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NUDGING **DEMOCRATIZED**

*A GUIDE
TO APPLYING
BEHAVIORAL
SCIENCE*



PUBLISHED BY
THE DECISION LAB

INCLUDES «INSIDE NUDGING»

Nudging Democratized

A Guide to Applying
Behavioral Science – Chapter 2
Excerpt
(For Educational Uses Only at
Cornell Tech)

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2

ORGANIZATIONS CAN PACKAGE BEHAVIORAL SCIENCE FOR GOOD

In the fall of 2010, I was driving to the Luxe Sunset Boulevard Hotel in Los Angeles for a meeting over drinks. Honestly, I can't remember exactly how this meeting got set up. I do know my wife deserves tremendous credit for more reasons that I can mention. At the Chicago business school where she got her PhD⁷, she got involved with behavioral economics circa-1997 before it got really hot circa-2008 in the public sector with the book *Nudge* (Thaler and Sunstein 2008). Given *Nudge*'s success in 2008-09, the stars were starting to align by 2010 with a limited number of private sector companies looking to do something very unique. Although I didn't know it yet, my wife was introducing me to one of those special companies, Allianz Global Investors. My wife probably mentioned my background in helping companies with start-up initiatives within larger companies. So my meeting was going to be with two people, Shlomo Benartzi and Cathy Smith, to discuss possibilities of me

⁷ My wife is now a marketing professor at the UCLA Anderson School of Management. She was trained in behavioral economics at Chicago Booth, and her PhD advisors were Richard Thaler, France LeClerc, Yuval Rottenstreich, and George Wu.

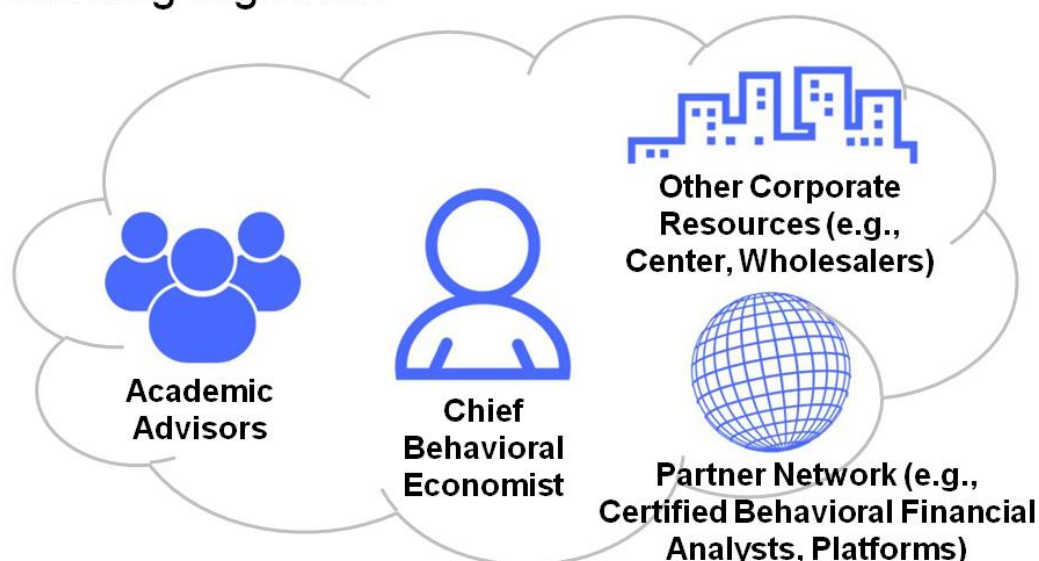
helping out with an initiative they had just started with support from top management at Allianz Global Investors. Little did I know this meeting would mark the beginning of an experience that would turn out to be one of the most fulfilling professional experiences of my career.

The Allianz Global Investors Center for Behavioral Finance (the Center) was founded in 2010 with the goal to turn academic insights into actionable ideas and practical tools (Allianz Global Investors n.d.). Shlomo Benartzi, a prominent academic at the UCLA Anderson School of Management in behavioral finance, was serving as Chief Behavioral Economist and provided the scientific vision and guidance for the Center. Cathy Smith, a Director at Allianz Global Investors, served as Co-Director for the Center and provided business leadership for the Center at both strategy and operational levels. The role I played at the Center would evolve over the years, given my *modus operandi* as a long-time management consultant. That said, a key role for me involved bridging academic insights into implementation, such as facilitating innovation, tools, content, and initiative development.

The first program the Center rolled out was called PlanSuccessTM⁸, and it fell into the general category of efforts to help people save enough money so that they could eventually retire with dignity. Although I am biased, the program blossomed to become an extremely fine example of combining thought leadership, science, and practical application through a diverse ecosystem of academics, employees, and partners (see Figure 2.1). According to an article by Fred Barstein published around the Center's fifth birthday, the Center had "rocked the [defined contribution] world" and was one of only two investment-only firms to receive special recognition for its value-add program (Barstein 2015).

⁸ PlanSuccess is a registered US trademark of Allianz Global Investors Capital LLC as of October 6, 2015.

The initiative involves diverse people working together.



References: Allianz Global Investor Center for Behavioral Finance website and Experts page at <http://befi.allianzgi.com/en/Experts/Pages/default.aspx> retrieved on June 16, 2015; NAPA Net the Magazine (Spring 2015)
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Figure 2.1: The PlanSuccess Ecosystem

An Executive-Level Look at the PlanSuccess Case Study

First, let's take a look at one of the core problems within the retirement space in the United States, which is also happening to differing degrees in the other areas of the world. In the United States on an aggregate level, employers have moved from a defined benefit (DB) world to a defined contribution (DC) world. This shift has generally been initiated by employers over the years to reduce their costs and their liabilities from increasing life expectancies. In the DB world, employees essentially accumulate future retirement income by simply going to work. In a DC world, employees must decide to participate in the retirement plan (often a 401k plan), decide how much to save, and decide what investments to put their money into. Suffice it to say, the shift in the tide from DB to DC has created both opportunities and challenges. Out of every ten people in the United States, five can save through a 401k plan, three actually save, and one saves enough (though one can debate how wisely) (Benartzi and Lewin 2012). See Figure 2.2 for a summary of the retirement crisis.

Let's look at a key problem statement in the DC space.



Source: Adapted from Benartzi and Lewin, *Save More Tomorrow: Practical Behavioral Finance Solutions to Improve 401k Plans* (2012)
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Figure 2.2: A Perspective on the Retirement Crisis

For the PlanSuccess program, the focus of the effort was on a subset of the larger problem of retirement savings. Namely, how can individuals that have access to a 401k plan be helped? A first step was to articulate where individuals run into issues (e.g., as evidenced by poor outcomes or behaviorally unhealthy plan designs) and then offering design solutions. A key strength of the PlanSuccess approach was the creation of a framework that connected behavioral science with the business problem and desired outcomes. See Figure 2.3, which comes from the Center's website (Allianz Global Investors Center for Behavioral Finance n.d.). The columns reflect the behavioral science challenges (e.g., Inertia, Loss Aversion, Myopia) that people face, the rows reflect the business problem of getting people to Save, Save More, and Save Smarter⁹, and the cells

⁹ The notion of 90-10-90 outcomes was a key point of view put forth in the book, *Save More Tomorrow*, and represents a rule-of-thumb notion that a good goal is to get at least 90 percent of people participating in a defined contribution plan (i.e., SAVE), have participants saving at least 10 percent of salary presuming a generous employer match (i.e., SAVE MORE), and have at least 90 percent investing wisely (i.e., SAVE SMARTER)

within the matrix represent the proposed behavioral finance solutions (e.g., Match Optimizer, Save More Tomorrow 1.0) to help employers design behaviorally-healthy retirements plans for their employees.

The Center facilitated and created a number of actionable ideas and tools to support the PlanSuccess program, including the *Save More Tomorrow* book (Benartzi and Lewin 2012), an online PlanSuccess Behavioral Audit tool (Allianz Global Investors n.d.), a Certified Behavioral Finance Analyst program, and other content (Allianz Global Investors n.d.).

The PlanSuccess method is notable as it provides a product-agnostic approach to improving DC plans and outcomes for future retirees. Allianz Global Investors developed the PlanSuccess Behavioral Audit tool for use by network partners (e.g., Certified Behavioral Finance Analysts). Network partners use the tool to perform behavioral audits of employer DC plans and make recommendations to the employer based on behavioral science. To give a flavor of PlanSuccess behavioral audit questions, here are a few (Benartzi and Lewin 2012):

- Does your plan use auto-enrollment for new employees? (This question examines inertia.)
- What is the maximum percentage of pay that the employer will match? (This question addresses loss aversion for the employer and examines anchoring for the participant.)
- Do account statements show participants their projected income at retirement given their current savings trajectory? (This question examines myopia.)

(Benartzi and Lewin 2012).

3x3 framework connects behavioral science with the business problem.

	EASY CHOICES (Inertia)	MANAGED LOSSES (Loss Aversion)	BEHAVIORAL TIME MACHINES (Myopia)
SAVE	Auto-Takeoff	Match Optimizer	The Face Tool
SAVE MORE	Save More Tomorrow 1.0	Save More Tomorrow 2.0	Imagine Exercise
SAVE SMARTER	Investment Solutions Pyramid	Lifetime Statement	Tangible Account Statement

Reference: Allianz Global Investors Center for Behavioral Finance website, <http://befi.allianzgi.com/en/save-more-tomorrow/Pages/key-themes-of-the-book.aspx> retrieved June 15, 2015
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Figure 2.3: Cornerstone Framework to PlanSuccess (“The 3x3 Matrix”)

Looking a bit deeper at the behavioral audit, a premise of behavioral science is that the details matter. So if one zooms in on the intersection of the SAVE row and Inertia column relative to 401k plan design, there are specific behavioral audit checkpoints with respect to the choice architecture being implemented by the employer. Behavioral audit checkpoints include:

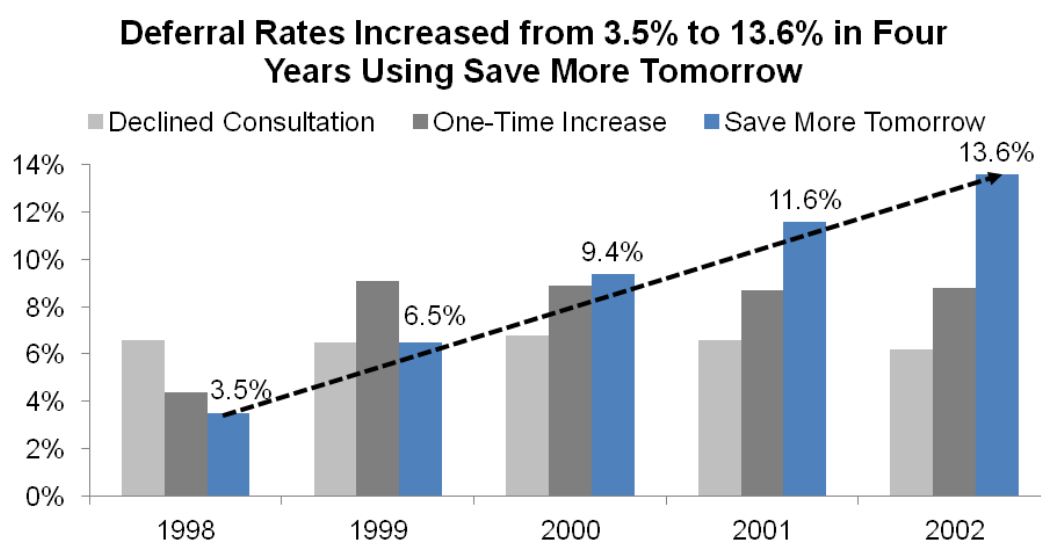
- Use of auto-enrollment (opt-out defaults) for new employees
- Use of auto-enrollment (opt-out defaults) for existing employees
- Initial default saving rate
- Use of active (prompted) choice
- Use of easy choice
- Use of future (pre-commitment) enrollment

Now if you recall the Behavioral GRIT™ framework I mentioned in Chapter 1, I made not only a distinction between choice, information, and process architecture, but also a distinction between the use of mass and personalized approaches. In theory, one could imagine taking the PlanSuccess

framework further by going deeper into any of these dimensions. For example, the existing 401k plan design world largely involves mass architecture approaches. One could imagine a new 401k world with more personalization (e.g., tailored nudges for individuals) given advances in technology. A digital world enables new possibilities.

Yet while there are new possibilities, it is worthwhile to note that the PlanSuccess 3x3 framework leverages significant, specialized research. It is neither always possible nor desirable to try to bypass this part of the process (I'll address the topic of research and nuances of applying research in business settings in Chapter 6). For example, the Save More Tomorrow research (Thaler and Benartzi 2004) involved significant innovation and controlled testing that began back in 1998. See Figure 2.4 (Allianz n.d.) for an illustration related to the Save More Tomorrow research and how results were measured over time for three distinct groups of people (i.e., those that declined consultation, those that made a one-off savings increase, and those that elected Save More Tomorrow for regular, automatic savings increases).

3x3 framework uses significant, specialized research...here's an example.



Reference: Thaler and Benartzi (2004) with graphic retrieved from http://knowledge.allianz.com/finance/behavioral_finance/?1818/save-more-tomorrow-pension-savings-rates#popup-information-1994 on July 8, 2015
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Figure 2.4: An Example of Specialized Research – Save More Tomorrow

Let's recap. Allianz Global Investors created a Center for

Behavioral Finance, which provided thought leadership and was essentially an innovation center¹⁰. The Center was dedicated to creating tools and content and reinvented the notion of services that could be provided by the industry and its ecosystem partners. The 3x3 framework was published as part of the book, *Save More Tomorrow*, and any advisor or plan sponsor could start to use the behavioral finance principals contained within that book to help design behaviorally-healthy DC plans. Allianz went further by creating the PlanSuccess Behavioral Audit tool and a support network for an elite set of financial advisors that earned the Certified Behavioral Financial Analyst designation through a specialized training program.

What kind of impact could PlanSuccess have on a company and its employees? FiduciaryFirst was one of the early retirement advisory firms that provided significant input during the creation of PlanSuccess. Figure 2.5 provides a nice summary of the amazing results that FiduciaryFirst and a client company achieved by using PlanSuccess (FiduciaryFirst n.d.). Participation in the DC plan offered by the company increased from 45% to 87% of employees actively saving in the retirement plan as a percentage of total eligible employees. Deferral rates (i.e., average percent of income saved by each employee) increased from 2.9% to 7.2%. And the percentage of participants saving smarter (defined as investing in a diversified, one-stop solution) increased from 24% to 79%. Those results indicate that significantly more people should have significantly more money at retirement than they would have otherwise. Jamie Hayes, Partner at FiduciaryFirst, said¹¹, “It has been great to work with the Allianz Global Investors Center for Behavioral Finance, employers, record keepers, and other advisors over the years. I worked with Shlomo Benartzi, Cathy Smith, and Steve Shu on the *Save More Tomorrow* book, PlanSuccess tool, and Certified Behavioral Financial Analyst training program from the very beginning when they were just ideas and pencil and

¹⁰ In Appendix A, I discuss the notion of innovation centers as well as other predominant organizational models and implementation elements for implementing behavioral science initiatives.

¹¹ Personal correspondence with Jamie Hayes (October 2015)

paper tools. Now we've developed a sense of scale and impact. And we've done a large part in changing the industry. We've helped employers remove behavioral obstacles in their DC plans, and those efforts directly translate into improving the lives of future retirees. I'm extremely proud of that legacy."

Advisors can implement behavioral finance to help their clients' employees retire with dignity.



Source: <http://fiduciaryfirst.com/participant-effect> retrieved July 20, 2015 and updated based on correspondence with Jamie Hayes on October 20, 2015. Copyright © 2019 by Steve Shu Consulting

Figure 2.5: An Example of Successfully Applying Behavioral Finance

Why PlanSuccess Succeeded

In Chapter 1, I introduced the notion of the Behavioral GRIT™ framework, where GRIT stands for the business functions related Goals, Research, Innovation, and Testing. Let's use Behavioral GRIT™ to examine PlanSuccess:

1. **Goals** – The Center found a sweet spot in terms of both aligning goals between various constituents and elevating the whole industry perspective on how to design behaviorally-healthy DC plans.
 - **Company Goals** - The Center was established with the goal of turning academic insights into actionable ideas and practical tools.
 - **Individual and Plan Sponsor Goals** - With the backdrop of the US retirement crisis, goals included helping people to save enough money so that they could eventually retire with dignity.

Helping people make proper decisions would involve helping employers (i.e., plan sponsors) develop behaviorally-healthy DC plans.

- **Industry Goals** – Sometimes thought leadership requires building primary demand (e.g., demand for behaviorally-friendly DC plans across all companies) over selective demand (e.g., demand for specific Allianz Global Investors products and services). The Center focused on primary demand building, making ideas available to all, and being product-agnostic in terms of approach (e.g., there are no mentions of specific products in the book *Save More Tomorrow*).
 - **Specific Company Positioning and Network Ecosystem Goals** - Goals included maintaining an elite position in the market and fostering a high-touch partner experience. As a consequence, a premium network and program for Certified Behavioral Financial Analysts was created. An online version of the PlanSuccess tool could be used by certified professionals, who essentially distribute the knowledge of behavioral finance by applying the concepts to employer DC plans.
2. **Research** – The Center created a scientific leadership position along with an advisory board to harness scientific knowledge that was mostly developed outside of Allianz Global Investors and within the academic community.
- **Behavioral Science Officer** – To spearhead scientific vision, the Center created a Chief Behavioral Economist position.
 - **Advisory Board** - Specialized experts outside of Allianz Global Investors and from broader areas like psychology, behavioral economics, finance, and marketing were appointed to an academic advisory board. These experts provided a combination of input on the broad direction of programs and specific, detailed

consultation on design of program elements (e.g., tool development).

- **Specialists and Research Consultants** – In order to support tool creation, data analysis, content development (e.g., whitepapers, presentations), talks, and some field research, the Center utilized a small set of scientifically-skilled resources to execute its programs.
 - **Specialized Research** – If one looks at the research called out in the book *Save More Tomorrow*, the 3x3 framework leveraged decades of pre-existing, industry- and sub-industry-specific literature. This minimized the need for new research and benefited the PlanSuccess efforts in terms of time-to-market.
3. **Innovation** – Arguably, innovation is one of the trickiest areas to get right. Volumes of books could be written on the subject. In Chapter 4, I will address a few key angles I see as especially important for behavioral science applications. For the case of PlanSuccess, the Center basically put together the right team and had a maniacal focus on design.
- **Diverse Team** – I mentioned the advisory board previously, and the Center went further to collaborate with partners and clients to make sure that designs went beyond the lab and could be used in the real world.
 - **Unique Resources** – There are some aspects of the innovation process that are quite difficult to scale. A trick is synthesizing deep academic insights, deep industry knowledge, design, and development capabilities. It is rare to find individual people that have two of these four capabilities, yet the Center tapped into a very limited number of individuals who each probably have three or four of these capabilities.
 - **Design Focus** – As emphasized in Chapter 1, design is key. There are a couple of mantras in behavioral economics that “small changes can make a big difference” and that “details matter.”

But there is another aspect to what the Center did with PlanSuccess from a design-level in terms of changing the meaning and relationship between Certified Behavioral Financial Analysts and plan sponsors. No longer did discussions need to be constrained to the typical story of the 3Fs (i.e., funds, fees, and fiduciary responsibilities). Now the context of the discussion could be changed and extended to the design of behaviorally-healthy DC plans that would help real people.

4. **Testing** – Of the Behavioral GRIT™ areas, testing might be the most straightforward area from a conceptual perspective. Although there are many flavors of testing, two keys for the Center were finding the right partners and testing the tools in the field.
 - **Network Collaborators** – As I mentioned earlier, during the creation of PlanSuccess, the Center got input from financial advisory firms, like FiduciaryFirst. The Center also got input from other parties in the DC ecosystem, like recordkeeping firms, consultants, and policy advisors.
 - **Field Testing** – Not only did the Center get feedback from intermediate partners like the financial advisors, but the Center also got input from actual plan sponsors that were open to having their DC plans examined from a behavioral health perspective.

Key Takeaways

1. **As you begin to think about implementing new initiatives, think about Behavioral GRIT™** - This includes exploring the goals of constituents, your plans for incorporating research (more in Chapter 6), the context and processes regarding innovation (more in Chapter 4), and capabilities and processes for testing (more in Chapter 6). In this chapter, we saw that the stars were very aligned for the PlanSuccess efforts, although I hinted that some

aspects might be more difficult to replicate to other situations, such as leveraging an existing base of specialized research and acquiring unique resources for innovation.

2. **Don't forget to consider other subareas of behavioral architecture and the degree of personalization** – As I alluded to in this chapter, the 3x3 framework for PlanSuccess mostly addresses information and choice architecture considerations. The notion of process architecture (which will be discussed in Chapter 4) is largely unaddressed. And the DC world as a whole is largely built around mass approaches (e.g., as opposed to personalized approaches). So that is also an area of the world that is largely unaddressed. Whether addressing these areas is appropriate or achievable is another story, but you should at least consider unaddressed areas (see Figure 1.6 in Chapter 1).
3. **Remember to think about the organizational model and key implementation elements you'll need to succeed** – Here Allianz Global Investors utilized an Innovation Center model at its core, along with an Advisory Board. I call these the predominant organizational model and implementation elements. To implement a behavioral science initiative, a company generally uses one predominant organizational model. I outline five predominant organizational models in Appendix A. A company can then use multiple implementation elements, such as an advisory board, a behavioral audit, or education program. I also outlined a number of implementation elements in Appendix A.