Impatience results from the belief that waiting is either too hard or not worth it. Distinguishing between these barriers informs which intervention will increase patience. Making waiting easier increases patience when people are unable to wait. Increasing the value of waiting increases patience when they lack the desire to wait.

Good things come to those who wait. People often need to sacrifice buying a new car to secure retirement savings, manage low income while they pursue an academic degree, and skip antibiotics to let ailments heal naturally and promote long-term health. Yet waiting is not easy. In the USA, half of adults struggle to save for retirement, while almost a quarter have no retirement savings at all. Only 46% of enrolled students graduate college. And the CDC estimates at least 30% of antibiotics prescribed are unnecessary.

Solving these societal issues requires improving people’s patience. Patient people opt for larger-later rewards instead of smaller-sooner ones. Thus, interventions that increase patience help people save for retirement, make healthier choices, attain higher education, and more [1,2].

Much of the research on patience assumed (at times, implicitly) that if a person can wait, they will. Those who do not wait are often thought to have poor willpower. In response, researchers proposed interventions to increase patience by improving impulse control. If only people were better able to wait, it was assumed they would wait. It follows that interventions that help children resist a marshmallow (to wait for two marshmallows instead) can also help adults make healthier medical choices.

But there are reasons why people may not desire to wait, even if they are able to. For example, impatience can result from a preference for a certain immediate reward over an uncertain delayed reward [3]. People might prefer ‘the bird in the hand’ over ‘two birds in the bush’.

Patience requires that a person is both able and desires to wait. Understanding the barrier within a specific situation, whether it is lack of ability or desirability, informs interventions to increase patience (Table 1). For example, if a person fails to save because they do not sufficiently value future income, pointing to the value in saving would motivate action. Yet this same intervention would have minimal impact if a person instead does not feel they can save (e.g., because they are too tempted to spend the money now). In this case, making saving easier (e.g., by changing defaults) would be more beneficial.

**Barrier I: The ability to wait**

Anyone who has been tempted to harvest their tomatoes before they are fully ripe or drink their coffee before it is sufficiently cool knows that patience often requires willpower. While technically people can usually wait (if their lives depended on it), they may find the experience of waiting too difficult. Further, for some decisions, merely anticipating that it will be difficult to wait results in impatience. People do not get in the café line unless they anticipate they can stay there until their turn arrives.

The ability to wait depends on the experience (or anticipated experience) of impatience while waiting and the temptation of the smaller-sooner option. The experience of impatience is often negative (Box 1) [4–6]. Therefore, interventions that reduce the emotional toll of waiting increase the decision to wait. For example, amusement parks and cafés provide distractions to increase patrons’ willingness to stand in line.

Another strategy to reduce the emotional toll of waiting is to offload the need to monitor the wait. Incomplete goals linger on people’s minds, causing them to make impatient choices to achieve goal closure sooner. Medical patients might opt for a more painful medical procedure sooner instead of waiting for a painless procedure later (e.g., a shot now versus pill later), even when the benefits are realized at the same time [6]. Using reminders to assure people that they will not forget a task or guaranteeing payment in advance (e.g., an automatic payment that is scheduled in the present while the money will transfer in the future) can therefore increase patience.

Other strategies tackle the temptation to select the smaller-sooner option, for example, by inviting people to decide in advance. Most people would be more tempted to choose $10 now over $15 next month than to choose $10 next year over $15 in 13 months, even though the only difference between these two tradeoffs is a constant delay of 1 year. Due to hyperbolic discounting, the smaller-sooner option is more tempting when it is available immediately. Choosing in advance removes the temptation of the immediate option.

Even pigeons benefit from choosing in advance. In a classic study [7], pigeons chose to peck on a key that produced a small amount of grain immediately over a key that produced more grain after a short delay. But when a constant time delay of 10 seconds was introduced before both options, the pigeons switched...
to the key that produced more grain later. Making decisions in advance allows pigeons and people to pre-commit to patience.

**Barrier II: The desire to wait**

A person’s internal answer to the question, ‘Is waiting worth it?’, captures the desire to wait. People only want to wait if the delayed outcome is both sufficiently certain and sufficiently more valuable than the immediate outcome. For example, people are more patient for more attractive rewards, such as larger magnitudes of money (e.g., a tradeoff between $1000 later versus $800 now instead of between $10 later versus $8 now) [9] or foods that they like more (e.g., large coffee later versus small coffee now when the tradeoff is between a favorite instead of non-favorite coffee brand) [9].

Notably, while desirability increases patience, it can also make it harder to wait. Given a choice between a small mug sooner or a standard-size mug later, participants were more patient if they were waiting for their favorite (versus non-favorite) mug design. But they also reported that it would be harder to wait for their favorite (versus non-favorite) design [3]. In this case, participants made more patient decisions when they felt more impatient. Thus, while the experience of impatience predicts the ability to wait (barrier I), it is less likely to influence the desire to wait (barrier II).

To increase the value of the reward, consider the wait-to-choose technique. When people wait before they make an intertemporal choice, they grow to appreciate the options they are waiting to choose from, which in turn increases patience [10]. For example, in 2008, stimulus payments were distributed to low- and middle-income households over a 3-month period based on the last two digits of their social security number (effectively random assignment). People who waited longer to receive their stimulus payment made more patient decisions with the money, saving a greater portion instead of spending it immediately [11].

Unlike the advanced decision technique, the wait-to-choose technique introduces additional time before the choice rather than after choosing but before the rewards. Notably, waiting to choose makes it harder to wait. The person has already waited by the time they consider whether to make a choice that requires even more waiting. Yet, waiting to choose increases the value of the rewards [10], which leads people to be more likely to wait even though waiting is more difficult.

Another strategy involves increasing the sense of personal connection to one’s future self. People are more likely to wait for a reward if they believe their future self, the person who will benefit from waiting, is psychologically connected to them. Thus, using virtual reality to simulate people’s images at retirement age increased motivation to save by making people feel personally connected to their future selves [12].

Further, the desire to wait depends on the framing of the choice options. For example, participants were more patient when choosing between ‘a small amount now and zero later or zero now and a large amount later’ than when choosing between ‘a small amount now or a large amount later’ [13]. When the zeros were mentioned, waiting for the larger-later reward seemed worth it [14]. Simple changes to the presentation of the choice options can alter one’s desire to wait.

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**Table 1. How each barrier informs interventions to increase patience**

<table>
<thead>
<tr>
<th>Barrier addressed</th>
<th>Intervention target</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Lack of ability to wait</td>
<td>Reduce the emotional toll of waiting</td>
<td>When the wait is long, add distractions</td>
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<tr>
<td></td>
<td></td>
<td>When seeking closure, offload monitoring the wait (e.g., automatic future payment)</td>
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<tr>
<td></td>
<td>Reduce the temptation of the smaller-sooner option</td>
<td>Choose in advance to take advantage of hyperbolic discounting</td>
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<td></td>
<td></td>
<td>When in a strong need state, postpone making a choice</td>
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<tr>
<td></td>
<td></td>
<td>When the immediate reward is tempting, adopt a cool or abstract construal</td>
</tr>
<tr>
<td>Lack of desire to wait</td>
<td>Increase the value of the delayed reward</td>
<td>Wait before making the choice to increase the subjective value of the rewards</td>
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<tr>
<td></td>
<td></td>
<td>Increase connection to the future self</td>
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<td></td>
<td></td>
<td>Frame the delayed reward as more valuable (e.g., add hidden zeros)</td>
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<tr>
<td></td>
<td>Increase the certainty of the delayed reward</td>
<td>Increase trust that the delayed reward will materialize</td>
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**Box 1. The experience of impatience**

Researchers often study patience as a decision. In an intertemporal choice, the patient decision-maker prefers the larger-later outcome over the smaller-sooner outcome. Yet, patience is also an experience; it involves regulating feelings, thoughts, and behaviors while waiting. For example, when waiting for test results, a routine medical appointment, or to get a table at a restaurant, people do not have a choice between immediate and delayed options. People dislike the feeling of waiting, even for positive events [9]. They are considered patient if they can tolerate the wait without suffering [4,2].

Notably, the experience of patience facilitates patient decision-making only when the barrier is a lack of ability. But patience as an experience is also consequential on its own. Understanding it can inform interventions to improve wellbeing.

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2 Trends in Cognitive Sciences, Month 2022, Vol. xx, No. xx
Other strategies increase the confidence that the larger-later outcome will materialize. Waiting can be risky. Some people do not trust that larger-later rewards will be delivered and the longer a person has been waiting, the more uncertain they are that the larger option will materialize [3]. Thus, increasing trust that the larger-later reward will materialize increases patience. For example, an intervention that increased community trust in Bangladesh by increasing involvement in the government led people to make more patient monetary choices [15].

Concluding remarks

Patient decisions require the ability and desire to wait. When people contemplate whether they want to wait, they need to assume that they can. And when people contemplate whether they can wait, they need to assume that the outcome of waiting is desirable.

When the barrier to patient decisions is a lack of ability, making waiting easier increases the likelihood that people will wait. But when the barrier is low desirability, making waiting easier may not have such an impact. Instead, increasing the sense that waiting is worthwhile will increase patience (something that will be less beneficial if the barrier is lack of ability). Ultimately, distinguishing between the barriers to patience informs interventions for increasing patience in finance, health, education, and more [2]. These interventions must match the barrier.

Declaration of interests

No interests are declared.

References