

Beyond good intentions: prompting people to make plans improves follow through on important tasks

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SUMMARY. People fail to follow through on all types of important intentions, including staying fit, studying hard, and voting. These failures cost individuals and society by escalating medical costs, shrinking lifetime earnings, and reducing citizen involvement in government. Evidence is mounting, however, that prompting people to make concrete and specific plans makes people more likely to act on their good intentions. Planning prompts seem to work because scheduling tasks makes people more likely to carry them out, and also because they help people to recall in the right circumstances and in the right moment that they need to carry out the task. Prompts to make plans are simple, inexpensive, and powerful interventions that help people accomplish important tasks. Importantly, they also avoid telling people what to do, allowing people to maintain autonomy over their own decisions.

That mole on Bob's arm was growing larger and darker than the others, and it had been two years since his last appointment with the dermatologist. He kept thinking that he should get to the dermatologist for his semiannual checkup. But when could he find the time? His team at work was short-staffed and he was juggling half a dozen projects. His aging mother across town needed his help keeping up her house. And whatever time he had left he wanted to spend with his wife and kids. Summer turned to fall, then to winter, then to spring. When Bob finally found the time to visit the dermatologist and learned his mole was malignant, his most desperate wish was that he had followed-through and caught it far sooner.

When individuals fail to follow through on well-intentioned plans, there can be large, negative consequences. It may seem that those consequences are theirs and theirs alone, but such failures to follow through can be costly for both individuals and for society. Bob's surgery and chemotherapy, with its repeated hospitalization, will cost his health insurer hundreds of thousands of dollars. High medical costs increase insurance costs for everyone. Bob, of course, will lose income while recovering. Then factor in the emotional toll on Bob and his loved ones.

Previous research suggests a troubling fact: failures to follow through happen more often than not. In other words, people fail to fulfill the majority of their intentions.^{1,2} People often intend to exercise and eat healthfully but then fail, and collectively these failures dramatically raise health-care costs. Many students intend to study regularly to succeed in school but do not make the time, causing them to learn less and fail to achieve their potential. Countless citizens fail to complete tax forms in time to meet government deadlines, forcing them to pay unnecessary tax penalties. Many families of high school seniors neglect to complete college student-aid forms, resulting in students losing out on financial aid and failing to matriculate to college. Some heads of household fail to submit applications for food stamps, leading to

increased food insecurity. New parents intend to formulate wills and purchase life insurance but never get around to either, leading to family battles and financial insecurity when tragedy strikes. Failure to follow through can be costly.

How can policymakers and managers more effectively help people follow through on their intentions to engage in desired behaviors? Today they use a combination of carrots and sticks: bonuses, late fees and other financial incentives, or regulations that require necessary tasks to be completed. But these methods are coercive and clumsy, and often aren't optimal for the situation at hand. Strategically prompting people to form simple plans about how and when they will follow-through on their intentions, however, provides a low-cost, simple and highly effective tool to complement existing strategies.

Evidence is growing that planning prompts that nudge people at key times to think through the how and when of following through on their intentions make people more likely to act on matters of importance to them. These prompts, which leverage insights from behavioral science, increase follow-through on a wide range of beneficial behaviors. They are also inexpensive. And policymakers can deploy them while protecting people's freedom, and minimizing government interference in people's lives.

Planning prompts are not the only type of nudge that research shows can move people towards beneficial behaviors at a low cost while protecting their freedom to behave as they see fit without incurring penalties. Creating a default choice in a menu of options is another (e.g., "your happy meal will come with apple slices unless you tell us you prefer French fries"), since people tend to exhibit inertia and stick with the de facto option. Another type of nudge that's widely used in advertising and energy efficiency communications, among others, is to communicate about the behavior that the majority of other people are engaging in when that

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behavior is desirable (e.g., 90% of your neighbors are consuming less energy than you are per month).³ This sort of message educates people about norms and plays on people's desire to conform.

All nudges, of course, are not useful in every situation. For example, it is unclear how a default choice could help people remember to bring their running shoes to work. Planning prompts could. As such, they're a new entry into behavioral scientists' existing toolbox of nudges: interventions informed by behavioral science insights that facilitate behaviors that improve lives while also preserving individual liberty.⁴ This tool is grounded in one basic insight: Making concrete plans helps people follow through on their intentions.

Why Planning Prompts Work

Plan making has been studied for decades, and there are deep and robust literatures on related concepts like the power of goals, goal-setting, plan making, and mental simulation (for more on these topics see references ⁵⁻⁹). The evidence shows clearly that plan making can increase follow-through. In one early randomized study on tetanus vaccination rates, for example, a team of social psychologists showed that 28% of Yale University seniors got the shot when they were encouraged to do so, prompted to review their weekly schedules and select a feasible time to stop by the health center to receive an inoculation, and received a list of times when shots were available along with a campus map highlighting the health center's location. Only 3% of the seniors got the shot when they were simply encouraged to do so and were informed about how effective the shots were and their availability on campus.⁹

But why would prompting people to make concrete plans about when, where and how they will act to achieve their intentions increase follow-through? Research suggests a number of reasons. Merely asking people if they intend to carry out a beneficial behavior can make it more

likely that they will do it, according to numerous studies.¹⁰⁻¹³ For example, if you ask a person who is not planning to join a gym how likely she is to join a gym, the mere question may prompt her to think more about joining than she otherwise would have, which could then make her more likely to sign up for a gym membership.

Prompting people to make a plan capitalizes on other psychological forces as well. Specifically, guiding people to unpack the when, where, and how of fulfilling their intentions can increase their likelihood of following through.¹⁴ In part that's because making an action plan overcomes people's tendency to procrastinate when they intend to behave in beneficial ways that fail to provide instant gratification,^{15,16} and it overcomes their tendency to be overly optimistic about the time it will take to accomplish a task.¹⁷ It does these things by encouraging people to develop specific strategies to overcome logistical obstacles to following through on their good intentions. Imagine someone who intends to get a flu vaccination that requires an hour of travel to and from his health clinic. Prompting him to make a plan to get vaccinated may lead him to block an hour off on his calendar and enlist colleagues to cover his responsibilities while he is away. Moreover, by unpacking exactly which actions are required to get a flu shot, he will be less likely to underestimate the time needed to accomplish the task—a particularly common problem for complex tasks.¹⁸

Making a concrete action plan also helps people overcome forgetfulness. This is a common obstacle to following through on good intentions.^{19,20} For example, when Orbell and colleagues surveyed women who intended, but failed, to perform a breast self-examination that can detect breast cancer, they found that 70% of them reported that they forgot.²¹ Making a plan counters this tendency by helping people remember their intentions at appropriate times, and activating pre-determined strategies for overcoming the challenges they anticipate facing. It also

helps people remember that to achieve their intentions, they should engage in preprogrammed behaviors at specific moments—for example, a specific time of day, when a certain event occurs, or when a specific feeling or thought arises. In other words, “if situation Y arises, then engage in behavior X.”^{6,22} For example, rather than a person simply saying he will get his flu shot next Tuesday, he instead could make a concrete plan: After he drops his son off at daycare next Tuesday, he will drive to the clinic to receive his shot. Unpacking the logistics in this way will make Bob more likely to spontaneously remember to get his flu shot next Tuesday, as he drives away from daycare.

Finally, forming an action plan makes it uncomfortable to not follow through. Committing to behave in a certain way and then failing to follow through on this explicit commitment causes discomfort.²³ For example, if a person schedules an hour to get a flu shot on his calendar for next Tuesday, then fails to get it, it would mean that he failed to honor an explicit commitment recorded on his calendar. Anticipating such discomfort probably contributes to why planning prompts increase follow-through.

Further, planning prompts become even more effective when they require a person to make a commitment to someone else, such as reporting the plan to a friend. Such prompts add social pressure to follow through on a commitment on top of the other benefits of plan-making.²⁴ Returning to our flu shot example, if this person had told his spouse that he planned to get the shot on Tuesday, in addition to scheduling it on his calendar, a failure to get the shot would induce added discomfort and possible embarrassment.

Although making a plan helps people accomplish their intentions, when left to their own devices, people often fail to generate concrete plans.²⁵ Ironically, people under plan more often when they begin with strong intentions. This is because they mistakenly believe that their strong

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intentions are enough to propel them to perform the desired behaviors, and that belief keeps them from using strategies that could help translate their intentions into actions.²⁶ Thus, paradoxically, people are prone to under plan for the behaviors they would most like to accomplish. These results underscore the need for policy interventions that encourage plan-making, and suggest interventions could improve social welfare.

Evidence for the Effectiveness of Prompting Plan-Making

Prompting people to make plans can increase follow-through on a wide range of beneficial behaviors, many of them relevant to public policy. For example, college students who committed to eating additional fruit each day over a two-week period were more successful when they also received prompts to plan how, when, and where they would eat additional fruit.²⁷ Planning prompts also increase follow-through on other beneficial intentions, including exercise,^{28,29} dieting,³⁰ smoking cessation,³¹ recycling,³² and test preparation^{33,34} (see reference 14 for an extended review of earlier work).

Consider three recent large-scale field experiments described below that demonstrate the power of planning prompts to influence socially important behaviors. Each of these studies illustrates a light-touch approach that policy-makers might use to elicit concrete plan-making. They also highlight conditions that increase the effectiveness of planning prompts.

Getting People to Vote. In the United States, tens of millions of dollars are spent encouraging citizens to vote in each election cycle. When more citizens participate, it can affect who wins a given election contest, as well as which groups of citizens have more influence over legislation (for a review see ³⁵). To find out whether planning prompts can increase the effectiveness of get-out-the-vote communications, one of us (Rogers, in collaboration with David Nickerson) randomly assigned 287,000 people during the 2008 Democratic primary election in

Pennsylvania to one of three groups. One group received a call based on a typical get-out-the-vote phone script: They were called and reminded of the upcoming election, encouraged to vote, and asked if they intended to vote. A second group was run through the same script and also asked three additional plan-making questions: when they would vote, where would they be coming from, and how they would get to their polling place. Those in a third group were not contacted.

By analyzing public voting records, Rogers and his co-author showed that those who received the call based on a typical get-out-the-vote phone script were 2.0 percentage points more likely to vote than those who weren't called at all. However, those who were also asked plan-making questions were 4.1 percentage points more likely to vote than those who weren't called—a statistically significant increase over the 42.9 percent turnout of the control group. In short, adding three simple plan-making questions made get-out-the-vote calls more than twice as effective.³⁶ Further analyses suggested that the plan-making calls worked particularly well on those who likely had not already developed a plan for getting to their polling place: citizens who lived in households with no other eligible voters.

To put this effect size into context, a voting shift of this magnitude in the 2008 presidential general election would have changed the outcomes in Florida, Indiana, North Carolina, and Missouri. Of course, generating so large an effect size in hotly contested battleground states (as opposed to a less intense primary election) is unlikely, as is reaching 100% of eligible voters by phone to administer a plan-making intervention. This illustration simply shows that adding the plan-making prompt to the standard get-out-the-vote calls meaningfully increases the effectiveness of the voter outreach.

Expanding Flu Immunity. Plan-making alters important health behaviors as well. Milkman and colleagues conducted two large-scale field experiments, in collaboration with Evive Health, a company that reminds employees of client corporations by mail when they are due to receive immunizations and medical exams.³⁷ The first experiment involved encouraging employees to receive shots to prevent seasonal influenza, which annually causes more than 30,000 hospitalizations and more than 25,000 deaths in the United States.^{38,39} The frequency of these adverse incidents could be greatly reduced if more people obtained flu shots, which are widely available, inexpensive, and effective. Past research has shown that sending reminder letters increases vaccination rates by an average of 8 percentage points.^{40,41}

To see if planning prompts induced people to get flu shots, more than three thousand employees of a Midwestern company received mailings encouraging them to get free flu shots at a variety of on-site work clinics. Each mailing included the date(s), time(s) and location of the clinic at the employee's work site. Employees were randomly assigned to one of two groups. Those in a *control* group received a mailing with only the personalized clinic information described above. Those in the *plan-making* condition also received a prompt urging them to (privately) write down the date and time when they planned to attend a clinic in a box printed on the mailing. Clinic attendance sheets were used to track the receipt of flu shots. This subtle prompt to make plans cost little but increased flu shot uptake from 33% of targets in the *control* condition to 37% in the *plan-making* condition.³⁷

The prompt was most effective for employees whose on-site flu shot clinics were only open for a single day, as opposed to three or five days. In that case, the opportunity to receive a flu shot was fleeting, making failure to follow through especially costly. A full 38 percent of those employees prompted to form a plan who worked at sites with one-day only clinics obtained

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flu shots—8 percentage points more than those in the control group with access to one-day only flu shot clinics. These results suggest that plan-making interventions may be most potent in scenarios with only a narrow window of opportunity to act. They also indicate that adding a planning prompt to a reminder can boost follow-through by nearly as much as the reminder itself.^{40,41}

Preventing Colon Cancer. In the second experiment conducted by Milkman and the same team of colleagues, Evive Health sent nearly twelve thousand employees who were overdue for a colonoscopy a mailing reminding them to obtain the screening.⁴² The mailings provided personalized details about the cost of a colonoscopy and how to schedule an appointment. They also included a yellow sticky note affixed to the top right-hand corner, which recipients were prompted to use as a reminder to schedule and keep their colonoscopy appointment. Employees were randomly assigned to groups. For one group this yellow note included a plan-making prompt with blank lines for employees to write down the doctor, clinic, and date of their appointment; for another, the note was blank.

Approximately seven months after sending the mailing, insurance claims information for employees in the study were reviewed to confirm who had received colonoscopies. Among those who had received the plan-making mailing, 7.2 percent received a colonoscopy, while only 6.2 percent of those who received a reminder without a planning prompt followed-through. Increasing the rate of obtaining colonoscopies by one percentage point would save 271 years of life for every 100,000 people who national guidelines indicate need the procedure, according to a 2008 study led by researchers at Memorial Sloan-Kettering Cancer Center.⁴³ Further, the plan-making mailer's impact was most potent among subpopulations most at risk of forgetfulness, such as older adults, adults with children, and those who did not obtain colonoscopies after

earlier reminders. This finding is consistent with past psychological studies on the impact planning prompts can have and highlights the value of planning prompts as a potent tool for overcoming forgetfulness.

Making The Best-Laid Plans Better

As evidence of the power of making plans has grown, researchers have probed how to improve their effectiveness. Their efforts have yielded multiple enlightening clues, many of which are summarized in Table 1. (For more comprehensive scholarly reviews, see references 7,14,44). For instance, spelling out the when, where and how of achieving a given outcome will not improve follow-through unless people have (or are persuaded to form) an intention to pursue the goal.⁴⁵ Along the same lines, planning prompts are especially effective if they target intentions rooted in individuals' personal values, rather than in external pressures.⁴⁶ Plan-making is even more effective when people contrast how their lives would be improved if they accomplished their goals with how their lives are currently.⁴⁷

Planning prompts also work better under circumstances that make follow-through difficult. Prompts add the most value when people face obstacles to achieving their intentions.⁶ As previously discussed, these include forgetfulness⁴² and limited windows of opportunity to execute an action.^{37,48} They can also include cognitive busyness, when a person's cognitive bandwidth is occupied with multiple tasks.⁴⁹

Planning prompts are especially potent when they guide people to develop concrete and precise plans with formats such as, "If I encounter situation X, then I will perform behavior Y." In this case, the plan is cognitively linked to situation X, and when the person faces that specific situation, it is automatically activated. For example, if the plan is, "At 6 pm tomorrow, buy a

spinach salad for dinner from the deli next door,” the person making the plan will be likely to remember to go to the deli next store when the clock reads 6pm. Specifying the planned behavior is also critical. At 6 p.m., she will know it is time to specifically buy a spinach salad, rather than needing to decide what food she should pick up.⁷ Further, as discussed previously, prompting people not only to form plans but also to state them publicly can enhance their impact by layering on the added benefits of social pressure and accountability.²³

Prompting people to plan, it should be noted, is not always useful. Planning prompts can be unnecessary, for instance, when fulfilling an intention is straightforward and easily accomplished⁵⁰ or when people have already planned.³⁶ The propensity to plan is a relatively stable individual attribute: some people tend to regularly make plans, while others tend not to.²⁵ Those who tend not to plan stand to gain the most from planning prompts.

In some cases, plan-making can actually be harmful and so plan-making prompts should be avoided. For example, making multiple plans concurrently may interfere with people’s ability to recall and act on their intentions at critical moments.⁵¹ In addition, planning concurrently to fulfill multiple intentions rather than a single intention could underscore the many challenges to accomplishing those intentions. This could be discouraging and undermine people’s commitment to their intentions and, therefore, their success.⁵²

Additionally, recent research suggests that making a plan to accomplish intentions during pre-specified moments may be detrimental to follow through if people encounter unanticipated opportunities to accomplish their intentions before the pre-specified moment. Despite the benefits of plan-making, under some conditions it can prevent people from improvising new strategies to achieve their intentions.^{53,54} These new research findings suggest that policy-makers

should focus on administering planning prompts for single, specific intentions that can only be executed in specific time windows.

Planning prompts are more useful for tasks such as scheduling a doctor's appointment, which requires a single phone call, than for more complex tasks that require multiple discontinuous actions to complete.^{55,56} Writing a will, for example, often requires a person to collect documentation of one's assets and consult repeatedly with a lawyer. Intentions to carry out this sort of complex task are particularly vulnerable to disruption by factors outside of a decision-maker's immediate control, such as a work or family emergency, getting distracted, or not having copies of the appropriate paperwork. To accomplish more complex tasks, it helps to break the job into smaller tasks, each of which can be done in a single session. Doing this would create the conditions for planning prompts to help. As research into this area has grown, so have insights into when planning prompts are more and less effective, which we summarize in Figure 1.

Table 1. When and why plan-making prompts are most effective

When planning prompts are most effective	Why prompts may help
People already have a strong intention to act.	People may be more motivated to make careful plans when they have strong intentions.
Intentions are motivated by personal values as opposed to other pressures.	People may be more motivated to make careful plans when they are intrinsically invested in their intentions.
At least a few obstacles stand in the way.	Without obstacles, achieving goals does not require much effort or attention; therefore, planning is of trivial benefit.
People have not yet made plans.	It is redundant to prompt people who have already made plans to make plans again.
People are at high risk of forgetfulness.	People at risk of forgetfulness are most in need of tools to facilitate follow-through.
There is limited time to perform a task.	Planning prompts reduce forgetting, and forgetting is costlier when the window of opportunity for action is limited.
Planning requires detailed thinking about how to overcome specific obstacles.	Prompts help people develop specific strategies that they will need to succeed at follow-through when faced with challenging obstacles.
It's necessary to act at a precise future moment.	Prompts strengthen the mental link between a specific time and a required action so people are more likely to remember their intentions at critical times.
People are prompted to be very specific about implementation details.	Thinking through specific details about the context in which an intention can be executed makes that context function as a reminder of a person's intentions.
People state their plans publicly.	Sharing plans creates accountability to others, which makes follow through more likely.
People have a single goal as opposed to multiple different goals.	Prompts for multiple intentions discourage people by highlighting the difficulty of successfully accomplishing each intention.
The intention does not require acting opportunistically when unanticipated chances arise.	Making specific plans can make people inflexible to performing intentions in unanticipated moments.

The Promise of Planning Prompts

We envision multiple arenas in which prompting people to make a concrete plan could help individuals and society. For example, the IRS could prompt parents of college kids to form a plan to complete the FAFSA forms required to obtain financial aid when they file their taxes, which would help more students matriculate and finish their degree. Civic groups could prompt people to plan when and how they will get to their polling place, increasing voter participation. Doctors could prompt patients to plan when and where they will receive a flu shot, corralling the disease. Managers could prompt employees to plan time to follow through with clients, ensuring important tasks aren't left undone.

Planning prompts are not panaceas, of course, and important social problems such as low voter turnout, high school dropout and poor health will not be solved with any single intervention. But planning prompts could provide low-cost ways to boost the impact of existing interventions at minimal additional cost. Unfortunately, despite their widely documented efficacy, planning prompts are not yet widely deployed.

The underuse of planning prompts may be tied to inadequate exposure among policymakers to the scholarly research in this area. Or it may be because most plan-making studies published before 2010, while scientifically valid, examined outcomes with little policy relevance (e.g., remembering to mail a researcher an envelope on a specific date), or used samples of participants that were not easily generalized to a broader population (e.g., entirely undergraduate research participants). More recent planning prompt research has overcome these limitations and is more directly applicable to important social problems.

While further research is needed to understand when, and for which behaviors, planning prompts work best, the work to date provides strong evidence that this tool can be used to

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generate scalable, cost-effective interventions that help people and organizations follow through on their good intentions.

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