**Supplemental Materials**

# Experimental Materials for Study 1

(This is a translated version. The original materials were in Chinese.)

**Daily survey (Shown to everyone)**

Please recall your activities and emotional experiences today and respond to the following questions.

To what extent have you felt happy today? 1 = very slightly or not at all, 5 = extremely

To what extent have you felt sad today? 1 = very slightly or not at all, 5 = extremely

To what extent have you felt nervous today? 1 = very slightly or not at all, 5 = extremely

To what extent have you felt irritable today? 1 = very slightly or not at all, 5 = extremely

To what extent have you felt uncertain today? 1 = very slightly or not at all, 5 = extremely

To what extent have you felt excited today? 1 = very slightly or not at all, 5 = extremely

How many tweets have you posted today? \_\_\_\_\_

How many likes have you indicated today? \_\_\_\_\_

How many likes have you received today? \_\_\_\_\_

How long have you used your smartphone today? \_\_\_\_\_ (Hours)

How long have you been outdoors today? \_\_\_\_\_ (Hours)

How much money have you spent today? \_\_\_\_\_ (RMB)

Please describe any special occasions below:

|  |
| --- |
|  |

**Additional results**

Another way to probe the focal task status x dieting goal strength interaction is to examine whether the effect of an active versus completed focal task on the choice of chronic-goal-violating reward varies across individuals with different strengths of the chronic goal. We used Process (Hayes, 2013) and obtained a Johnson-Neyman value of 3.62 for the strength of participants’ chronic dieting goal (*M* = 3.46, *SD* = 1.55), at which the effect of focal task status on the rate of choosing the cheesecake voucher became significant. The participants with this level of strength of their dieting goal were more likely to choose a cheesecake voucher as a reward during the task (60.7%) than after its completion (51.6%), *B* = -0.18, Wald χ2 (1) = 3.84, *p* = .05. Although this value varies across samples and measures, the result indicates that the preference for a chronic-goal-violating reward is a self-control mechanism. In other words, only for individuals with at least a certain level of chronic goal strength, the choice rate of a chronic-goal-violating reward is higher when the focal task is active than inactive.

# Experimental Materials for Study 2

(This is a translated version. The original materials were in Chinese.)

Page one (the instructions on page one were identical across all conditions)

Thank you for your participation. This study aims to examine your arithmetic operation techniques. In this study, we will provide you with a set of adding-to-10 questions (30 in total) for you to solve. The task requires you to identify two numbers in a 3 x 4 matrix that add up to 10.

For example:

***Figure S1***. Illustration of the adding-to-10 task



After you have fully understood the rules, please click “Next” to enter the next page.

Page two (the instructions on page two varied across conditions)

**(Only shown in uninitiated focal task condition)**

Before you commence the task, please choose a voucher as a bonus for completing the task, either a voucher for a three-hour karaoke session or a voucher for a local restaurant frequented by many students. Both vouchers are equivalent to 35 CNY, and you will receive the voucher only if you successfully complete the task (the order of the options was randomized).

 Karaoke Food

*(Shown to everyone)*

Please identify two numbers in a matrix that add up to 10.

(15 matrices)

**(Only shown in active focal task condition)**

You have now completed half of the task. As a bonus, you may choose a voucher for completing the task, either a voucher for a three-hour karaoke session or a voucher for a local restaurant frequented by many students. Both vouchers are equivalent to 35 CNY, and you will receive the voucher only if you successfully complete the task (the order of the options was randomized).

 Karaoke Food

*(Shown to everyone)*

Please identify two numbers in a matrix that add up to 10.

(15 matrices)

Page three (the instructions on page three were identical across conditions)

Before signing off, please respond to some questions about your “general lifestyle” (the order of the questions was randomized) (1 = not at all, 7 = extremely).

To what extent are you currently trying to do well academically?

To what extent do you frequent the school dining hall?

To what extent are you familiar with the university’s history?

To what extent do you like traveling?

**Additional results**

We used Process (Hayes, 2013) and yielded a Johnson-Neyman value of 5.71 for the strength of participants’ chronic academic goal (*M* = 5.04, *SD* = 1.10), at which the effect of focal task status on the rate of choosing the karaoke voucher became significant. The participants with this level of strength of their academic goal were more likely to choose a karaoke voucher as a reward during the task (24.7%) than before its initiation (10.4%), *B* = -0.51, Wald χ2 (1) = 3.84, *p* = .05.

# Experimental Materials for Study 3

(This is a translated version. The original instructions were in Chinese and the article for proofreading was in English.)

Page one (the instructions on page one were identical across all conditions)

Thank you for your participation. This study aims to examine your verbal abilities; your performance will be determined by the number of typos correctly identified within 10 minutes. You will receive a bonus if and only if you outperform 70% of the participants.

(An eight-page article with inserted typos)

Page two (the instructions on page two varied across conditions)

**(Only shown in active focal task conditions)**

You have now completed half of the task. As a bonus, you may choose a voucher for completing the task, either a voucher for a three-hour karaoke session or a voucher for a six-inch cheesecake. Both vouchers are equivalent to 35 CNY, and you will receive the voucher only if you successfully complete the task (the order of the options was randomized).

 Karaoke  Cheesecake

*(Shown to everyone)*

Please continue to proofread for the next five minutes.

**(Only shown in completed focal task conditions)**

You have now completed the task. As a bonus, please choose a voucher for completing the task, either a voucher for a three-hour karaoke session or a voucher for a six-inch cheesecake. Both vouchers are equivalent to 35 CNY (the order of the options was randomized).

 Karaoke  Cheesecake

Page three (the instructions on page three were identical across conditions)

Before signing off, please respond to some questions about your “general lifestyle” (the order of the questions was randomized) (1 = not at all, 7 = extremely).

To what extent are you currently trying to do well academically?

To what extent are you concerned about being slim?

To what extent do you frequent the school dining hall?

To what extent are you familiar with the university’s history?

To what extent do you like traveling?

**Additional results**

The key dependent variable was the percentage of participants who chose the chronic-goal-violating options. Of the two reward options, the karaoke voucher violated the academic goal and the cheesecake voucher violated the dieting goal. We examined the participants’ preference for the chronic-goal-violating option separately regarding each specific chronic goal.

*Academic goal*. We coded the participants’ choice of karaoke (0 = cheesecake, 1 = karaoke) and submitted it into a logistic regression using the focal task status (-1 = active, 1 = completed), the strength of participants’ academic goal and the interaction term as predictors. The analysis yielded a focal task status x academic goal strength interaction, *B* = -0.87, Wald χ2 (1) = 14.44, *p* < .001. No other main effects emerged in this analysis (focal task status: *B* = 0.37, Wald χ2 (1) = 1.36, *p* = .243; strength of academic goal, *B* = 0.35, Wald χ2 (1) = 2.31, *p* = .129).

We also conducted an analysis that compared the slopes of the academic goal strength for different focal task statuses. When the participants were in the middle of completing the focal task (i.e., finishing the proofreading task to receive the reward), the strength of their academic goal positively predicted the likelihood of choosing the karaoke voucher, *B* = 1.22, Wald χ2 (1) = 10.35, *p* = .001, confirming the ironic effect that a greater commitment to one’s academic achievement increased the likelihood of choosing a time-wasting karaoke session as a reward for completing the urgent task at hand. However, once the focal task had been completed, academic goal strength negatively predicted the likelihood of choosing the karaoke voucher, *B* = -0.53, Wald χ2 (1) = 4.26, *p* = .039, suggesting a pattern of self-control.

*Dieting goal*. We coded the participants’ choice of cheesecake (0 = karaoke, 1 = cheesecake) and submitted it into a logistic regression using the focal task status (-1 = active, 1 = completed), the strength of participants’ dieting goal and the interaction term as predictors. The analysis yielded a focal task status x dieting goal strength interaction, *B* = -0.31, Wald χ2 (1) = 6.93, *p* = .008. No other main effects emerged (focal task status: *B* = -0.02, Wald χ2 (1) < .01, *p* = .931; strength of dieting goal, *B* < 0.01, Wald χ2 (1) < .01, *p* = .980).

We also conducted an analysis that compared the slopes of the dieting goal strength for different focal task statuses. When the participants were in the middle of completing the focal task, the strength of their dieting goal positively predicted the likelihood of choosing the cheesecake, *B* = 0.31, Wald χ2 (1) = 3.87, *p* = .049, confirming the ironic effect that a greater commitment to one’s dieting goal increased the likelihood of choosing a fatty food as a reward for completing the urgent task at hand. However, once the focal task had been completed, dieting goal strength (marginally) negatively predicted the likelihood of choosing the cheesecake, *B* = -0.31, Wald χ2 (1) = 3.12, *p* = .078, suggesting a pattern of self-control.

# Experimental Materials for Study 4

(This is a translated version. The original materials were in Chinese and the gotcha code consisted of a sequence of English letters.)

Page one (the instructions on page one were identical across all conditions)

Thank you for your participation. Gotcha code is the barely recognizable verification code printed in a distorted format that people are often asked to enter when signing into online accounts. To test your visual flexibility, this task requires you to recognize and type 80 lines of gotcha code. You will receive compensation at the end of the experiment only if you correctly identify all the words.

For example:

***Figure S2***. Illustration of the code recognition task



After you have fully understood the rules, please click “Next” to enter the next page.

Note. In case of a network outage, please do not refresh or click the “back” button. The webpage will usually recover automatically within seconds. While waiting for the recovery, you may read the magazine on your desk.

*(Either a health magazine or a geography magazine was placed on the desks before the experiment.)*

Page two (the instructions on page two varied across conditions)

*(Shown to everyone)*

This experiment requires you to recognize and type 80 lines of gotcha code.

(40 lines of gotcha code)

**(Only shown in ongoing focal task conditions)**

You have now completed one-half of the task. As a bonus, you may choose a voucher for completing the task, either a voucher for a six-inch cheesecake or a voucher for a three-hour usage of the campus recreation center. Both vouchers are equivalent to 35 CNY, and you will receive the voucher only if you successfully complete the task (the order of the options was randomized).

 Cheesecake Entertainment

*(Shown to everyone)*

This experiment requires you to recognize and type 80 lines of gotcha code.

(40 lines of gotcha code)

**(Only shown in completed focal task conditions)**

You have now completed the entire task. As a bonus, please choose a voucher for completing the task, either a voucher for a six-inch cheesecake or a voucher for a three-hour usage of the campus recreation center. Both vouchers are equivalent to 35 CNY (the order of the options was randomized).

 Cheesecake Entertainment

Page three (the instructions on page three were identical across conditions)

Before signing off, please respond to some questions about your “general lifestyle” (the order of the questions was randomized) (1 = not at all, 7 = extremely).

To what extent are you concerned about being slim?

To what extent do you frequent the school dining hall?

To what extent are you familiar with the university’s history?

To what extent do you like traveling?

Please type in the goals that you are currently pursuing. (with ten blanks)

**Additional results**

We further probed this three-way interaction by examining the two-way interaction (focal task status by the activation level of dieting goal manipulation) among participants with different dieting goal strengths. A floodlight analysis using Process (Hayes, 2013) yielded a Johnson-Neyman value of 4.08 for the strength of participants’ chronic dieting goal (*M* = 3.86, *SD* = 1.44), at which the interaction between the focal task status and the activation level of the dieting goal became significant, *B* = 0.56, Wald χ2 (1) = 3.84, *p* = .05. For those participants with a weaker dieting goal than this level, the two-way interaction was not significant.

# Experimental Materials for Study 5

(This is a translated version. The original materials were in Chinese.)

Page one (the instructions on page one were identical across all conditions)

Student Health Survey

We are collecting anonymous information on the state of college students’ health. Please use our standardized equipment to measure your height, weight and body fat level and input these measures below.

Height (cm): \_\_\_\_\_\_\_

Weight (kg):\_\_\_\_\_\_\_

Body fat level (1 = low, 5 = high):\_\_\_\_\_

Please indicate your daily activities. (1 = never, 5 = very often)

Do you stay up late?

Do you have snacks after 9 pm?

Do you like sweetened drinks such as Coke?

Do you go to the library early in the morning?

Do you drink tepid water?

Do you have dreams while you sleep?

Do you post food on your Facebook?

Do you feel dizzy after standing up?

Do you feel angry for no reason?

Do you dine at the school cafeteria?

Do you eat more than two kinds of vegetables per meal?

Do you exercise for more than two hours per day?

Do you have swollen eyes after waking up?

Do you track your weight constantly?

Are you unable to concentrate in class?

Page two (the instructions on page two were identical across all conditions)

The system is calculating your health score; please wait.

Page three (the instructions on page three varied across conditions)

*(Shown to everyone)*

Your health score: 72 / 100

This score indicates that you are in a sub-health condition, which means that even though you do not have obvious diseases, you may occasionally experience minor health issues such as headaches and insomnia.

**(Only shown in enhanced dieting goal conditions)**

Your health recommendation: A healthy lifestyle is advised to improve your health state. In particular, be cautious about your daily calorie intake.

**(Only shown in control dieting goal conditions)**

Your health recommendation: A healthy lifestyle is advised to improve your health state. In particular, be cautious about balancing work and rest.

Page four (a 5-minute filler survey, identical across all conditions)

Page five (the instructions on page five were identical across all conditions)

Finger Dexterity Test

Please click a target figure on the screen as fast as possible for six minutes. Only clicks in the range of the figure count, and the figure will randomly change in shape and position on the screen. If you outperform half of the participants today, you will receive the extra cash.

Below is a 5-second practice session.

(Presented for 2 seconds)

***Figure S3***. Practice One of the finger dexterity test

|  |
| --- |
|  |

(Presented for 3 seconds)

***Figure S4***. Practice Two of the finger dexterity test

|  |
| --- |
|  |

 In the practice session, you clicked XX times in total. Please note that in the formal test, you will not receive feedback about your performance. Please click as fast as possible.

Page six (the instructions on page six were identical across all conditions)

Part 1 (3 min)

Please click the target figure as fast as possible for three minutes. The figure will randomly change in shape and the position on the screen.

Page seven (the instructions on page seven varied across conditions)

*(Shown to everyone)*

You have now completed one-half of the task. As a bonus for completing the task, you will receive either a pack of chewing gum or a chocolate bar. Both are equivalent to 5 CNY. Due to the limited availability of different types of rewards, the system will randomly choose a reward for you, and you will receive the reward only if you successfully complete the task.

**(Only shown in dieting-goal-violating reward conditions)**

If you successfully completed the entire task, you will receive a chocolate bar.

Click “next” to continue with the task.

**(Only shown in control reward conditions)**

If you successfully completed the entire task, you will receive a pack of chewing gum.

Click “next” to continue with the task.

Page eight (the instructions on page eight were identical across all conditions)

Part 2 (3 min)

Please click the target figure as fast as possible for three minutes. The figure will randomly change in shape and position on the screen.

Page nine (the instructions on this page were identical across all conditions)

To what extent are you concerned about keeping your diet? (1 = not at all, 7 = extremely)

Page ten (the instructions on page ten varied based on performance)

*(Only shown to those who clicked 500 or more times)*

Congratulations! You’ve successfully completed the task; please collect the cash compensation as well as the extra reward before leaving.

*(Only shown to those who clicked fewer than 500 times)*

Unfortunately, you failed the task; please only collect the cash compensation before leaving.