

The Scientific Reasons You Should Break Up With Your Standard Scale

What happens
when you let a
social scientist
design for better
weight management

So many of us are struggle with our weight. And we are trying to fight our increasing weight for a very good reason-- obesity is one of the main factors causing early preventable illness and death.¹ The information about what we should and shouldn't be eating, and how much of it we should be eating, is not a mystery. When we eat poorly and/or too much, we are well aware that what we just did is not good for our long-term health. We've all heard how many teaspoons of sugar there are in a can of soda, yet we

drink them anyway. We are basically all amateur nutritional experts, but then we go out for an unhealthy launch and have the large order of French fries with that.

Sure, we are worried a bit (from time to time) about avoiding heart attacks or diabetes – but these are long-term worries. The temptation of unhealthy food is constantly eyeing us from supermarket shelves, from the menus at restaurants, and even from our pantry at home.



¹ <https://www.cdc.gov/obesity/data/adult.html>

What explains the gap between what we know about nutrition and what we do day in and day out? This gap exists because information is not enough. Especially when our own long-term health interests are not consistent with the short-term temptation of unhealthy food (not to mention the interests of the food manufacturers). What can we do to help people with good intentions to engage in healthier behaviors?

This is where Shapa comes into the picture. Shapa is an innovative product that builds on a few important principles from social science to create a motivational program that sets us up for success.

Here are the basic principles we should consider when it comes to weight loss and maintenance:

Principle #1 – Standing on the scale

We should stand on the scale every day, and it is better to stand on it in the morning.² Standing on a scale is not just a measurement. It's also a reminder and a commitment to better health that stays with us and impacts our choices during the day.

Principle #2 – Feedback

In theory, getting feedback is a good thing. However, in practice we should ask whether a feedback from a scale, especially a digital scale with decimals (i.e 164.2 lbs) , is the right granularity of data to report. It turns out it is not. Let's see why...



² Levitsky, D. A., & Pacanowski, C. R. (2015). Frequent self-weighing and visual feedback for weight loss in overweight adults. *Journal of Obesity*, 2015, 1-9. doi:10.1155/2015/763680



HEARTBREAKING WEIGHT GAIN

The feedback we get when we get on the scale is very volatile. It fluctuates a lot over time for all kinds of reasons (salt intake, time of the month, going to the bathroom etc). Every morning, when getting on the scale, we will find out that we lost a little weight or gained some weight. These are small changes, with almost no statistical significant when looked at over time.

But we really don't like finding out we gained weight. Moreover, the bad feeling that accompanies the notion we gained some weight has more emotional power over us than the good feeling that we get when we find out we lost some weight. In behavioral economics this phenomenon is called "loss aversion" or in this case "gain aversion."

Imagine a situation in which you stay at the same weight over a month. On half of the days you gain some weight and on the other half you lose some weight. On the days you gain weight, you'll be very miserable. On the days you lose weight you'll be a little bit happier. All in all, it will be a negative experience. And this is exactly the reason people stop weighing themselves, thereby losing the advantages of monitoring.

CONFUSION

In an environment that has a lot of noise and randomization, it is hard to make the connection between cause and effect. You may have a great day during which you exercise and eat a salad, and gain weight. You can have a horrible day during which you eat a huge piece of cheesecake, and lose weight.

It is hard for people to see a direct, clear and immediate connection between their behavior and their weight, and quite frequently good behavior is not accompanied by a reward.



There is a broad array of scientific evidence on the difficulty people have learning when there is noise in the system.

By now you already know that although getting on the scale every single day sounds like a good idea, in real life it's more complicated. The advantage of reminding and committing yourself to healthier habits has the downside of heartbreaking weight gain and confusion.



THE SOLUTION

A scale with no display.

With this kind of scale, you'll be able to get a daily reminder of your goals without additional noise.

Our scale helps you avoid the confusing love-hate feeling most of us associate with scales by replacing the weight display with a simpler, 5-level feedback mechanism. If you're essentially staying the same weight (within 1 standard deviation of your norm), that is already reason to celebrate.

If you go beyond your normal weight range (beyond 1 standard deviation), we'll tell you that as well, whether you've gained or lost. We use the average weight of the last three weeks to make the calculation. This enables an experience that involves less gain aversion and less confusion.

This method helps us avoid unwanted noise. Imagine you are a woman during your menstruation period and you have gained 2 pounds. Should you really be thinking that you've gained weight? No. When you use a scale based on pounds, there is no way to avoid reporting the weight gain. In our scale we take this into consideration and don't report any change.

Because we use average weight over time, we can provide a better feeling of progress as part of a process, instead of daily frustrating volatility. And the feedback mechanism is clearer. Eating salad or cheesecake does matter, but with a traditional scale the timing of the impact isn't correct, whereas Shapa makes the connection between cause and effect much clearer.



CHANGING THE ENVIRONMENT

In driving behavior change, another important component of our approach is to provide advice to users. In the same app that reports the weight outcomes, we ask you to give us information about your personal environment: the way your kitchen is set up, how far the nearest grocery store is, how you get to work. Then, based on your specific environment, we send you daily missions that help make small changes that are specifically personalized to your situation.

Our system will provide you suggestions for improvement- a different grocery list (we tend to eat what we have at home), a different breakfast (once we get used to something it becomes our default and we stick to it), rearranging the pantry (so that unhealthy food will be kept in hidden shelves), etc.

When people rearrange their environment, they behave better without noticing.

And this is exactly what we aim for: changing habits for good.

