Online Appendix

A Theoretical Appendix

A.1 Solving the model under Streak incentives

Under Streak incentives, an agent's behavior in all periods except the last streak period, i.e. the Pth streak period of a P-period streak, depends on her beliefs about her future behavior. In contrast, an agent's behavior in last streak periods does not depend on beliefs. This is because the period following a last streak period is always a first streak period irrespective of whether the agent meditates or not. We thus start solving the problem for last streak periods. Here, an agent faces the same decision problem as with the Constant incentive scheme, except that the extra reward for meditating in this period equals m_s instead of m_c. Agent i's expected meditation frequency in last streak periods thus equals $\mathcal{F}^S_{i,P} = \frac{\beta_i(b_i+m_s)}{\bar{c}_i}$.

All other streak periods do not directly generate a monetary reward for meditating. Meditating in such periods merely preserves the chance to complete a streak and thereby receive m_s. If the agent does not meditate, she foregoes this chance and enters a new streak. The value of meditating for agent i in streak period $p < P$ is the value of continuing the streak instead of interrupting it. We call it her perceived option value and denote it by $\hat{v}_{i,p}$. This option value equals the difference between her perceived expected utility in the next streak period, $\hat{\mathcal{U}}^S_{i,p+1}$, and her perceived expected utility from starting a new streak, $\hat{\mathcal{U}}^S_{i,1}$ (utilities are derived in the next section, A.2). As the benefits and perceived option value are future payoffs but costs are immediate, agent i meditates in period t if and only if $\beta(b_i + \hat{v}_{i,p}) \geq c_{it}$. Therefore, her expected meditation frequency in all but the last streak period is $\mathcal{F}^S_{i,p} = \frac{\beta_i(b_i+\hat{v}_{i,p})}{\bar{c}_i}$. $\hat{v}_{i,p}$ is increasing in p, i.e. the perceived option value increases the closer an agent gets to the last streak period (cf. Proof of Proposition 2). This implies that agents are more likely to meditate in later compared to earlier streak periods.

Agent i's overall expected meditation frequency is an average weighted by the likelihood of being in each streak period, denoted by $q_{i,p}$. Agents enter a streak period p in period t if and only if they were in a streak period $p-1$ in $t-1$ and meditated in $t-1$. The likelihood of an agent being in a streak period p thus equals the likelihood of the agent being in a streak period $p-1$ times her expected meditation frequency in streak periods $p-1$. Formally, this implies that $q_{i,p} = q_{i,p-1}\mathcal{F}^S_{i,p}$ must hold. As $\sum_p q_{i,p} = 1$, this equates to $q_{i,p} = \frac{\frac{1}{\mathcal{F}^S_{i,p}}\prod_{k=1}^{p}\mathcal{F}^S_{i,k}}{1+\sum_{m=1}^{P}\prod_{k=1}^{m-1}\mathcal{F}^S_{i,k}}$. The resulting expected meditation frequency then equals

$$\mathcal{F}^S_i = \sum_{p=1}^{P} q_{i,p}\mathcal{F}^S_{i,p} = \frac{\sum_{p=1}^{P}\prod_{k=1}^{p}\mathcal{F}^S_{i,k}}{1+\sum_{m=1}^{P}\prod_{k=1}^{m-1}\mathcal{F}^S_{i,k}} = \frac{\sum_{p=1}^{P}\prod_{k=1}^{p}\frac{\beta_i(b_i+\hat{v}_{i,k})}{\bar{c}_i}}{1+\sum_{m=1}^{P}\prod_{k=1}^{m-1}\frac{\beta_i(b_i+\hat{v}_{i,k})}{\bar{c}_i}}. \tag{A1}$$

where $\hat{v}_{i,P} = m_s$. Note that an agent's expected meditation frequency increases in her perceived short-run discount factor $\hat{\beta}_i$. An overoptimistic belief about one's future meditation behavior makes one overestimate the option values, thereby driving up *actual* meditation frequency.

A.2 Utility

This section derives the effect of incentives on agents' actual and perceived expected utilities per period. As agents may be time-inconsistent, we need to take a stance on whether an agent's long-run or short-run preferences describe her 'true' preferences. As is standard in the literature, we assume that agents' long-run (time-consistent) preferences are utility- and welfare-relevant (O'Donoghue and Rabin, 2001; DellaVigna and Malmendier, 2004; Galperti, 2015). Note that this assumption does not affect the results in the main text. Next to agents' actual expected utilities, we also derive agents' perceived expected utilities under Constant and Streak, which determine how agents choose between the two incentive schemes.

Baseline. If agent i meditates in period t, she obtains a utility of $b_i - c_{it}$. If she does not meditate, her utility is zero. As agent i meditates in period t if and only if $\beta_i b_i \geq c_{it}$, her expected utility thus equals

$$\mathcal{U}^B_i = \int_0^{\beta_i b_i} (b_i - c_{it})\frac{1}{\bar{c}_i}dc_{it} = \frac{1}{2\bar{c}_i}(2-\beta_i)\beta_i b_i^2. \tag{A2}$$

Constant. If agent i meditates in period t, she obtains a utility of $b_i + m_c - c_{it}$. If she does not meditate, her utility is zero. As agent i meditates in period t if and only if

$\beta_i(b_i + m_c) \geq c_{it}$, her expected utility thus equals

$$\mathcal{U}_i^C = \int_0^{\beta_i(b_i+m_c)} (b_i + m_c - c_{it})\frac{1}{\overline{c}_i} dc_{it} = \frac{1}{2\overline{c}_i}(2 - \beta_i)\beta_i(b_i + m_c)^2. \tag{A3}$$

(Partially) naive agents ($\beta_i < \hat{\beta}_i \leq 1$) mispredict their meditation frequency and expect to meditate in any period t whenever $\hat{\beta}_i(b_i + m_c) \geq c_{it}$, resulting in a perceived expected utility at $t = 0$ of

$$\hat{\mathcal{U}}_i^C = \beta_i \int_0^{\hat{\beta}_i(b_i+m_c)} (b_i + m_c - c_{it})\frac{1}{\overline{c}_i} dc_{it} = \frac{\beta_i}{2\overline{c}_i}(2 - \hat{\beta}_i)\hat{\beta}_i(b_i + m_c)^2. \tag{A4}$$

Streak. An agent's actual and perceived expected utilities in streak period p take an identical formulation as in the Constant scheme, with the exception that the perceived option value, $\hat{v}_{i,p}$, replaces the payment m_c, with $\hat{v}_{i,P} = m_s$. Thus the actual and perceived expected utilities in streak period p equal

$$\mathcal{U}_{i,p}^S = \int_0^{\beta_i(b_i+\hat{v}_{i,p})} (b_i + \hat{v}_{i,p} - c_{it})\frac{1}{\overline{c}_i} dc_{it} = \frac{1}{2\overline{c}_i}(2 - \beta_i)\beta_i(b_i + \hat{v}_{i,p})^2 \tag{A5}$$

and

$$\hat{\mathcal{U}}_{i,p}^S = \int_0^{\hat{\beta}_i(b_i+\hat{v}_{i,p})} (b_i + \hat{v}_{i,p} - c_{it})\frac{1}{\overline{c}_i} dc_{it} = \frac{1}{2\overline{c}_i}(2 - \hat{\beta}_i)\hat{\beta}_i(b_i + \hat{v}_{i,p})^2. \tag{A6}$$

Recall that an agent takes the latter into account to decide whether or not to meditate in each period as $\hat{v}_{i,p} = \hat{U}_{i,p+1}^S - \hat{U}_{i,1}^S$. However, in order to compute the overall actual and perceived expected utilities, we need to sum up expected *direct* utilities. Expected *direct* utility refers to the utility the agent is expected to get from the incentivized activity plus the monetary incentives, but excluding the anticipatory option value.

In all but the last streak period, the expected *direct* utility equals the expected utility in streak period p (reported in A5 and A6) minus the perceived option value times the expected frequency in p, or formally $\int_0^{\beta_i(b_i+\hat{v}_{i,p})}(b_i - c_{it})\frac{1}{\overline{c}_i}dc_{it} = \mathcal{U}_{i,p}^S - \hat{v}_{i,p}\mathcal{F}_{i,p}^S$ (for the actual expected *direct* utility), and $\int_0^{\hat{\beta}_i(b_i+\hat{v}_{i,p})}(b_i - c_{it})\frac{1}{\overline{c}_i}dc_{it} = \hat{\mathcal{U}}_{i,p}^S - \hat{v}_{i,p}\hat{\mathcal{F}}_{i,p}^S$ (for the perceived expected *direct* utility). In the last streak period, there is no anticipatory option value, and thus the *direct* utilities in P coincide with the utilities in P.

The discounted and weighted average over all expected *direct* utilities, yields the agent's expected utilities, where we again differentiate between actual, $\mathcal{U}_i^S$ and perceived,

$\hat{\mathcal{U}}_i^S$. In formulas:

$$\hat{\mathcal{U}}_i^S = \beta_i \sum_p^{P-1} \hat{q}_{i,p}(\hat{\mathcal{U}}_{i,p}^S - \hat{v}_{i,p}\hat{\mathcal{F}}_{i,p}^S) + \hat{q}_{i,P}\hat{\mathcal{U}}_{i,P}^S = \beta_i \sum_p^{P-1} \hat{q}_{i,p}(\hat{\mathcal{U}}_{i,p}^S - (\hat{\mathcal{U}}_{i,p+1}^S - \hat{\mathcal{U}}_{i,1}^S)\hat{\mathcal{F}}_{i,p}^S) + \hat{q}_{i,P}\hat{\mathcal{U}}_{i,P}^S = \beta_i \hat{\mathcal{U}}_{i,1}^S$$

as $\hat{v}_{i,p} = \hat{\mathcal{U}}_{i,p+1}^S - \hat{\mathcal{U}}_{i,1}^S$ and $\hat{q}_{i,p+1} = \hat{q}_{i,p}\hat{\mathcal{F}}_{i,p}^S$, where $\hat{q}_{i,p}$ denotes an agent's perceived likelihood of being in streak period p. Therefore, an agent's perceived expected utility at $t = 0$ equals

$$\hat{\mathcal{U}}_i^S = \frac{\beta_i}{2\bar{c}_i}(2 - \hat{\beta}_i)\hat{\beta}_i(b_i + \hat{v}_{i,1})^2. \tag{A7}$$

Similarly, we obtain

$$\mathcal{U}_i^S = \sum_p^{P-1} q_{i,p}(\mathcal{U}_{i,p}^S - \hat{v}_{i,p}\mathcal{F}_{i,p}^S) + q_{i,P}\mathcal{U}_{i,P}^S = \sum_p^{P-1} q_{i,p}(\mathcal{U}_{i,p}^S - (\hat{\mathcal{U}}_{i,p+1}^S - \hat{\mathcal{U}}_{i,1}^S)\mathcal{F}_{i,p}^S) + q_{i,P}\mathcal{U}_{i,P}^S$$

$$\mathcal{U}_i^S = \hat{\mathcal{U}}_{i,1}^S - \sum_p^{P} q_{i,p}(\hat{\mathcal{U}}_{i,p}^S - \mathcal{U}_{i,p}^S)$$

As $\mathcal{U}_{i,p}^S = \frac{(2-\beta_i)\beta_i}{(2-\hat{\beta}_i)\hat{\beta}_i}\hat{\mathcal{U}}_{i,p}^S$, an agent's actual expected utility thus equals

$$\mathcal{U}_i^S = \hat{\mathcal{U}}_{i,1}^S - \left(1 - \frac{(2-\beta_i)\beta_i}{(2-\hat{\beta}_i)\hat{\beta}_i}\right) \sum_p^{P} q_{i,p}\hat{\mathcal{U}}_{i,p}^S \tag{A8}$$

The actual (respectively, perceived) expected utility reveals what an agent is expected (respectively, perceives) to gain on average from a given incentive scheme.

Having characterized the actual expected utilities in the baseline (A2) as well as Constant (A3) and Streak scheme (A8), we can derive the following result.

Proposition U1 (Incentive effect on Utility) *Both the Constant and Streak incentive scheme increase an agent's expected utility.*

The proof is in the next section, A.3. Note that this result holds irrespective of the size of incentives, even if the incentives induce an agent to overmeditate. The intuition is that the monetary rewards always overcompensate a possible overmeditation, at least in expectation. Ex-post, it could occur that the Streak scheme decreases an agent's utility if the agent fails to complete a streak.

A.3 Proofs of Main Propositions

This section contains the proofs of the four main propositions, which are spelled out in the main text. It also includes the proof of proposition U1 from the previous appendix section.

Proof of Proposition 1 (Incentive effect) For the Constant scheme: Meditation frequency under Constant, $\mathcal{F}_i^C$, and baseline, $\mathcal{F}_i^B$, compare as follows: $\mathcal{F}_i^C = \frac{\beta_i(b_i+m_c)}{\bar{c}_i} > \frac{\beta_i b_i}{\bar{c}_i} = \mathbb{E}[\mathcal{F}_i^B]$ as $m_c > 0$ and $b_i \geq 0$ by assumption.

For the Streak scheme: Meditation frequency under Streak equals $\mathcal{F}_i^S = \sum_{p=1}^{P} q_{i,p} \frac{\beta_i(b_i+\hat{v}_{i,p})}{\bar{c}_i}$. Clearly, a sufficient condition for $\mathcal{F}_i^S > \mathcal{F}_i^B$ is $\hat{v}_{i,p} > 0 \ \forall \ i, p$. The proof is by contradiction. First, recall the perceived option value $\hat{v}_{i,p} = \hat{\mathcal{U}}_{i,p+1}^S - \hat{\mathcal{U}}_{i,1}^S$ and perceived total per-period utility $\hat{\mathcal{U}}_{i,p}^S = \frac{1}{2\bar{c}_i}(2-\hat{\beta}_i)\hat{\beta}_i(b_i+\hat{v}_{i,p})^2 \ \forall \ i, p$ (A6). Now, assume that for an arbitrary i there exists at least one $\hat{v}_{i,p} \leq 0$. Define by k the lowest p for which this is the case. If $k = 1$, $\hat{v}_{i,1} = \hat{\mathcal{U}}_{i,2}^S - \hat{\mathcal{U}}_{i,1}^S \leq 0$. It follows that $\hat{v}_{i,2} - \hat{v}_{i,1} \leq 0$, so that $\hat{\mathcal{U}}_{i,3}^S - \hat{\mathcal{U}}_{i,2}^S \leq 0$, thus $\hat{v}_{i,3} - \hat{v}_{i,2} \leq 0$, and so forth. This results in the contradiction that $0 < m_s = \hat{v}_{i,P} \leq \hat{v}_{i,1} \leq 0$. Therefore, $\hat{v}_{i,1} > 0$. Now, assume that $k \geq 2$. By construction, $\hat{v}_{i,k-1} > 0$, thus $\hat{v}_{i,k} - \hat{v}_{i,1} > 0$. But then $0 < \hat{v}_{i,1} < \hat{v}_{i,k} \leq 0$ is a contradiction. Therefore, $\hat{v}_{i,p} > 0 \ \forall \ i, p$ must hold. Both the Constant and Streak incentive scheme thus increase an agent's expected meditation frequency. ∎

Proof of Proposition 2 (Single crossing) Recall that the expected meditation frequencies under the Constant and Streak scheme equal $\mathcal{F}_i^C = \frac{\beta_i(b_i+m_c)}{\bar{c}_i}$ and $\mathcal{F}_i^S = \sum_{p=1}^{P} q_{i,p}\mathcal{F}_{i,p}^S$ with $\mathcal{F}_{i,p}^S = \frac{\beta_i(b_i+\hat{v}_{i,p})}{\bar{c}_i}$ (cf. Section 2.2.1., and (A1) in Appendix A.1).

I. We start by assuming that for each agent i, at least one b_i^* exists such that $\mathcal{F}_i^S = \mathcal{F}_i^C$ (i.e., the expected meditation frequency is the same under Constant and Streak) if $b_i = b_i^*$. We then show that $\mathcal{F}_i^S > \mathcal{F}_i^C$ if $b_i > b_i^*$, and that $\mathcal{F}_i^S < \mathcal{F}_i^C$ if $b_i < b_i^*$ (which also implies that b_i^* is unique). To do so, we show that the sufficient condition $\frac{\partial \mathcal{F}_i^S}{\partial b_i} > \frac{\partial \mathcal{F}_i^C}{\partial b_i}$ must hold for all i. Recall that $\max\{m_c, m_s\} + b_i < \bar{c}_i \ \forall \ i$ by assumption (cf. endnote 18), so that $\mathcal{F}_i^C$ and $\mathcal{F}_i^S$ are differentiable in the relevant regions. For Constant, one then immediately obtains $\frac{\partial \mathcal{F}_i^C}{\partial b_i} = \frac{\beta_i}{\bar{c}_i}$.

For Streak, we take two steps.

First, an increase in b_i changes the frequency with which agent i is in a given streak period. As $q_{i,p+1} = q_{i,p}\mathcal{F}_{i,p}^S$, a ceteris paribus increase in $\mathcal{F}_{i,p}^S$ for any $p < P$ increases the frequency of being in a streak period $k > p$, $q_{i,k}$. Thus, if $\mathcal{F}^S_{i,k} > \mathcal{F}^S_{i,p}\ \forall\ k > p$, this shift increases meditation frequency. We now prove that this is the case by contradiction. Assume that there is a $k \geq 2$ s.t. $\mathcal{F}^S_{i,k} > \mathcal{F}^S_{i,k+1}$. Then $\hat{v}_{i,k} > \hat{v}_{i,k+1}$. It follows that $\hat{v}_{i,k+j} > \hat{v}_{i,k+1+j}\ \forall\ 1 \leq j \leq P-k-1$. However, $\hat{v}_{i,1} < \hat{v}_{i,2}$ implies $\hat{v}_{i,1+j} < \hat{v}_{i,2+j}\ \forall\ 1 \leq j \leq P-2$, yielding a contradiction. If instead $\hat{v}_{i,1} > \hat{v}_{i,2}$, then it follows that $\hat{v}_{i,1} < 0$, which is impossible (Proof of Proposition 1). Therefore, $\hat{v}_{i,k} > \hat{v}_{i,p}\ \forall\ k > p$ and thus $\mathcal{F}^S_{i,k} > \mathcal{F}^S_{i,p}\ \forall\ k > p$.

Second, note that the meditation frequency under a given streak period p increases in b_i by $\frac{\partial \mathcal{F}^S_{i,p}}{\partial b_i} = \frac{\beta_i(1+\frac{\partial \hat{v}_{i,p}}{\partial b_i})}{\bar{c}_i}$, so that $\frac{\partial \mathcal{F}^S_{i,p}}{\partial b_i} > \frac{\partial \mathcal{F}^C_{i}}{\partial b_i}$ if $\frac{\partial \hat{v}_{i,p}}{\partial b_i} > 0\ \forall\ p \leq P-1$. The proof for the latter condition is by contradiction. Assume that $\exists p \leq P-1 : \frac{\partial \hat{v}_{i,p}}{\partial b_i} \leq 0$. Define by k the lowest p for which this is the case. If $k = 1$, then sequentially for all $p \in \{1, 2, \ldots, P-1\}$, $\frac{\partial \hat{v}_{i,p}}{\partial b_i} = \frac{\partial(\hat{\mathcal{U}}^S_{i,p+1} - \hat{\mathcal{U}}^S_{i,1})}{\partial b_i} = \frac{1}{2\bar{c}_i}(2-\hat{\beta}_i)\hat{\beta}_i\left(\hat{v}_{i,p+1} - \hat{v}_{i,1} + b_i(\frac{\partial \hat{v}_{i,p+1}}{\partial b_i} - \frac{\partial \hat{v}_{i,1}}{\partial b_i}) + 2(\hat{v}_{i,p+1}\frac{\partial \hat{v}_{i,p+1}}{\partial b_i} - \hat{v}_{i,1}\frac{\partial \hat{v}_{i,1}}{\partial b_i})\right) \leq 0$ implies that $\frac{\partial \hat{v}_{i,p+1}}{\partial b_i} < 0$ as $\hat{v}_{i,p+1} > \hat{v}_{i,1}$. However, $\frac{\partial \hat{v}_{i,P}}{\partial b_i} = 0$, yielding a contradiction. Therefore, $\frac{\partial \hat{v}_{i,1}}{\partial b_i} > 0$. Similarly, if $k \geq 2$, then sequentially for all $p \in \{k, \ldots, P-1\}$, $\frac{\partial \hat{v}_{i,p}}{\partial b_i} - \frac{\partial \hat{v}_{i,k-1}}{\partial b_i} = \frac{\partial(\hat{\mathcal{U}}^S_{i,p+1} - \hat{\mathcal{U}}^S_{i,k})}{\partial b_i} = \frac{1}{2\bar{c}_i}(2-\hat{\beta}_i)\hat{\beta}_i\left(\hat{v}_{i,p+1} - \hat{v}_{i,k} + b_i(\frac{\partial \hat{v}_{i,p+1}}{\partial b_i} - \frac{\partial \hat{v}_{i,k}}{\partial b_i}) + 2(\hat{v}_{i,p+1}\frac{\partial \hat{v}_{i,p+1}}{\partial b_i} - \hat{v}_{i,k}\frac{\partial \hat{v}_{i,k}}{\partial b_i})\right) \leq 0$ implies that $\frac{\partial \hat{v}_{i,p+1}}{\partial b_i} < 0$ as $\hat{v}_{i,p+1} > \hat{v}_{i,k}$, again yielding a contradiction as $\frac{\partial \hat{v}_{i,P}}{\partial b_i} = 0$. Therefore, $\frac{\partial \hat{v}_{i,p}}{\partial b_i} > 0\ \forall\ p \leq P-1$.

II. If there does not exist any b^*_i such that $\mathcal{F}^S_i = \mathcal{F}^C_i$, then either $\mathcal{F}^C_i < \mathcal{F}^S_i$ or $\mathcal{F}^C_i > \mathcal{F}^S_i$ must hold for all permissible benefits $\tilde{b}_i \in (0, \bar{c}_i - \max\{m_c, m_s\})$ (cf. endnote 18) due to the continuity of $\mathcal{F}^C_i$ and $\mathcal{F}^S_i$. In this case, we assign $b^*_i = 0$ if $\mathcal{F}^S_i > \mathcal{F}^C_i$ for all $\tilde{b}_i \in (0, \bar{c}_i - \max\{m_c, m_s\})$ and $b^*_i = \bar{c}_i - \max\{m_c, m_s\}$ if $\mathcal{F}^C_i > \mathcal{F}^S_i$ for all $\tilde{b}_i \in (0, \bar{c}_i - \max\{m_c, m_s\})$.

Taken together, any agent i has the same expected meditation frequency under the Constant and Streak incentive scheme if and only if $b_i = b^*_i(\beta_i, \hat{\beta}_i, \bar{c}, m_c, m_s)$, and has a higher (lower) expected meditation frequency under the Streak than the Constant incentive scheme if and only if $b_i > b^*_i$ ($b_i < b^*_i$). ■

Proof of Proposition 3 (Sorting) Recall that the perceived expected per-period utilities at $t = 0$ under the Constant and Streak incentive scheme equal $\hat{\mathcal{U}}^C_i = \frac{\beta_i}{2\bar{c}_i}(2-\hat{\beta}_i)\hat{\beta}_i(b_i + m_c)^2$ and $\hat{\mathcal{U}}^S_i = \frac{\beta_i}{2\bar{c}_i}(2-\hat{\beta}_i)\hat{\beta}_i(b_i + \hat{v}_{i,1})^2$ ((A4) and (A7) in Appendix A.2). All agents for whom $\hat{v}_{i,1} < m_c$ thus choose the Constant and all agents with $\hat{v}_{i,1} > m_c$ choose the Streak incentive scheme. As $\frac{\partial \hat{v}_{i,1}}{\partial b_i} > 0\ \forall\ i$ (Proof of Proposition 2), for any i there exists at most one b_i, namely $b_i = b'_i(\hat{\beta}_i, \bar{c}, m_c, m_s)$, such that she is indifferent between the Constant and Streak incentive scheme, and all agents with $b_i < b'_i$ choose the Constant and all agents with $b_i > b'_i$ choose the Streak incentive scheme. Following Proof of Proposition 2, we assign $b_i' = 0$ if $\mathcal{F}_i^S > \mathcal{F}_i^C$ for all $\tilde{b}_i \in (0, \bar{c}_i - \max\{m_c, m_s\})$ and $b_i' = \bar{c}_i - \max\{m_c, m_s\}$ if $\mathcal{F}_i^C > \mathcal{F}_i^S$ for all $\tilde{b}_i \in (0, \bar{c}_i - \max\{m_c, m_s\})$. ■

Proof of Proposition 4 (Frequency) First, recall from (Proposition 3) that all agents with $b_i < b_i'$ choose the Constant incentive scheme and all agents with $b_i > b_i'$ choose the Streak incentive scheme. Further, recall that $\mathcal{F}^{Ra} = \frac{1}{N}(\sum_i \alpha \mathcal{F}_i^C + (1-\alpha)\mathcal{F}_i^S)$ and $\mathcal{F}^{Ch} = \frac{1}{N}(\sum_{i:b_i<b_i'} \mathcal{F}_i^C + \sum_{i:b_i \geq b_i'} \mathcal{F}_i^S)$ (cf. Sections 2.2.2. and 2.2.3.).

Condition 1: As $\sum_i \mathcal{F}_i^C \geq \sum_i \mathcal{F}_i^S$ by assumption, $\mathcal{F}^{Ra} \leq \sum_i \mathcal{F}_i^C$. Therefore, $\mathcal{F}^{Ch} > \mathcal{F}^{Ra}$ if $\sum_{i:b_i \geq b_i'} \mathcal{F}_i^S - \mathcal{F}_i^C > 0$. As $\frac{\partial \hat{v}_{i,p}}{\partial p} > 0$ (Proof of Proposition 2), $\mathcal{F}_{i,k}^S > \mathcal{F}_{i,1}^S \ \forall\ k \geq 2$, thus $\mathcal{F}_i^S > \mathcal{F}_{i,1}^S$. By Proof of Proposition 3, it holds that $\hat{v}_{i,1} \geq m_c \ \forall\ i : b_i \geq b_i'$, so that $\mathcal{F}_{i,1}^S \geq \mathcal{F}_i^C \ \forall\ i : b_i \geq b_i'$. Therefore, $\mathcal{F}_i^S > \mathcal{F}_i^C \ \forall\ i : b_i \geq b_i'$, implying that $\mathcal{F}^{Ch} > \mathcal{F}^{Ra}$ as $\exists\ i : b_i \geq b_i'$ (cf. endnote 18).

Condition 2: Define $\mathcal{D}_i = \mathcal{F}_i^S - \mathcal{F}_i^C$. Reformulate $\mathcal{F}^{Ch} = \frac{1}{N}(\sum_i \mathcal{F}_i^C + \sum_{i:b_i \geq b_i'} \mathcal{D}_i)$ and $\mathcal{F}^{Ra} = \frac{1}{N}(\sum_i \mathcal{F}_i^C + \sum_i (1-\alpha)\mathcal{D}_i)$. Thus $\mathcal{F}^{Ch} - \mathcal{F}^{Ra} = \frac{1}{N}(\sum_{i:b_i \geq b_i'} \mathcal{D}_i - \sum_i (1-\alpha)\mathcal{D}_i) = \frac{|\{i:b_i \geq b_i'\}|}{N}\mathbb{E}[\mathcal{D}_i | b_i \geq b_i'] - (1-\alpha)\mathbb{E}[\mathcal{D}_i]$. As $\frac{\partial \mathcal{D}_i}{\partial b_i} > 0 \ \forall\ i$ (Proof of Proposition 2) and given the independence between b_i, $\bar{c}_i$ and $(\beta_i, \hat{\beta}_i)$ by assumption, $\mathbb{E}[\mathcal{D}_i | b_i \geq b_i'] > \mathbb{E}[\mathcal{D}_i]$. Further, as $\mathcal{D}_i > 0 \ \forall\ i : b_i \geq b_i'$ and $\alpha \geq \frac{|\{i:b_i<b_i'\}|}{N} > 0$ by assumption, $\mathcal{F}^{Ch} - \mathcal{F}^{Ra} > 0$.

Therefore, letting agents choose their incentive scheme yields a higher average expected meditation frequency than exogenously assigning agents to incentive schemes if Condition 1 or 2 are satisfied. ■

Proof of Proposition U1 (Incentive effect on Utility) ← For the Constant scheme: $\mathcal{U}_i^C = \frac{1}{2\bar{c}_i}(2-\beta_i)\beta_i(b_i + m_c)^2 > \frac{1}{2\bar{c}_i}(2-\beta_i)\beta_i b_i^2 = \mathcal{U}_i^B$ as $m_c > 0$ and $b_i \geq 0$ by assumption ((A2) and (A3) in Appendix A.2). For the Streak scheme: $\mathcal{U}_i^S - \mathcal{U}_i^B = \sum_p^{P-1} q_{i,p}(\mathcal{U}_{i,p}^S - \hat{v}_{i,p}\mathcal{F}_{i,p}^S - \mathcal{U}_i^B) + q_{i,P}(\mathcal{U}_{i,P}^S - \mathcal{U}_i^B)$ ((A2) and (A8) in Appendix A.2) can be transformed to $\mathcal{U}_i^S - \mathcal{U}_i^B = q_{i,p}(\mathcal{U}_{i,1}^S - \mathcal{U}_i^B) + \sum_{p=2}^P q_{i,p}(\mathcal{U}_{i,p}^S - \hat{v}_{i,p-1}\mathcal{F}_{i,p-1}^S - \mathcal{U}_i^B)$. We now show that every term in the brackets is strictly positive. Clearly, $\mathcal{U}_{i,1}^S = \frac{1}{2\bar{c}_i}(2-\beta_i)\beta_i(b_i + \hat{v}_{i,1})^2 > \frac{1}{2\bar{c}_i}(2-\beta_i)\beta_i b_i^2 = \mathcal{U}_i^B$. For any $p \geq 2$, $\mathcal{U}_{i,p}^S - \hat{v}_{i,p-1}\mathcal{F}_{i,p-1}^S - \mathcal{U}_i^B$ simplifies to $\frac{1}{2\bar{c}_i}\beta_i\left((2-\beta_i)(2b_i\hat{v}_{i,p} + \hat{v}_{i,p}^2) - 2b_i\hat{v}_{i,p-1} - 2\hat{v}_{i,p-1}^2\right)$, which is strictly positive if $\hat{v}_{i,p-1} < \frac{1}{2}\left(\sqrt{b_i^2 + 4b_i\hat{v}_{i,p} + 2\hat{v}_{i,p}^2} - b_i\right)$. This condition is always fulfilled as $\hat{v}_{i,p-1} = \mathcal{U}_{i,p}^S - \mathcal{U}_{i,1}^S = \frac{1}{2\bar{c}_i}(2-\hat{\beta}_i)\hat{\beta}_i(2b_i\hat{v}_{i,p} + \hat{v}_{i,p}^2 - 2b_i\hat{v}_{i,1} - \hat{v}_{i,1}^2) \leq \frac{2b_i\hat{v}_{i,p}+\hat{v}_{i,p}^2}{2(b_i+\hat{v}_{i,p})} < \frac{1}{2}\left(\sqrt{b_i^2 + 4b_i\hat{v}_{i,p} + 2\hat{v}_{i,p}^2} - b_i\right)$. Therefore, both the Constant and Streak incentive scheme increase an agent's expected utility. ■

A.4 Comparative Statics

The proof of all three results follows at the end of the section. A.4.1.

Result R1 (Comparative Statics regarding b_i') *The threshold* $b_i'(\hat{\beta}_i, \bar{c}_i, m_c, m_s)$ *increases in* $\bar{c}$ *and* m_c *and decreases in* $\hat{\beta}_i$ *and* m_s*.*

The threshold b_i' does not depend on β_i as an agent's choice depends on her perceived but not her actual short-run discount factor. This implies that naive agents ($\beta_i < \hat{\beta} = 1$), ceteris paribus, choose the same as rational agents ($\beta_i = \hat{\beta} = 1$). In contrast, (partial) sophistication ($\beta_i \leq \hat{\beta} < 1$) makes the more challenging Streak incentive scheme comparatively less appealing as $\frac{\partial b_i'}{\partial \hat{\beta}_i} < 0$, and thus pushes agents towards choosing the Constant rather than the Streak incentive scheme.

Result R2 (Comparative Statics regarding b_i^*) *The threshold* $b_i^*(\beta_i, \hat{\beta}_i, \bar{c}_i, m_c, m_s)$ *increases in* $\bar{c}$ *and* m_c *and decreases in* β_i*,* $\hat{\beta}_i$ *and* m_s*.*

The above result implies that time inconsistency has a stronger negative effect on meditation frequency under the Streak compared to the Constant incentive scheme. This is partly negated by naivety as naive agents overestimate their future meditation behavior, which positively affects actual behavior via a higher perceived option value $\hat{v}_{i,p}$ $\forall$ $p < P$.

Result R3 (Comparing b_i^* and b_i') *For all agents, it holds that* $b_i^*(\beta_i, \hat{\beta}_i, \bar{c}_i, m_c, m_s) < b_i'(\hat{\beta}_i, \bar{c}_i, m_c, m_s)$*.*

The result implies that all agents that are indifferent between the two schemes meditate more under Streak than Constant. As a result of this wedge, the meditation frequency achieved by choice is below the first-best allocation (the planner would benefit from reallocating the agents in the interval (b_i^*, b_i') to the Streak scheme). Further, it implies an asymmetry between Constant and Streak; while every agent who chooses Streak meditates more under Streak than Constant, not every agent who chooses Constant necessarily meditates more under Constant than Streak.

A.4.1 Proofs of Comparative Statics results

Proof of Result R1 (Comparative Statics regarding b_i') ← Recall that $\hat{\mathcal{U}}_i^C = \frac{\beta_i}{2\bar{c}_i}(2 - \hat{\beta}_i)\hat{\beta}_i(b_i + m_c)^2$ (A4) and $\hat{\mathcal{U}}_i^S = \frac{\beta_i}{2\bar{c}_i}(2 - \hat{\beta}_i)\hat{\beta}_i(b_i + \hat{v}_{i,1})^2$ (A7). As $\frac{\partial(\hat{\mathcal{U}}_i^S - \hat{\mathcal{U}}_i^C)}{\partial m_s} > 0$

and $\frac{\partial(\hat{\mathcal{U}}_i^S-\hat{\mathcal{U}}_i^C)}{\partial m_c} < 0$, b_i' decreases in m_s and increases in m_c. Note that $b_i = b_i'$ implies that $\hat{v}_{i,1} = m_c$. Therefore, b_i' increases in $\bar{c}_i$ if $\frac{\hat{v}_{i,1}}{\partial \bar{c}_i} < 0$. The proof is by contradiction. Assume that $\frac{\partial \hat{v}_{i,1}}{\partial \bar{c}_i} \geq 0$. Then $\frac{\partial \hat{v}_{i,1}}{\partial \bar{c}_i} = -\frac{1}{2\bar{c}_i^2}(2-\hat{\beta}_i)\hat{\beta}_i(2b_i(\hat{v}_{i,2}-\hat{v}_{i,1}) + \hat{v}_{i,2}^2 - \hat{v}_{i,1}^2) + \frac{1}{2\bar{c}_i}(2-\hat{\beta}_i)\hat{\beta}_i(2b_i(\frac{\partial \hat{v}_{i,2}}{\partial \bar{c}_i} - \frac{\partial \hat{v}_{i,1}}{\partial \bar{c}_i}) + 2\hat{v}_{i,2}\frac{\partial \hat{v}_{i,2}}{\partial \bar{c}_i} - 2\hat{v}_{i,1}\frac{\partial \hat{v}_{i,1}}{\partial \bar{c}_i}) \geq 0$ implies that $\frac{\partial \hat{v}_{i,2}}{\partial \bar{c}_i} > 0$ as $\hat{v}_{i,p} > 0 \ \forall \ p$ (Proof of Proposition 1) and $\hat{v}_{i,k} > \hat{v}_{i,p} \ \forall \ k > p$ (Proof of Proposition 2). Sequentially, it follows that $\frac{\partial \hat{v}_{i,p}}{\partial \bar{c}_i} > 0 \ \forall \ p \geq 3$. However, $\frac{\partial \hat{v}_{i,P}}{\partial \bar{c}_i} = \frac{\partial m_s}{\partial \bar{c}_i} = 0$, yielding a contradiction. Therefore, $\frac{\partial \hat{v}_{i,1}}{\partial \bar{c}_i} < 0$, so b_i' increases in $\bar{c}_i$. Similarly, b_i' decreases in $\hat{\beta}_i$ if $\frac{\hat{v}_{i,1}}{\partial \hat{\beta}_i} > 0$. The proof is again by contradiction. Assume that $\frac{\partial \hat{v}_{i,1}}{\partial \hat{\beta}_i} \leq 0$. Then $\frac{\partial \hat{v}_{i,1}}{\partial \hat{\beta}_i} = \frac{1}{2\bar{c}_i}(2-2\hat{\beta}_i)(2b_i(\hat{v}_{i,2}-\hat{v}_{i,1})+\hat{v}_{i,2}^2-\hat{v}_{i,1}^2)+\frac{1}{2\bar{c}_i}(2-\hat{\beta}_i)\hat{\beta}_i(2b_i(\frac{\partial \hat{v}_{i,2}}{\partial \hat{\beta}_i}-\frac{\partial \hat{v}_{i,1}}{\partial \hat{\beta}_i})+2\hat{v}_{i,2}\frac{\partial \hat{v}_{i,2}}{\partial \hat{\beta}_i}-2\hat{v}_{i,1}\frac{\partial \hat{v}_{i,1}}{\partial \hat{\beta}_i}) \leq 0$ implies that $\frac{\partial \hat{v}_{i,2}}{\partial \hat{\beta}_i} < 0$ as $\hat{v}_{i,p} > 0 \ \forall \ p$ (Proof of Proposition 1) and $\hat{v}_{i,k} > \hat{v}_{i,p} \ \forall \ k > p$ (Proof of Proposition 2). Sequentially, it follows that $\frac{\partial \hat{v}_{i,p}}{\partial \hat{\beta}_i} < 0 \ \forall \ p \geq 3$. However, $\frac{\partial \hat{v}_{i,P}}{\partial \hat{\beta}_i} = \frac{\partial m_s}{\partial \hat{\beta}_i} = 0$, yielding a contradiction. Therefore, $\frac{\partial \hat{v}_{i,1}}{\partial \hat{\beta}_i} > 0$, so b_i' decreases in $\hat{\beta}_i$. ■

Proof of Result R2 (Comparative Statics regarding b_i^*) ← Recall that the expected meditation frequencies under the Constant and Streak scheme equal $\mathcal{F}_i^C = \frac{\beta_i(b_i+m_c)}{\bar{c}_i}$ (cf. Section 2.2.1.) and $\mathcal{F}_i^S = \sum_{p=1}^P q_{i,p}\mathcal{F}_{i,p}^S = \sum_{p=1}^P q_{i,p}\frac{\beta_i(b_i+\hat{v}_{i,p})}{\bar{c}_i}$ (A1) with perceived option value $\hat{v}_{i,p} = \hat{\mathcal{U}}_{i,p+1}^S - \hat{\mathcal{U}}_{i,1}^S = \frac{1}{2\bar{c}_i}(2-\hat{\beta}_i)\hat{\beta}_i(b_i+\hat{v}_{i,p+1})^2 - \frac{1}{2\bar{c}_i}(2-\hat{\beta}_i)\hat{\beta}_i(b_i+\hat{v}_{i,1})^2 \ \forall \ p < P$ and $\hat{v}_{i,P} = m_s$ (cf. Appendix A.2). As $\frac{\partial(\mathcal{F}_i^S-\mathcal{F}_i^C)}{\partial m_s} > 0$ and $\frac{\partial(\mathcal{F}_i^S-\mathcal{F}_i^C)}{\partial m_c} < 0$, b_i^* decreases in m_s and increases in m_c.

For the comparative statics in β_i, $\hat{\beta}_i$ and $\bar{c}$, we split the proofs in two. First, an increase in β_i, $\hat{\beta}_i$ and $\bar{c}$ changes the frequency with which agent i is in a given streak period. As $q_{i,p+1} = q_{i,p}\mathcal{F}_{i,p}^S$, a ceteris paribus increase (decrease) in $\mathcal{F}_{i,p}^S$ for any $p < P$ increases (decreases) the frequency of being in a streak period $k > p$, $q_{i,k}$. As $\mathcal{F}_{i,k}^S > \mathcal{F}_{i,p}^S \ \forall \ k > p$ (cf. Proof of Proposition 2), this shift increases (decreases) meditation frequency. We now show that for any $p < P$, $\mathcal{F}_{i,p}^S$ increases in β_i and $\hat{\beta}_i$, and decreases in $\bar{c}$. For β_i, we have $\frac{\partial \mathcal{F}_{i,p}^S}{\partial \beta_i} > 0$ as $\hat{v}_{i,p} > 0$ (cf. Proof of Proposition 1) for all p, so that the shift increases frequency. Thus $\frac{\partial(\mathcal{F}_i^S-\mathcal{F}_i^C)}{\partial \beta_i} = \frac{1}{\bar{c}_i}\sum_{p=1}^P q_{i,p}(\hat{v}_{i,p}-m_c) + \frac{\beta_i}{\bar{c}_i}\sum_{p=1}^P \frac{\partial q_{i,p}}{\partial \beta_i}(\hat{v}_{i,p}-m_c) > 0$ for $b_i = b_i^*$ (for whom $\sum_{p=1}^P q_{i,p}(\hat{v}_{i,p}-m_c) = 0$). It follows that b_i^* decreases in β_i.

For $\hat{\beta}_i$, we have $\frac{\partial \mathcal{F}_{i,p}^S}{\partial \hat{\beta}_i} > 0$ if $\frac{\partial \hat{v}_{i,p}}{\partial \hat{\beta}_i} > 0$ for all $p < P$. Further, $\frac{\partial(\mathcal{F}_i^S-\mathcal{F}_i^C)}{\partial \hat{\beta}_i} = \frac{\beta_i}{\bar{c}_i}\sum_{p=1}^P q_{i,p}\frac{\partial \hat{v}_{i,p}}{\partial \hat{\beta}_i} + \frac{\partial q_{i,p}}{\partial \hat{\beta}_i}\hat{v}_{i,p} > 0$ if $\frac{\partial \hat{v}_{i,p}}{\partial \hat{\beta}_i} > 0$ for all $p < P$. We now show that $\frac{\partial \hat{v}_{i,p}}{\partial \hat{\beta}_i} > 0$ for all $2 \leq p < P$ by contradiction (see Proof of Result R1 for $p = 1$). Assume that $\exists p : 2 \leq p \leq P-1 : \frac{\partial \hat{v}_{i,p}}{\partial \hat{\beta}_i} \leq 0$. Define by k the lowest p for which this is the case. Sequentially for all $p \in \{k, \ldots, P-1\}$, $\frac{\partial \hat{v}_{i,p}}{\partial \hat{\beta}_i} - \frac{\partial \hat{v}_{i,k-1}}{\partial \hat{\beta}_i} = \frac{\partial(\hat{\mathcal{U}}_{i,p+1}^S-\hat{\mathcal{U}}_{i,k}^S)}{\partial \hat{\beta}_i} = \frac{1}{2\bar{c}_i}(2-2\hat{\beta}_i)(2b_i(\hat{v}_{i,p+1}-\hat{v}_{i,k})+\hat{v}_{i,p+1}^2-\hat{v}_{i,k}^2)+\frac{1}{2\bar{c}_i}(2-\hat{\beta}_i)\hat{\beta}_i(2b_i(\frac{\partial \hat{v}_{i,p+1}}{\partial \hat{\beta}_i} -$

$\frac{\partial \hat{v}_{i,k}}{\partial \hat{\beta}_i}) + 2\hat{v}_{i,p+1}\frac{\partial \hat{v}_{i,p+1}}{\partial \hat{\beta}_i} - 2\hat{v}_{i,k}\frac{\partial \hat{v}_{i,k}}{\partial \hat{\beta}_i}) \leq 0$ implies that $\frac{\partial \hat{v}_{i,p+1}}{\partial \hat{\beta}_i} < 0$ as $\hat{v}_{i,p+1} > \hat{v}_{i,k}$ (see Proof of Proposition 2), yielding a contradiction as $\frac{\partial \hat{v}_{i,P}}{\partial \hat{\beta}_i} = 0$. Therefore, $\frac{\partial \hat{v}_{i,p}}{\partial \hat{\beta}_i} > 0 \; \forall \; p \leq P-1$. Thus, $\frac{\partial(\mathcal{F}_i^S - \mathcal{F}_i^C)}{\partial \hat{\beta}_i} > 0$, so b_i^* decreases in $\hat{\beta}_i$.

Similarly, for $\bar{c}_i$, we have $\frac{\partial \mathcal{F}_{i,p}^S}{\partial \bar{c}_i} < 0$ if $\frac{\partial \hat{v}_{i,p}}{\partial \bar{c}_i} < 0$ for all p. Further, $\frac{\partial(\mathcal{F}_i^S - \mathcal{F}_i^C)}{\partial \bar{c}_i} = \frac{\beta_i}{\bar{c}_i}\sum_{p=1}^{P} q_{i,p}\frac{\partial \hat{v}_{i,p}}{\partial \bar{c}_i} + \frac{\partial q_{i,p}}{\partial \bar{c}_i}\hat{v}_{i,p} - \frac{q_{i,p}\hat{v}_{i,p}}{\bar{c}_i} < 0$ if $\frac{\partial \hat{v}_{i,p}}{\partial \bar{c}_i} < 0$ for all p. We now show that $\frac{\partial \hat{v}_{i,p}}{\partial \bar{c}_i} < 0$ for all $2 \leq p < P$ by contradiction (see Proof of Result R1 for $p = 1$). Assume that $\exists p : 2 \leq p \leq P-1 : \frac{\partial \hat{v}_{i,p}}{\partial \bar{c}_i} \geq 0$. Define by k the lowest p for which this is the case. Sequentially for all $p \in \{k, \ldots, P-1\}$, $\frac{\partial \hat{v}_{i,p}}{\partial \bar{c}_i} - \frac{\partial \hat{v}_{i,k-1}}{\partial \bar{c}_i} = \frac{\partial(\hat{\mathcal{U}}_{i,p+1}^S - \hat{\mathcal{U}}_{i,k}^S)}{\partial \bar{c}_i} = -\frac{1}{2\bar{c}_i^2}(2-\hat{\beta}_i)\hat{\beta}_i(2b_i(\hat{v}_{i,p+1} - \hat{v}_{i,k}) + \hat{v}_{i,p+1}^2 - \hat{v}_{i,k}^2) + \frac{1}{2\bar{c}_i}(2-\hat{\beta}_i)\hat{\beta}_i(2b_i(\frac{\partial \hat{v}_{i,p+1}}{\partial \bar{c}_i} - \frac{\partial \hat{v}_{i,k}}{\partial \bar{c}_i}) + 2\hat{v}_{i,p+1}\frac{\partial \hat{v}_{i,p+1}}{\partial \bar{c}_i} - 2\hat{v}_{i,k}\frac{\partial \hat{v}_{i,k}}{\partial \bar{c}_i}) \geq 0$ implies that $\frac{\partial \hat{v}_{i,p+1}}{\partial \bar{c}_i} > 0$ as $\hat{v}_{i,p+1} > \hat{v}_{i,k}$ (see Proof of Proposition 2), yielding a contradiction as $\frac{\partial \hat{v}_{i,P}}{\partial \bar{c}_i} = 0$. Therefore, $\frac{\partial \hat{v}_{i,p}}{\partial \bar{c}_i} < 0 \; \forall \; p \leq P-1$. Thus, $\frac{\partial(\mathcal{F}_i^S - \mathcal{F}_i^C)}{\partial \bar{c}_i} < 0$, so b_i^* increases in $\bar{c}_i$. ■

Proof of Result R3 (Comparing b_i^* and b_i') ← Recall that $\hat{\mathcal{U}}_i^C = \frac{\beta_i}{2\bar{c}_i}(2-\hat{\beta}_i)\hat{\beta}_i(b_i+m_c)^2$ (A4) and $\hat{\mathcal{U}}_i^S = \frac{\beta_i}{2\bar{c}_i}(2-\hat{\beta}_i)\hat{\beta}_i(b_i+\hat{v}_{i,1})^2$ (A7). Thus, $\hat{v}_{i,1} = m_c$ holds for any agent that is indifferent between choosing the Constant and Streak incentive scheme. Therefore, the meditation frequency under the Constant scheme, $\frac{\beta_i(b_i+m_c)}{\bar{c}_i}$ (cf. Section 2.2.1.), equals the meditation frequency in first streak periods under the Streak scheme, $\frac{\beta_i(b_i+\hat{v}_{i,1})}{\bar{c}_i}$ (cf. A1) for any type $i : \hat{v}_{i,1} = m_c$. As $\hat{v}_{i,k} > \hat{v}_{i,p} \; \forall \; k > p$ (Proof of Proposition 2), every agent's expected meditation frequency increases in the streak period. Therefore, it holds that $\mathcal{F}_i^S = \sum_{p=1}^{P} q_{i,p}\mathcal{F}_{i,p}^S > \mathcal{F}_i^C$ for any type $i : \hat{v}_{i,1} = m_c$. It follows that $b_i^* < b_i' \; \forall \; i$. ■

A.5 Welfare

The main text assumes that the policy maker tries to maximize average meditation frequency. Instead of frequency, a policy maker might also try to maximize aggregate welfare. This section shows that our results in the main text carry over to this setting. We do so with two key propositions, whose proof is provided later in the section.

An agent's behavior yields a per-period welfare of $\mathcal{W}_{it} = b_i - c_{it}$ if she meditates and $\mathcal{W}_{it} = 0$ if she does not meditate. Thus, welfare is only affected by meditation behavior, while any monetary transfer is irrelevant. Under the Constant incentive scheme, expected per-period welfare thus equals

$$\mathcal{W}_i^C = \int_0^{\beta_i(b_i+m_c)} (b_i - c_{it})dc_{it} = \frac{1}{2\bar{c}_i}\beta_i(b_i+m_c)((2-\beta_i)b_i - \beta_i m_c). \tag{A9}$$

The expected per-period welfare under the Streak incentive scheme equals

$$\mathcal{W}_i^S = \sum_p q_{i,p} \int_0^{\beta_i(b_i+\hat{v}_{i,p})} (b_i - c_{it}) dc_{it} = \sum_p q_{i,p} \left(\frac{1}{2\bar{c}_i} \beta_i (b_i + \hat{v}_{i,p})((2-\beta_i)b_i - \beta_i \hat{v}_{i,p}) \right). \quad \text{(A10)}$$

We now show that the single-crossing result about meditation frequency (Proposition 2) carries over to welfare.[1]

Proposition W1 (Single crossing – Welfare) *If* $m_s \leq \frac{(1-\beta_i)b_i}{\beta_i}$*, there is a threshold* $b_i^{**}(\beta_i, \hat{\beta}_i, \bar{c}_i, m_c, m_s)$ *such that for* $b_i < b_i^{**}$ *the expected welfare is larger under the Constant scheme, and vice-versa for* $b_i > b_i^{**}$*.*

Just like the single-crossing result for meditation frequency, this proposition implies that welfare can be increased if agents with high meditation benefits are incentivized with the Streak and agents with low benefits with the Constant incentive scheme. This time, however, an extra condition is in place, namely that incentives are not so high as to induce excessively high meditation rates compared to what is optimal from a welfare perspective. Specifically, the condition requires that the inefficiency $(1-\beta_i)b_i$ is sufficiently large compared to the Streak reward. Arguably, the condition is not very restrictive for the following two reasons. First, it is only a sufficient condition and slight overmeditation in last streak periods would be overcompensated by less undermeditation in earlier streak periods. Second, if agents are not time-inconsistent, then there is little reason for a policy maker to even intervene in the first place. If the inefficiency is relatively too small, then welfare under a Streak incentive scheme no longer monotonously increases in meditation benefits as agents with high benefits meditate excessively in last streak periods.

The next step is to consider how agents choose their incentive schemes. As agents only care about their utility, their decision making is identical irrespective of whether the policy maker seeks to maximize meditation frequency or welfare, which implies that Proposition 3 still holds under a welfare objective: Here, too, agents sort in the two schemes according to threshold b_i'. As with the frequency objective, also for welfare there is a wedge between the welfare-maximizing threshold b_i^{**} and the actual separating threshold b_i'. As for frequency, we can easily infer that $b_i^{**} < b_i'$. Recall that any agent that is indifferent between choosing the Constant and Streak incentive scheme has $\hat{v}_{i,1} = m_c$

[1] As for frequency, we assume that not for all types welfare is higher under Constant nor Streak in order to make the policy maker's decision between exogenous assignment and choice non-trivial.

(see Appendix A.2). The welfare created under the Constant scheme is thus equal to the welfare in first streak periods under the Streak scheme. As welfare increases in the streak period (Proof of Proposition W1), all indifferent agents therefore create a higher welfare under Streak than Constant, implying $b_i^{**} < b_i'$. Agents in the interval (b_i^{**}, b_i') therefore choose Constant but ought to choose Streak from an overall welfare perspective. Interestingly, this wedge is smaller for welfare than frequency, i.e. $b_i^* < b_i^{**}$ as $\mathcal{F}_{i,p}^S$ (cf. A1) increases linearly in $\hat{v}_{i,p}$ while $\mathcal{W}_{i,p}^S$ (cf. (A10)) increases only concavely in $\hat{v}_{i,p}$.

Given these results, we can now derive the welfare consequences of offering agents a choice between the Constant and Streak incentive scheme. Similar to meditation frequency, there are a two sufficient conditions under which the chosen allocation is assured to perform better than the random allocation:

Condition W1. The Constant scheme yields weakly higher average welfare than the Streak incentive scheme in the random allocation, i.e. $\sum_i \mathcal{W}_i^C \geq \sum_i \mathcal{W}_i^S$.

Condition W2. Agents' benefits, time preferences and cost functions are independent from each other, and the share α in the random allocation is at least as high as the share endogenously arising in the chosen allocation, i.e. $\alpha \geq \frac{|\{i:b_i<b_i'\}|}{N}$.

Proposition W2 (Welfare) *If Condition W1 or Condition W2 are satisfied and* $m_s < \frac{(1-\beta_i)b_i}{\beta_i}$ $\forall$ i, *then letting agents choose their incentive scheme yields a higher average expected welfare than exogenously assigning agents to incentive schemes.*

The proposition implies that offering agents a choice between Constant and Streak not only increases meditation frequency but also welfare if certain very similar conditions are met and the inefficiency in agents' baseline behavior is sufficiently large. Their similarities justify using frequency as a more easily observed proxy for welfare.

A.5.1 Proofs Welfare

Proof of Proposition W1 (Single crossing – Welfare) ← Recall that the expected per-period welfare at $t = 0$ under the Constant and Streak incentive scheme equal $\mathcal{W}_i^C = \frac{1}{2\bar{c}_i}\beta_i(b_i + m_c)((2-\beta_i)b_i - \beta_i m_c)$ and $\mathcal{W}_i^S = \sum_p q_{i,p}\left(\frac{1}{2\bar{c}_i}\beta_i(b_i + \hat{v}_{i,p})((2-\beta_i)b_i - \beta_i\hat{v}_{i,p})\right)$ ((A9) and (A10)). We now show that for any type $i : m_s \leq \frac{(1-\beta_i)b_i}{\beta_i}$, expected welfare is equal under the Constant and Streak incentive scheme if and only if $b_i = b_i^{**}(\beta_i, \hat{\beta}_i, \bar{c}_i, m_c, m_s)$, and that $\mathcal{W}_i^S > \mathcal{W}_i^C$ if and only if $b_i > b_i^{**}$.

First, following Proof of Proposition 2, we assign, for any type $i : m_s \leq \frac{(1-\beta_i)b_i}{\beta_i}$, $b_i^{**} = 0$ if $\mathcal{W}_i^S > \mathcal{W}_i^C$ for all $\tilde{b}_i \in (0, \bar{c}_i - \max\{m_c, m_s\})$ and $b_i^{**} = \bar{c}_i - \max\{m_c, m_s\}$ if $\mathcal{W}_i^C > \mathcal{W}_i^S$ for all $\tilde{b}_i \in (0, \bar{c}_i - \max\{m_c, m_s\})$.

Second, we show that for any type $i : m_s \leq \frac{(1-\beta_i)b_i}{\beta_i}$ it holds that $\mathcal{W}_i^S < \mathcal{W}_i^C$ if $\sum_p q_{i,p}\hat{v}_{i,p} \leq m_c$ and $\frac{\partial \mathcal{W}_i^S}{\partial b_i} > \frac{\partial \mathcal{W}_i^C}{\partial b_i}$ if $\sum_p q_{i,p}\hat{v}_{i,p} \geq m_c$. Note that for any $i : \sum_p q_{i,p}\hat{v}_{i,p} \leq m_c$ $\mathcal{W}_i^S$ is maximized if $\sum_p q_{i,p}\hat{v}_{i,p} = m_c$ as $\hat{v}_{i,k} > \hat{v}_{i,p}\ \forall\ k > p$ (Proof of Proposition 2) and $\frac{\partial \mathcal{W}_{i,p}^S}{\partial \hat{v}_{i,p}} = \frac{\beta_i}{\bar{c}_i}((1-\beta_i)b_i - \beta_i\hat{v}_{i,p}) \geq 0\ \forall\ p$. Subtracting (A9) from (A10) and substituting $\sum_p q_{i,p}\hat{v}_{i,p} = m_c$ yields $\mathcal{W}_i^S - \mathcal{W}_i^C = \frac{\beta^2}{2\bar{c}_i}(m_c^2 - \sum_p q_{i,p}\hat{v}_{i,p}^2) = \frac{\beta^2}{2\bar{c}_i}((\sum_p q_{i,p}\hat{v}_{i,p})^2 - \sum_p q_{i,p}\hat{v}_{i,p}^2) < 0$.

Further, we show that $\frac{\partial \mathcal{W}_i^S}{\partial b_i} > \frac{\partial \mathcal{W}_i^C}{\partial b_i}$ if $\sum_p q_{i,p}\hat{v}_{i,p} \geq m_c$. For Constant, one obtains $\frac{\partial \mathcal{W}_i^C}{\partial b_i} = \frac{\beta_i}{\bar{c}_i}((1-\beta_i)(b_i + m_c) + b_i)$. For Streak, we take two steps. First, welfare under a given streak period p increases in b_i by $\frac{\partial \mathcal{W}_{i,p}^S}{\partial b_i} = \frac{\beta_i}{\bar{c}_i}\left((1-\beta_i)(b_i + \hat{v}_{i,p}) + b_i + \frac{\partial \hat{v}_{i,p}}{\partial b_i}((1-\beta_i)b_i - \beta_i\hat{v}_{i,p})\right)$. As $\frac{\partial \hat{v}_{i,p}}{\partial b_i} > 0$ (Proof of Proposition 2) and $\hat{v}_{i,p} \leq m_s \leq \frac{(1-\beta_i)b_i}{\beta_i}$ for all $p \leq P-1$ by assumption, $\sum_p q_{i,p}\frac{\partial(\mathcal{W}_{i,p}^S - \mathcal{W}_i^C)}{\partial b_i} > 0$ if $\sum_p q_{i,p}\hat{v}_{i,p} \geq m_c$. Second, an increase in b_i changes the frequency with which agent i is in a given streak period. As $q_{i,p+1} = q_{i,p}\mathcal{F}_{i,p}^S$, a ceteris paribus increase in $\mathcal{F}_{i,p}^S$ for any $p < P$ increases the frequency of being in a streak period $k > p$, $q_{i,k}$. As $\hat{v}_{i,k} > \hat{v}_{i,p}\ \forall\ k > p$ (Proof of Proposition 2) and $\hat{v}_{i,p} \leq m_s \leq \frac{(1-\beta_i)b_i}{\beta_i}$ by assumption, $\frac{\partial \mathcal{W}_{i,p}^S}{\partial \hat{v}_{i,p}} = \frac{\beta_i}{\bar{c}_i}((1-\beta_i)b_i - \beta_i\hat{v}_{i,p}) > 0$, so that this shift increases expected welfare.

Taken together, expected welfare is equal under the Constant and Streak incentive scheme if and only if $b_i = b_i^{**}(\beta_i, \hat{\beta}_i, \bar{c}, m_c, m_s)$, and it is higher (lower) under the Streak than the Constant incentive scheme if and only if $b_i > b_i^{**}$ ($b_i < b_i^{**}$). ■

Proof of Proposition W2 (Welfare) ← The proof precisely follows that of Proposition 4 except for substituting $\mathcal{F}$ by $\mathcal{W}$ and referring to Proof of Proposition W1 rather than Proof of Proposition 2. ■

A.6 Optimal Rewards

Our results so far did not depend on whether the policy maker chooses rewards optimally and only required a single-crossing property, posing little informational requirements on the policy maker. In contrast, this section assumes that the policy maker knows agents' type distribution (while keeping agents' types private information), allowing us to analyze optimal reward levels. This analysis is trivial for a frequency-maximizing policy maker; any m_c and m_s that induces every agent to meditate in every period is optimal. We therefore concentrate our optimality analysis on a setting in which the policy maker aims to maximize welfare.

We first note that if the policy maker assigns agents exogenously, she will assign every agent into the same scheme, namely the one that yields higher aggregate welfare under the optimal reward levels. It is straightforward to derive the optimal Constant reward given (A9). As $\frac{\partial \sum_i \mathcal{W}_i^C}{\partial m_c} = \sum_i \frac{\beta_i}{\bar{c}_i}\Big((1-\beta_i)b_i - \beta_i m_c\Big)$, the optimal Constant reward in an exogenous allocation equals

$$m_c^{**} = \frac{\sum_i \frac{\beta_i}{\bar{c}_i}(1-\beta_i)b_i}{\sum_i \frac{\beta_i}{\bar{c}_i}\beta_i}, \tag{1}$$

which is a weighted average of the individually optimal rewards $m_{c,i}^{**} = \frac{(1-\beta_i)b_i}{\beta_i}\ \forall\ i$. Unfortunately, there does generally not exist a closed-form solution for the welfare-maximizing Streak reward. It depends on the type distribution whether the optimal Constant or Streak incentive scheme yields higher aggregate welfare in an exogenous allocation.[2]

In many cases, a policy maker can increase average welfare by offering both the Constant and Streak schemes, keeping reward levels the same as in the exogenous allocation (cf. Proposition W2). However, knowing the type distribution, a policy maker can do better by offering a different menu of incentives. This menu features a larger spread between the Streak and Constant reward compared to optimal levels in the exogenous allocation as the policy maker no longer needs to accommodate reward levels to all individuals but can instead tailor the size of incentives to each group individually (though restricted by an incentive-compatibility constraint).

A.7 Externality

The previous analysis assumed that without extra monetary incentives agents meditate inefficiently due to time inconsistency issues. In addition to (or instead of) this internality, there might also be an externality at play. In this section, we assume that agents exert a positive linear externality $e > 0$ on the policy maker (e.g. due to lowering expected health care costs) whenever they meditate. Importantly, agents do not take this positive

[2] In practical terms, however, the optimal Constant scheme is likely to yield higher aggregate welfare than the optimal Streak scheme for two reasons. First, the Constant scheme typically yields a lower spread in individuals' meditation frequencies – a pattern that we also observe in our data (cf. Section 4.1.) – and is therefore more robust to individuals' heterogeneity. Second, for a given meditation frequency, a Constant scheme yields higher welfare than a Streak scheme. This is because welfare loss is convex in the degree of inefficiency, which fluctuates by streak period but not in Constant.

externality into account.

We now discuss whether and how our previous results change in this setting. Note that as agents do not take the positive externality into account, their meditation behavior as well as their actual and perceived utilities are unaltered by the introduction of the externality. This implies that all our results in the main text (cf. Propositions 1 to 4) are unchanged.

In contrast, our results about welfare in Appendix A.5 do slightly change when introducing an externality. An agent's behavior now yields a per-period welfare of $\mathcal{W}_{it} = b_i + e - c_{it}$ (rather than $\mathcal{W}_{it} = b_i - c_{it}$) if she meditates. Under the Constant incentive scheme, expected per-period welfare thus now equals

$$\mathcal{W}_i^C = \int_0^{\beta_i(b_i+m_c)} (b_i + e - c_{it}) dc_{it} = \frac{1}{2\overline{c}_i}\beta_i(b_i + m_c)((2-\beta_i)b_i + 2e - \beta_i m_c), \tag{2}$$

under the Constant and

$$\mathcal{W}_i^S = \sum_p q_{i,p} \int_0^{\beta_i(b_i+\hat{v}_{i,p})} (b_i + e - c_{it}) dc_{it} = \sum_p q_{i,p} \left(\frac{1}{2\overline{c}_i}\beta_i(b_i + \hat{v}_{i,p})((2-\beta_i)b_i + 2e - \beta_i \hat{v}_{i,p}) \right). \tag{3}$$

under the Streak incentive scheme. Note that these expressions coincide with (A9) respectively (A10) except for the added externality terms. Because of this similarity, the single crossing result (cf. Proposition W1) carries over to this setting, albeit with slight changes. First, adding an externality lowers the welfare-maximizing threshold to b_i^{***}, i.e. $b_i^{***} < b_i^{**}$ as it adds a linear component in $\hat{v}_{i,p}$ ($\frac{e}{\overline{c}_i}\hat{v}_{i,p}$) to the otherwise concave expression for welfare in a given streak period p (cf. Proof of Proposition W1). Second, the added externality weakens the sufficient condition about the maximal streak reward from $m_s \leq \frac{(1-\beta_i)b_i}{\beta_i}$ to $m_s \leq \frac{(1-\beta_i)b_i+e}{\beta_i}$, thus allowing for a wider range of streak reward sizes before overmeditation might occur. As agents' choices are unaffected by the introduction of an externality, these results imply that the chosen allocation is assured to perform better than the random allocation in terms of welfare if Condition A1 or Condition 2 are satisfied and $m_s \leq \frac{(1-\beta_i)b_i+e}{\beta_i}\ \forall\ i$.

To sum up, introducing an externality leaves results unchanged if the policy maker aims to maximize meditation frequency and increases the menu of incentive schemes under which choice increases welfare.

B Empirical Appendix

B.1 Choice is predicted to do better than Random

The average frequencies under the chosen and random allocations are $\mathcal{F}^{Ch} = \frac{1}{N}(\sum_i \mathcal{F}_i^C + \sum_{i:b_i \geq b_i'}(\mathcal{F}_i^S - \mathcal{F}_i^C))$ and $\mathcal{F}^{Ra} = \frac{1}{N}(\sum_i \alpha \mathcal{F}_i^C + \sum_i (1-\alpha)\mathcal{F}_i^S)$ where α is the proportion of agents assigned to Constant. A simple reformulation yields that $\mathcal{F}^{Ch} > \mathcal{F}^{Ra}$ if and only if $\frac{1}{N}\sum_{i:b_i \geq b_i'}(\mathcal{F}_i^S - \mathcal{F}_i^C) > (1-\alpha)\frac{1}{N}\sum_i(\mathcal{F}_i^S - \mathcal{F}_i^C)$. Therefore, the chosen allocation is predicted to outperform the random allocation whenever the difference in average effect size between Streak and Constant (under the random allocation), $\frac{1}{N}\sum_i(\mathcal{F}_i^S - \mathcal{F}_i^C)$, is below $\frac{\frac{1}{N}\sum_{i:b_i \geq b_i'}(\mathcal{F}_i^S - \mathcal{F}_i^C)}{1-\alpha}$. This bound can be arbitrarily close to zero, and this is why our Condition 1, which we want to hold for any type distribution, imposes $\sum_i \mathcal{F}_i^C \geq \sum_i \mathcal{F}_i^S$. This being said, one can calculate a bound specific to any given type distribution and empirical setting.

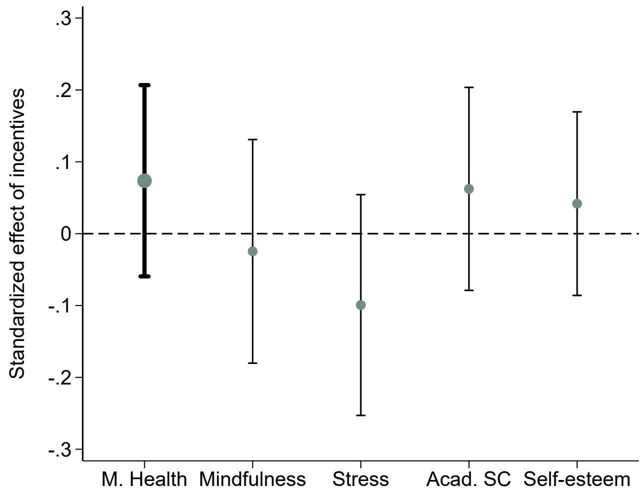
To estimate the size of this threshold in the context of our experiment, we first rewrite the numerator of the threshold as $\frac{1}{N}\sum_{i:b_i \geq b_i'}(\mathcal{F}_i^S - \mathcal{F}_i^C) = \gamma \mathbb{E}_{i:b_i \geq b_i'}(\mathcal{F}_i^S - \mathcal{F}_i^C)$ where $\mathbb{E}$ is the conditional average and γ is the fraction of subjects with $b_i \geq b_i'$ (these are the subjects who chose Streak, thus $\gamma = 0.56$ in our experiment). We then predict the expected meditation frequencies for participants that chose Streak using the relationships between the assigned incentive scheme, meditation frequency and elicited meditation benefits in Random. To be precise, we run a regression of meditation frequency on meditation benefits, assigned incentive scheme and their interaction term for the participants in Random (cf. Table B6). We then use the resulting coefficients to predict expected meditation frequencies for subjects in Choice. The predicted average frequencies for those who chose Streak (56%) are 23.94 under Streak and 22.79 under Constant; the proportion of participants assigned to Constant (α) is 43%. This gives an estimated bound of $0.56*(23.94-22.79)/(1-0.43) \approx 1.13$. Thus, choice is predicted to perform better than Random in our experiment as long as Streak does not lead to meditation frequencies greater than Constant by more than 1.13 days in the Random treatment. Given that the point estimate of the difference in performance between Streak and Constant is merely 0.04 (and insignificant) in our sample, we seem to be safely within this bound.

B.2 Mental Health Outcomes

This section discusses the effects of monetarily incentivizing subjects to meditate on several mental health outcomes. We elicited these outcomes in the baseline and endline surveys.

Figure B1 depicts the standardized effects of incentives along several mental-health-related dimensions. The figure shows that monetary incentives led to an increase of 0.07 standard deviations in our combined measure of mental health, which is, however, not significant ($p = 0.277$). Splitting up the combined measure into mindfulness level, perceived stress, academic self-concept and self-esteem, we observe that the incentives did not lead to a significant change in any of these measures.

Figure B1: Effect of Incentives on Mental Health Outcomes



Note: The figure depicts the standardized net effects of incentives on self-reported mental health, mindfulness, perceived stress, academic self-concept and self-esteem, controlling for baseline levels. Mental health is a combined measure of the other four outcome variables and is computed via a factor analysis. The black bars indicate 95% confidence intervals.

B.3 Long-term Effects on Meditation Frequency

While our experiment was not designed to measure long-term effects of monetary incentives on meditation behavior, data from our 100-day follow-up survey allow us to estimate post-intervention effects. This analysis is complicated by uneven attrition in the control group and incentivized treatments.[3] However, if we assume that every subject who did not report their meditation frequency does not meditate in a typical week,[4] we find that there is no significant effect of monetary incentives on weekly meditation frequency 100 days after the end of the intervention (0.69 vs. 0.56, $p = 0.342$ in the two-sided t-test). The lack of long-term effects is in line with the great majority of papers in the literature (e.g. Acland and Levy, 2015 & März, 2019; Carrera et al., 2018; Woerner, 2021).

[3] Only 61% of subjects in the control group reported their weekly meditation frequency in a typical week, while 77% did so in the incentivized treatments.

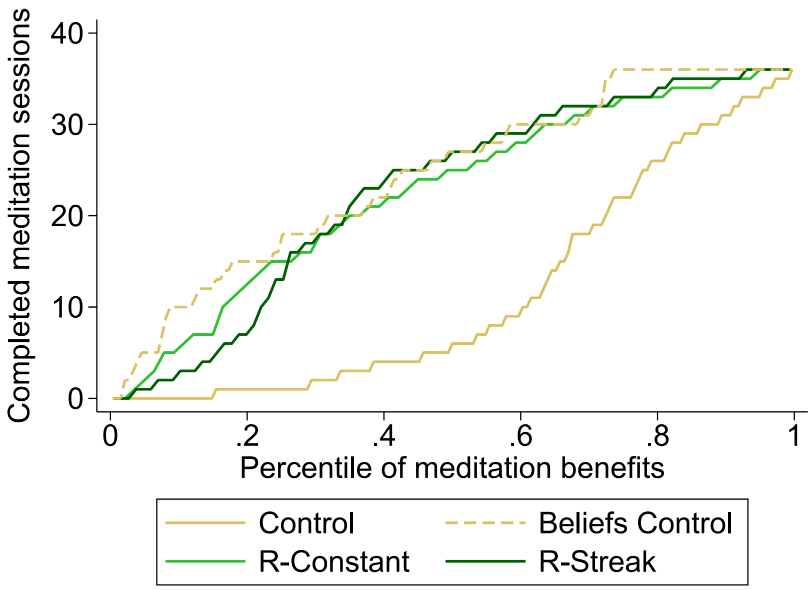
[4] This assumption is conservative, yet somewhat reasonable given that already 61% of subjects who completed the follow-up survey reported a meditation frequency of zero, and subjects who did not complete the follow-up survey completed much fewer meditation sessions during the intervention period (7.53 vs. 21.63, $p = 0.000$ in the two sided t-test), and had marginally significantly lower meditation benefits at baseline ($p = 0.079$ in the two sided t-test) than subjects who did report their weekly meditation frequency at follow-up.

B.4 Additional Tables and Figures

Table B1: Timeline of Experiment

Event	1st wave	2nd wave
Baseline survey	Oct 28, 2019 – Nov 1, 2019	Feb 3, 2020 – Feb 7, 2020
First meditation day	Nov 04, 2019	Feb 10, 2020
1st feedback email	Nov 13, 2019	Feb 19, 2020
2nd feedback email	Nov 20, 2019	Feb 28, 2020
3rd feedback email	Dec 01, 2019	Mar 08, 2020
Final feedback email	Dec 10, 2019	Mar 17, 2020
Endline survey	Dec 10, 2019 – Dec 14, 2019	Mar 17, 2020 – Mar 21, 2020
Meditation platform	Dec 10, 2019 – Dec 31, 2020	Mar 17, 2020 – Dec 31, 2020
Follow-up survey	Mar 19, 2020 – Mar 25, 2020	Jun 25, 2020 – Jul 1, 2020

Figure B2: Meditation Frequency over Percentiles of Meditation Benefits



Note: The figure shows the meditation frequencies over percentiles of meditation *Benefits* for subjects in *Control* and *Random*, split by incentive scheme. It also depicts beliefs about meditation frequency over percentiles in *Control*.

Table B2: Summary Statistics By Wave

	(1) *First Wave*	(2) *Second Wave*	(3) p-value (1)$vs.$(2)
Demographics			
Age	21.05	21.33	0.31
Female (0/1)	0.73	0.64	0.02
Bachelor student (0/1)	0.82	0.80	0.45
Mental Health			
Mindfulness (1-6)	3.23	3.30	0.24
Perceived stress (0-40)	20.42	20.02	0.48
Academic self-concept (1-7)	4.49	4.38	0.25
Self-esteem (10-40)	28.10	27.80	0.52
Economic Preferences			
Investment in risky asset (0-40)	22.56	22.61	0.96
Short-run discount factor β	0.96	0.98	0.03
Long-run discount factor δ	0.95	0.96	0.56
Desirability of Control (1-7)	4.57	4.56	0.84
Meditation Behavior			
Intrinsic motivation to meditate (1-7)	4.67	4.64	0.79
Current meditation frequency (days/wk)	0.39	0.48	0.39
Meditation frequency goal (days/wk)	3.26	3.25	0.98
Observations	288	211	

Note: Columns 1 and 2 depict means of first-wave respectively second-wave subjects. Column 3 shows the p-values from t-tests or tests of proportions with respect to the differences in means. Numbers for the short-run discount factors only include 430 observations as 59 subjects did not complete the endline survey and we excluded 10 subjects that had multiple switching points in one of the two multiple price lists.

Table B3: Alternative Specifications

	Effect of Incentives Constant	Streak	Effect of *Choice*
Mean of reference group	11.50	11.50	22.72
Wilcoxon-Mann-Whitney test	11.203	11.245	-3.975
	[0.000]	[0.000]	[0.017]
Permutation t-test	11.203	11.245	-3.975
	[0.000]	[0.000]	[0.003]

Note: The table shows estimates with p-values in brackets from Wilcoxon-Mann-Whitney and permutation t-tests for the effect of incentives (Constant and Streak) as well as the effect of *Choice*. The dependent variable is the number of completed meditation sessions during the 36-day intervention period. The reference group in the first two columns is subjects in *Control*, the reference group in the last two columns is subjects in *Random*. Robust standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B4: Effect of Incentives and *Choice* by Wave

	Effect of Incentives		Effect of *Choice*	
Margin	Intensive	Extensive	Intensive	Extensive
Mean of reference group	11.032	0.849	22.796	0.849
Constant	12.675***	0.936**		
	(2.071)	(0.450)		
Streak	11.045***	0.735**		
	(2.107)	(0.357)		
Choice			-4.551**	-0.611**
			(1.809)	(0.303)
Wave	1.065	-0.010	-0.167	0.054
	(1.888)	(0.240)	(1.828)	(0.397)
Constant * Wave	-3.496	-0.142		
	(3.251)	(0.658)		
Streak * Wave	0.443	0.211		
	(3.140)	(0.581)		
Choice * Wave			1.415	0.166
			(2.758)	(0.486)
Observations	328	328	334	334
(Pseudo-) R^2	0.190	0.079	0.026	0.042

Note: The table shows OLS estimates in the first and third colums and probit estimates in the second and fourth columns. The dependent variable in the first and third columns is the number of completed meditation sessions during the 36-day intervention period. The dependent variable in the second and fourth columns indicates whether a subject completed at least one meditation session during the intervention period. The reference group in the first two columns is first-wave subjects in *Control*, the reference group in the last two columns is first-wave subjects in *Random*. Robust standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B5: Effect of Incentives and *Choice* by Gender

	Effect of Incentives		Effect of *Choice*	
Margin	Intensive	Extensive	Intensive	Extensive
Mean of reference group	10.804	0.839	17.978	0.911
Constant	7.435**	0.065		
	(2.956)	(0.081)		
Streak	6.946**	0.077		
	(2.968)	(0.075)		
Choice			-3.563	-0.024
			(2.496)	(0.061)
Female	1.050	0.014	6.556***	0.080*
	(1.962)	(0.060)	(2.034)	(0.044)
Constant * Female	5.325	0.081		
	(3.484)	(0.088)		
Streak * Female	5.679	0.055		
	(3.476)	(0.084)		
Choice * Female			-0.276	-0.052
			(2.952)	(0.067)
Observations	328	328	334	334
(Pseudo-) R^2	0.213	0.052	0.078	0.029

Note: The table shows OLS estimates. The dependent variable in the first and third columns is the number of completed meditation sessions during the 36-day intervention period. The dependent variable in the second and fourth columns indicates whether a subject completed at least one meditation session during the intervention period. The reference group in the first two columns is male subjects in *Control*, the reference group in the last two columns is male subjects in *Random*. Robust standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B6: Net Effect of Streak by Meditation Benefits

	(1)
Standardized Meditation Benefits	0.327
	(1.345)
Streak	0.218
	(1.748)
Standardized Meditation Benefits * Streak	3.796**
	(1.860)
Constant	22.714***
	(1.293)
Observations	163
R^2	0.069

Note: The table shows OLS estimates for the net effect of Streak compared to Constant by *Benefits* for subjects in *Random*. Robust standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B7: Heterogeneous Effects of *Choice*

	(1)	(2)
Standardized Desirability of Control	-0.023	
	(0.880)	
Meditate at baseline		-2.894
		(2.229)
Choice	-3.707***	-5.578***
	(1.365)	(1.513)
Standardized Desirability of Control * *Choice*	-1.119	
	(1.275)	
Meditate at baseline * *Choice*		8.471**
		(3.364)
Constant	22.724***	23.381***
	(0.903)	(1.004)
Observations	334	334
R^2	0.030	0.043

Note: The table shows OLS estimates for the effect of *Choice* interacted with the standardized desirability of control measure (1) and a non-zero meditation frequency at baseline (2). The reference group is subjects in *Random*. Robust standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B8: Meditation Frequency on 'Decisive Days'

	(1)	(2)	(3)
Mean of reference group	0.631	0.619	0.611
'Decisive Day'	1.187***	-0.073	-0.253
	(0.195)	(0.172)	(0.189)
Choice	-1.066***	-0.504***	-0.362
	(0.223)	(0.116)	(0.098)
'Decisive Day' * *Choice*	0.451	0.022	0.064
	(0.284)	(0.265)	(0.274)
Lagged days	0	3	7
Observations	5220	4785	4205
(Pseudo-) R^2	0.087	0.321	0.385

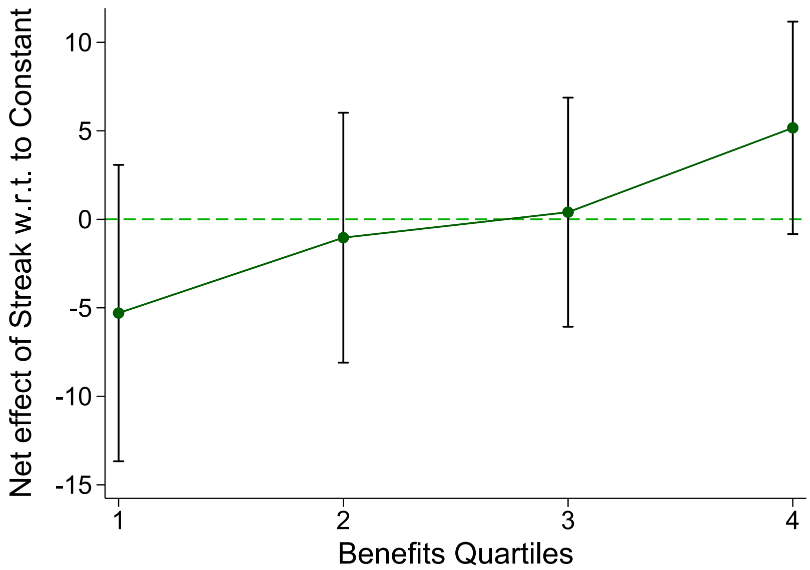
Note: The table shows logit estimates for the effect of and *Choice* as well as their interaction term for subjects who have chosen the Constant incentive scheme. The reference group is subjects in *Random*-Constant. 'Decisive Day' indicates days on which subjects could complete a 3-day streak. Robust standard errors clustered on the individual level are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B9: Conveyed Information

	(1) *Random*	(2) *Choice*	(3) p-value (1) vs. (2)
1. How much do you think that the experimenters are interested in helping you meditate as often as possible?	4.400	4.609	0.48
2. How much do you think the experimenters are interested in helping you find the meditation frequency that is best for you?	4.385	4.547	0.62
3. How knowledgeable do you think the experimenters are in giving you rewards for completing the sessions?	5.508	5.297	0.37
4. What do you think about the size of the rewards for the meditation sessions?	4.846	4.625	0.31
Observations	65	64	

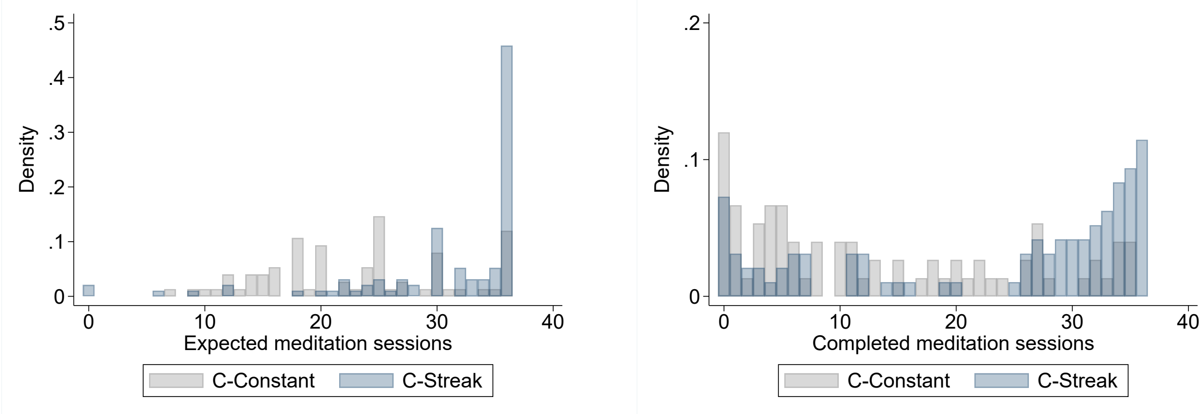
Note: Columns 1 and 2 depict means of subjects in *Random* and *Choice*, respectively. Column 3 shows the p-values from t-tests with respect to the differences in means. Answers were reported on a 7-point Likert scale in the follow-up survey by second-wave subjects only. In questions 1-3 the scale goes from 1 (absolutely not) to 7 (absolutely/very much so). In question 4 the scale goes from 1 (very low) to 7 (very high). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Figure B3: Net Effect of Streak by Meditation Benefits



Note: The figure shows the net effect of Streak compared to Constant by *Benefits* quartile for subjects in *Random*. The black bars indicate 95% confidence intervals.

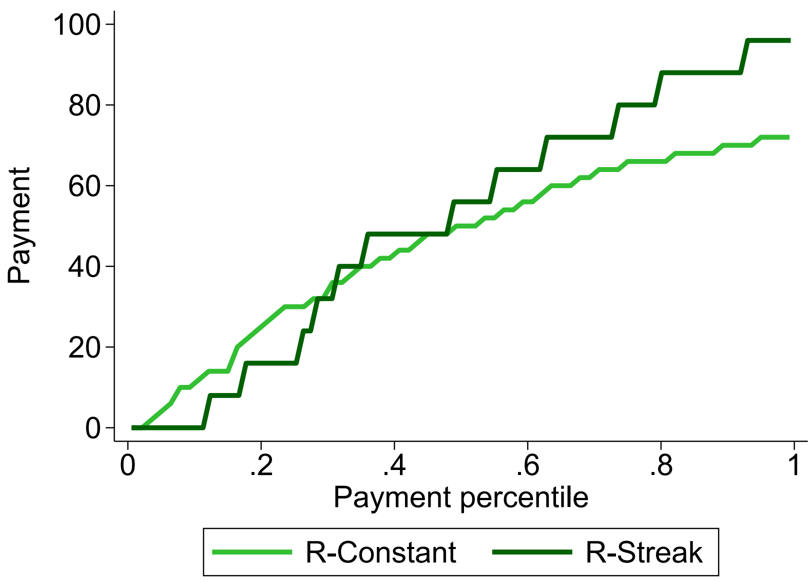
Figure B4: Sorting – Beliefs and Behavior



(a) Beliefs (b) Sessions

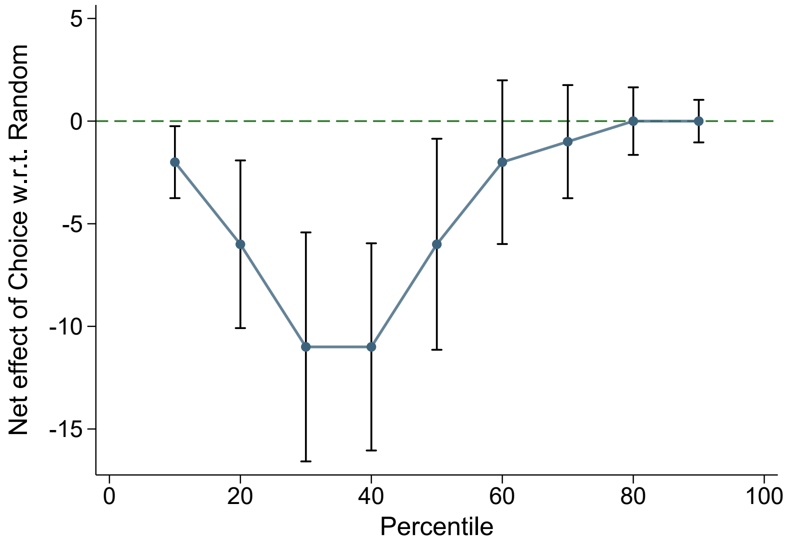
Note: The left panel depicts the distributions of expected meditation sessions by subjects who have chosen the Constant (grey) and Streak (blue) scheme. The right panel depicts the distributions of completed meditation sessions by subjects who have chosen the Constant (grey) and Streak (blue) scheme.

Figure B5: Distribution of Payments in *Random*



Note: The figure depicts the payment distributions across subjects randomly assigned to Constant and Streak.

Figure B6: Net Effect of *Choice* by Percentile



Note: The figure shows the net effect of *Choice* compared to *Random* by percentile of completed meditation sessions. The black bars indicate 95% confidence intervals.

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