

האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

**BAFFLING BATHROOMS: ON
NAVIGABILITY AND CHOICE
ARCHITECTURE**

By

MAYA BAR-HILLEL AND CASS R. SUNSTEIN

Discussion Paper # 726 (June 2019)

מרכז פדרמן לחקר הרציונליות

**THE FEDERMANN CENTER FOR
THE STUDY OF RATIONALITY**

**Feldman Building, Edmond J. Safra Campus,
Jerusalem 91904, Israel**
PHONE: [972]-2-6584135 FAX: [972]-2-6513681
E-MAIL: ratio@math.huji.ac.il
URL: <http://www.ratio.huji.ac.il/>

Behavioural Public Policy Blog

A companion to the journal Behavioural Public Policy

Baffling bathrooms: On navigability and choice architecture

Posted on December 20, 2017 March 27, 2018 by Tony Hockley (LSE)

By **Maya Bar-Hillel**, Center for the Study of Rationality, The Hebrew University of Jerusalem, and **Cass R. Sunstein**, Harvard Law School, Harvard University

First appeared at: <https://bppblog.com/2017/12/20/ablutions-at-the-grand-hotel-on-navigability-and-choice-architecture/>



The Nobel Award ceremonies in Stockholm in December are a grand affair. Lodging at the Grand Hotel is part and parcel of the grandeur. We enjoyed this privilege in December of 2017, when Richard H. Thaler won the Nobel Prize for his “[Contributions to Behavioral Economics](#)”. But this was not an unqualifiedly happy hotel experience. Through a critique

of the hotel's bathroom design, we address a pervasive and even fundamental challenge in everyday life: navigability.

One of Thaler's best-known and most influential contributions was developed with one of the current authors, and presented in their book *Nudge* (2008). That book elaborates two central ideas. The first involves *nudges*: small interventions that gently steer choosers towards, or away from, this option or that without imposing mandates or economic incentives, and without limiting the choice set. The second involves *choice architecture*, understood as the particulars of the setting within which choices are made, or the framing of the choices themselves. Consider the arrangement of food options in a cafeteria or the listing of items on a menu. Nudges often operate via changes in choice architecture. Automatic (but not binding) enrollment in a pension plan, and automatic payment of credit card bills and mortgages, are nudges. So is a text message reminding people that a bill is due or that a doctor's appointment is nigh; so are the default settings on computers and cell phones.

Many nudges are concerned with navigability. Signs are a kind of nudge. Good ones make it easier for people to get where they want to go, and small design details can make a big difference. For example, whether a sign informs drivers that the airport is on the right verbally or instead by icons might have a large effect on the ease with which drivers (especially foreigners!) heading toward the airport realize that they should take the next exit (Fig 1).



Fig 1 – Verbal v icon signs

That object design often is a kind of nudge follows from Don Norman's famous best-seller *The Design of Everyday Objects* (revised, 2013). There is a good reason why coffee-pot spouts are directly opposite arc-like handles but at a right angle to stick-like handles, and not vice versa (Fig 2). This is good ergonomic design (if only for right-handed people).



Fig 2 – Two old copper Oriental coffee pots (finjans)

The following photos were recently taken in a bathroom at the extraordinary and gracious Grand Hotel. The bathroom was spacious and sparkling, well-endowed with more than the usual luxurious amenities. Three touches went beyond the commonplace. First, the towels were on a heatable rack – excellent for the chilly Stockholm climate. Second, audio from the bedroom was piped into the bathroom. The best, and rarest, feature was the text written next to the electrical light switches, both in the bathroom and outside it, which informed visitors what that switch controlled (Bottom of Fig 3). Good choice architecture! In contrast, two other switches, with arrows on them, were not verbally labeled (Top of Fig 3). What they controlled therefore remained a mystery that did not yield to fiddling attempts (upon inquiry at the desk, it turns out that they control the volume of the audio being piped in).



Fig 3 – Wall mounted switches in a Grand Hotel bathroom

This and other deficiencies of design and of choice architecture provide, we believe, some enduring lessons extending well beyond hotel bathrooms. The first is: as far as possible, spare users the need to guess.

Consider next the unusually deep bathtub. Climbing into it presented a challenge, possibly even a risk, for a petite woman like the first author (under 160 cm). There was a hand rail to hold onto, but it was on the opposite side, too far away to assist in the climbing endeavor (Fig 4). On the side from which one climbs in, there was nothing to hold onto, except a glass partition. Since it swung on its hinges, it could not offer stable support. To enter the bathtub safely, the first author ended up sitting, ready for a bath, on the cold marble rim (not fun), and swinging her legs from outside in. (The second author, a tall man who did not have such trouble, nonetheless did not fail to notice the unusual depth of the bathtub.)



Fig 4 – Bathtub, showing the hand rail and the glass partition.

Hotel bathtubs necessarily come in a fixed size, yet serve people of varying sizes and tastes. Heterogeneity makes it hard to please them all. But acknowledging the heterogeneity problem could yield feasible solutions (e.g., suitable placement of a hand rail or a step). Lesson: In a one-size for-all situation, where intrinsic adjustment is not possible, consider tacking on extrinsic adjustments.

A most elaborate shower set adorned the wall above the bathtub (Fig 5). It consisted of four (!!) different outlets from which water could emerge: the spigot that fills up the tub; a small portable showerhead, of the sort standardly found in European hotels; another higher up portable showerhead, essentially the same as the previous one; and finally, a wide-area showerhead, in a fixed position just under the ceiling, which is the standard nowadays in better American hotels. The last one is the favorite of many hotel visitors, ourselves included.



Fig 5 – The complete shower set, with 4 outlets, and about half a dozen knobs and levers, some independent some not (Photo courtesy of Stina Axelsson of the Grand Hotel)

This preference spelled trouble.

It is not news that water already in the pipes when one first turns water on is at room temperature at best. In December in Stockholm that means: cold. The water has to run a bit before the hot water arrives. As our bathrooms were designed, someone wishing to shower under the ceiling showerhead could not avoid a startlingly cold dousing. Alas, even

after figuring out what knobs and levers to manipulate, there was no alternative to standing directly underneath that showerhead when turning it on! The knobs were simply too far away to be reached with an outstretched arm from a suitable distance. Each shower from that source thus inevitably began with a gulp, a yelp, and a backwards hop, landing one directly on the tub's drainage hole – placed unusually in the middle of the bathtub.

The design solution is easy enough, since plumbing does not constrain the obvious: the tinkering area – the knobs and levers – should not be beneath a fixed showerhead. This would benefit not only hotel guests, but also maintenance personnel. This is best done at the plumbing installment stage, but can be fixed even at this late stage by extending, even by only a foot, the arm of the water pipe that runs parallel to the ceiling (of course, the protective glass partition would also have to be extended). Lessons: don't make your design more complex than necessary, and try out your design before adopting it widely.

The towels and bathrobe hung, respectively, on a fixed rack and hook that were, sensibly, separated from the showers by the glass partition. But this made them unreachable from within the bathtub (Fig 6).



Fig 6 –

Bathrobe and towels hanging on the outside of the tub's glass partition

To enable donning the robe while still standing within the bathtub, the only available solution was to lay it on the floor outside the bathtub. A better solution would have been to

have an extra hook on the opposite wall, where the robe could be placed before taking a shower, without the half-size glass partition preventing reaching out for it. Lesson: keep the user's perspective in mind.

The bathrobe and slippers apparently come in one size only – the single room for the clearly non-Scandinavian female occupant was supplied with a robe for a very tall person with very large feet. Thus, donning the robe inside the bathtub resulted in a wet hem. Unlike the immutable size of the bathtub, these accessories could be better fitted to the guests' needs.

In Neoclassical Economics (and in some hotels), it is axiomatic that “the more options, the better”. This is not necessarily so in Behavioral Economics (or in hotels), the field from which Thaler hails. One reason is that more options are harder to navigate. Eliminating superfluous or dominated options is thus a blessing. Good (choice) architecture requires that wherever the hotel guests might hail from, and whoever they are, they can easily choose the water source that they prefer.

Alas, the luxurious and no doubt expensive bathing system offered in our bathrooms (not all Grand Hotel bathrooms are identically designed) is insufficiently navigable. It offers too much of a good thing. A variety of control devices and options is lovely – but not when you have to guess how to operate them. Deep tubs and long robes are lovely – but not for the short of legs. And unavoidable dousing of cold water on one's head in December in Stockholm is just not lovely at all.

With appropriate variations, the lessons from our bathroom experiences can be applied to many other exercises in choice architecture, including application forms, websites, permit requirements, and airports. Navigability is good – nay, it is essential. Simplicity serves it. Ergo, simplicity is good.

We conclude with a word of thanks and a round of applause: a stay at Stockholm's justly named Grand Hotel during Nobel Week is a magnificent experience, and one to remember!

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