assessed by a one-sided correlation test. If the correlation is below 0.4, the results will be considered non-relevant even if significant (p < 0.05)

A Bayes Factor against the null hypothesis will be computed using the BayesFactor R package[41] in case of non-significant result (p > 0.05).

H3) The amount of days of training in the experimental condition will correlate positively with the number of days of successful dieting

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For this hypothesis, only the number of successful days of diet and the number of days of training in the experimental group will be considered.

~~After the eventual exclusion of participants to respect the positive controls, p~~Participants outside a 2.5*MAD range around the median of both variables will be excluded.

Based on previous data showing a uniform distribution of the number of training days across participants[22], we expect a one-sided correlation between the number of successful days of diet and the number of days of training to be applicable as our confirmatory test. If the correlation is below 0.4, the results will be considered non-relevant even if significant ($p < 0.05$).

~~A Bayes Factor against the null hypothesis will be computed using the BayesFactor R package[41] in case of non-significant result (p > 0.05).~~

Positive controls

~~*Baseline reported consumption*~~

~~For all hypotheses, the baseline reported consumption frequency of the trained items should be equivalent between the experimental and control training conditions. In case of a Cohen's d above 0.4, participants further away from their group's average will be excluded until this criterion is met.~~

Tolerance for dieting compensatory strategy

For all hypotheses, the presence of dieting compensatory strategies (see Questionnaire section) in the experimental training condition can be tolerated, as long as the majority of participants do not report one. If the majority of the experimental training participants compensate for their restrictive diet by drinking other types of sugary drinks, then the interpretation of this study's results will be adapted accordingly.

Baseline reported consumption

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For H1, the baseline reported consumption frequency of the trained items should be equivalent between the experimental and control training conditions. In case of a Cohen's d above 0.4, participants which impact this difference the most will be excluded until this criterion is met.

Expectation on the study's outcome

For H1, the expectation on the impact of training on the maintenance of the diet should be balanced between groups to interpret the results without this bias. In case of a Cohen's d above 0.4 on the average score between the two Likert scales (see Questionnaire section) between the experimental and control groups, participants which impact this difference the most participants further away from their group's average will be excluded until this criterion is met.

Acknowledgements

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Table 1: Design

Question	Hypothesis	Sampling plan	Interpretation of the smallest detectable effect size	Analysis plan	Interpretation given different outcomes	Theory that could be shown wrong by the outcomes
Can food response training modify real-world consumption behavior?	H1: Participants in the experimental training will report more successful days of high sugary drinks restrictive dieting than the control training.	For 90% power, alpha = .05, and n = 140 (70 per group, based on resource constraints) for a one-sided t-test, the smallest detectable effect size would be Cohen's d = 0.50	Based on the large variation in dieting adherence observed in the literature (e.g., [35]), we consider ~~observing~~ a medium difference ~~is enough for~~ to allow us to ~~interpret~~consider ~~such effect size~~our effect as ~~relevant~~ non-negligible in a setting ~~settings trying to boost the feasibility of~~aiming at facilitating restrictive diets.	One-sided t-test between participants in the experimental vs. control training group. If homoscedasticity assumption violated, GG correction. If $p > .05$, then BF_{01} will test the null hypothesis.	If the test is significant, then we interpret food response training as improving restrictive dieting capacities. If the test is non-significant and supported by a BF01 ≥ 3, then we interpret ~~XXX~~the result as null. If the test is non-significant, ~~but~~and not supported by a BF01 ≥ 3, then we interpret ~~XXX~~our results as non-conclusive.	If the hypothesis is not validated, then it would give support to an independence between the already observed food-ECT effects on reduction on items' valuation and in-lab consumption, and real-world consumption behavior.
Does the food response training induced reduction in perceived value influence consumption behavior?	H2: The reduction in the explicit liking of trained items in the experimental group will correlate positively with the number of days of successful dieting.	For 90% power, alpha = .05, and n = 140 (based on resource constraints) for a one-sided correlation, the smallest detectable effect size would be r = .24.	~~According to our own perception, the~~We consider that the coefficient ~~should be~~should be of -at least ~~moderate (i.e.,~~ r ≥ 0.4~~)~~ ~~for us to be confident in expressing~~to consider the association between the decrease in explicit liking and dieting behavior as non-negligible ~~a positive link between the decrease in explicit liking and dieting behavior.~~	If H1 is significant, then one-sided correlation between the pre-post reduction in explicit liking and the successful days of diet. If $p > .05$, then BF_{01} will test the null hypothesis.	If the test is significant, then the robust devaluation effect of food response training influences restrictive dieting capacities. If the test is non-significant and supported by a BF01 ≥ 3, then we interpret the result as null. If the test is non-significant, and not supported by a BF01 ≥ 3, then we interpret our results as non-conclusive.~~If the test is non-significant and supported by a BF01 ≥ 3, then we interpret XXX~~ ~~If the test is non-significant, but not supported by a BF01 ≥ 3, then we interpret XXX~~	

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Does Is the amount of training modify linked to the intervention's effect size?	H3: The amount of days of training in the experimental condition will correlate positively with the number of days of successful dieting.		We consider that the coefficient should be of at least r ≥ 0.4 to consider the association According to our own perception, the coefficient should be at least moderate (i.e., r ≥ 0.4) for us to be confident in expressing a positive link between the length of the intervention and its effect as non-negligible	If H1 is significant, then one-sided correlation between the amount of days of training and the successful days of diet. If the distribution of the amount of days of training is bimodal instead of unimodal or uniform, then the correlation will be replaced by a one-sided t-test. If the distribution is unimodal, not ranging from all possible modalities, then no analyses will be performed. If $p > .05$, then BF_{01} will test the null hypothesis.	If the test is significant, then participants should be encouraged to train for longer than one-week to reach a larger effect of food response training on restrictive dieting capacities. If the test is non-significant and supported by a BF01 ≥ 3, then we interpret the result as null. If the test is non-significant, and not supported by a BF01 ≥ 3, then we interpret our results as non-conclusive. If the test is non-significant and supported by a BF01 ≥ 3, then we interpret XXX If the test is non-significant, but not supported by a BF01 ≥ 3, then we interpret XXX	If the hypothesis is not validated, then it would indicate either a ceiling effect appearing before a week of training, or an the absence of influence a link between of the amount of training sessions on the effect of restrictive dieting behavior.

Table 1: Design

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