Going beyond the 'self' in self-control:

Interpersonal consequences of commitment strategies

SUPPLEMENTAL ONLINE MATERIAL

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Additional analyses for studies in the manuscript

Study 2

Additional analyses

Effect of willpower on morality. Targets who used a commitment strategy were rated as significantly less moral than targets who used willpower ($\beta = 0.49$, SE = 0.11, t(601) = 8.91, p < 0.0001). Similar to integrity-based trust, this difference was significant for all four scenarios: flu shot ($\beta = 0.49$, SE = 0.11, t(300) = 4.42, p < 0.0001), alcohol avoidance ($\beta = 0.38$, SE = 0.04, t(304) = 4.42, p < 0.001), gym attendance ($\beta = 0.27$, SE = 0.11, t(300) = 2.38, p = 0.018), and junk food avoidance ($\beta = 0.25$, SE = 0.12, t(292) = 2.18, p = 0.03).

Likelihood of goal achievement. On average, there was no significant difference in participant beliefs about the likelihood of targets achieving their goal by condition (M = 4.06, SE = 1.62, t(1203) = 1.21, p = 0.28). There was some variation when looking at individual scenarios. The difference by condition was non-significant in the alcohol avoidance scenario (M =4.03 , SE =0.18 , t(305)=0.35, p = 0.72). However, in the flu shot scenario participants believed targets who used willpower were significantly more likely to achieve their goal (M = 3.68, SE = 0.19, t(301) = -3.37, p < 0.001). Alternatively, in the gym attendance (M=4.17, SE = 0.19, t(301) = 1.76, p = 0.080) and junk food avoidance (M = 4.35 , SE = 0.17 , t(293) = 4.09, p < 0.001) scenarios, participants believed targets using the commitment strategy were (marginally and significantly, respectively) more likely to achieve their goal.

Study 4

Additional exploratory measures

We did not have pre-registered predictions regarding these exploratory measures.

Protestant Work Ethic. Participants were asked the extent to which they agreed or disagreed with four items from the Protestant Work Ethic Scale (Levin et al., 1998). "Even if people try hard they often cannot reach their goals;" "Most people who don't get ahead should not blame the system; they really have only themselves to blame;" "If people work hard, they almost always get what they want;" and "Hard work offers little guarantee for success."

Further exploratory measures about strategy use. Participants were asked the extent to which they agreed or disagreed with the following four items "It is better to achieve a goal using willpower as opposed to changing the situation to resist temptation;" "People who achieve their goal by using external strategies (like having a friend hold them accountable or changing their environment to remove temptation) feel satisfied when they achieve their goals;" "Willpower is a skill people can gain over time;" and "When you get better at using willpower in one situation, you can then use that in another situation."

Post-hoc power analyses for main text studies

In the table below we include post-hoc power analyses to determine the power to detect our main effects, given our sample size.

Study	Effect Size	Observations (per condition)	Post-hoc Power
1	$w = 0.37$	383	>0.99
2	$d_{integrity} = 0.41$	602	>0.99
3	$d_{integrity\text{-}choose} = 0.41$	597	0.84
4	$d_{integrity} = 0.99$	291	>0.99
5a	$d_{integrity} = 0.28$	199	0.80
5b	$d = 0.97$	150	>0.99
6	$d_{public} = 0.20$	301	0.69

Additional supplemental studies

Study S1

Study S1 provides another incentive compatible test of whether people are more likely to trust those who use willpower as opposed to commitment strategies to achieve their goals. The pre-registration for Study S1 is available at https://aspredicted.org/blind.php?x=6ux42j.

Study S1: Method

Participants. Two hundred and twenty participants (48.6% female, 16.8% non-white; M_{age}= 41.8, SD_{age}= 12.1) were recruited from Amazon Mechanical Turk to take part in an online experiment in exchange for monetary payment. Information about how participant exclusions are detailed in the Results section below.

Procedure. Participants first read instructions for the trust game (Berg, Dickhaut, & McCabe, 1995). These instructions were nearly identical to the instructions used in Study 1, with one difference. Rather than being forced to decide which red player to pass the $1 to (the willpower user or the commitment strategy user), participants had a third option to keep the $1 and not pass money to any red player. Specifically, participants saw the following instructions:

> *You have the option to choose whether you would like to keep the $1 for yourself or to pass the $1 to a RED player who uses willpower or to pass the $1 to a RED player who uses the app. (And the RED player will then decide to keep the $3 or return $1.50 of it to you). Which option would you choose?*

After participants decided if they wanted to keep the $1, pass it to the person who uses willpower, or pass it to the person who uses the commitment strategy, they provided their demographic information.

Study S1: Results

Final sample determination. Our goal was to end up with a final usable sample of at least 200 participants, as specified in our pre-registration. Based on pilot testing, we opened up the study to 880 people. Eight hundred and eighty-one participants (46.4% female, 21.1% non-white; M_{age} = 40.3, SD_{age} = 12.2) from Amazon Mechanical Turk initially took part in the study. As outlined in our pre-registration, we excluded participants for two reasons. First, we excluded participants who failed both comprehension checks (N = 375). Second, we excluded participants who chose to keep all of the money for themselves (i.e., they did not pass money to either red player; N = 286). Because these participants did not actually make a choice of who to trust, we were not able to include them in the analyses. These exclusions left us with the final sample of 220 participants described above.

Effect of willpower on trust. Our primary dependent measure, like in Study 1, was which of the two red players participants preferred to pass the money to: the red player who used willpower or the red player who used the commitment strategy.

Of the 220 participants in our final sample, 161 (73%) chose to pass the money to the red player who used willpower, and 59 (27%) chose to pass the money to the red player who used the commitment strategy. A chi-squared test indicated that participants preferred to pass the money to the player who used willpower by a significant margin (χ^2 = 46.37, p < 0.0001). This replicates the results found in Study 1.

Study S2

Study S2 uses an alternative framing of the choice between using willpower or a commitment strategy to test the robustness of the effect. Specifically, as opposed to framing the target's decision as being between using an external commitment strategy or internal willpower (as in other studies), in Study S2 we present participants with a target who either chose to use a

commitment strategy or chose not to use it. The pre-registration for Study S2 is available at

https://aspredicted.org/248_PT4.

Study S2: Method

      Participants. Three hundred and ninety-nine participants (53.9% female; 23.6% non-

white; M_{age} 42.1, SD_{age} 12.8) from Mechanical Turk took part in an online experiment in

exchange for monetary payment.

      Procedure. All participants read the following scenario:

"Sam has decided to eat healthier. Sam could use an app that takes $5 and donates it to

an "anti-charity" (such as the political campaign of a candidate he is against) each time

he snacks on unhealthy junk food. "

Participants were then randomly assigned to one of two conditions. In the commitment

choice condition participants read, "Sam chooses to use the app to help him eat healthier," and in

the commitment non-choice condition, participants read "Sam chooses NOT to use the app to

help him eat healthier." Participants then completed the same measures of integrity-based trust

and benevolence-based trust used in Study 2. Finally, they filled out a section about their

demographic information.

Study S2: Results

      Effect of strategy on integrity-based trust. As predicted, participants indicated that the

target who chose not to use the commitment strategy to achieve their goals was higher on

integrity-based trust than the target who chose to use it ($\beta = 0.52$, $SE = 0.10$, $t(397) = 5.38$, $p < 0.0001$).

Effect of strategy on benevolence-based trust. Participants also indicated that the target who chose not to use the commitment strategy was higher on benevolence-based trust than the target who chose to use it ($\beta = 0.44$, SE = 0.10, t(397) = 4.47, p < 0.001).

Study S2: Discussion

In Study S2 we find that turning down a commitment strategy is seen as signaling higher integrity than choosing to use one. Additionally, this study demonstrates that this effect is not limited to situations where the target is explicitly described as "using willpower." As such, this phenomenon is not limited to people's reactions to a specific word (i.e.,, willpower), but instead seems to reflect a general belief that the use of external strategies are harmful to interpersonal trust.