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Potential and Pitfalls of Applying Theory to the Practice of Financial Education

Researchers are increasingly using interdisciplinary theory to bring rigor to the practice of financial education. Practitioners often do not see the value of the theory because it does not coincide with their observations of how people behave, and researchers do not yet have enough experience with interdisciplinary theory to demonstrate its usefulness to practitioners. If carefully applied, theory can be used to set appropriate financial goals and to positively change consumers' financial behaviors. Better communication can bridge the gap between theory and practice to the benefit of the consumer.

As personal finance seeks to define and establish itself, researchers are increasingly using theory to bring rigor to the practice of financial education. Researchers sometimes find themselves at odds with practitioners who feel that theory is removed from their work or world. Practitioners often do not see the value of theory because they believe it does not coincide with anecdotal evidence from professional experience. And because of the interdisciplinary nature of the field, researchers are not yet comfortable enough with theory to effectively demonstrate its usefulness to practitioners. Unfortunately, the result is that practitioners fail to realize how theory has helped the work of financial education thus far, and what is often lost in the conflict is a dialogue on where we should go from here.

Campbell (2006) describes "positive household finance" as a study of how households do behave and "normative household finance" as a study of how households should behave. He surmises that, with a few modifications, standard finance theory can rationalize the behavior of most households and thereby resolve the discrepancy between actual and optimal behavior. However, some households still make "investment mistakes"

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because of which their actual behavior diverges significantly from what is optimal. Financial education can help such households resolve their mistakes. In other words, the link between theory and education is clear—normative financial theory defines the goal and financial education helps households who make mistakes change their behavior to reach that goal.

For the personal finance profession, the link between theory and financial education is not often this straightforward. First, because of its interdisciplinary nature, the profession has a number of theories from which to choose (e.g., Schuchardt et al. 2007). Second, while the tasks of financial education have been clearly identified as (1) defining financial success, (2) helping people change their behavior to achieve financial success, and (3) evaluating whether financial success has been achieved, the role of theory in helping us perform these tasks has not yet been clearly established.

USING THEORY TO DEFINE FINANCIAL SUCCESS

Financial practitioners often use simple rules of thumb to set goals for financial success. For example, they recommend that more risk-averse investors hold a higher ratio of bonds to stocks in their portfolio. However, this popular advice has been hard to reconcile with what theory says is optimal (Canner, Mankiw, and Weil 1997).

Theory may thus help practitioners identify the wrong goals. Theory may also provide practitioners with a baseline for the right goals. The most commonly used theory in the personal finance profession is the life cycle theory of consumption (Ando and Modigliani 1963; Modigliani and Brumberg 1954, 1980). As a positive theory, it predicts that individuals make consumption and savings decisions based on their life expectancy and expected lifetime income. It has been tested empirically, critiqued, and refined to include uncertain lifetimes, bequests, and unexpected life events—a literature too vast to review here but one from which practitioners could gain many insights. But arguably the most interesting development for practitioners is that the life cycle framework is now being considered as a normative theory, and as such, it works much better as a goal for consumers than rules of thumb (Deaton 2005; Kotlikoff 2006). However, the complexity of the theory makes it a challenge; it is more computationally intensive than following rules of thumb. Herein lies a role for practitioners—to help consumers use life cycle theory to set financial goals. Practitioners in turn can benefit from advances in theory-based computational software like ESPlanner (Kotlikoff 2006).

What prevents practitioners from recommending theory-based financial goals? Practitioners sometimes distrust theory because it does not coincide with their observations of how people behave. However, in the seminal views of Friedman (1953), theory was never meant to be "realistic" in the descriptive sense of the term. The true test of positive theory is not its ability to explain an individual's personal perceptions but its ability to account for broad patterns in research data. Well-established theories have been repeatedly tested for the accuracy of their predictions and implications.

For example, the life cycle model should be judged not by whether its assumption of utility-maximizing consumers fits people's personal expectations or experiences but by whether its predictions match real-world savings and consumption data. If the theory passes this test, then it can be used to predict the consequences, say, of adopting a certain consumer policy. A normative judgment can then be made about whether the predicted consequence, and therefore the policy, is desirable. Seen from this perspective, theory can provide practitioners with a baseline for how consumers behave and give them a context for evaluating policies relevant to financial education.

USING THEORY TO CHANGE BEHAVIOR

If we accept that consumers make "investment mistakes," the next challenge is to apply theory to financial education in order to change consumer behavior. Current research attempts to apply theories from various fields to model the impact of financial education. It often makes parallels between financial and other behaviors, such as health or risk-taking behaviors. For instance, a growing body of literature looks at the process of changing financial behavior within the context of the transtheoretical model of change (e.g., Lown 2007; Shockey and Seiling 2004; Xiao et al. 2004). The model, which is based on the work of Prochaska (1979) and Prochaska and DiClemente (1983), integrates major psychological theories into a theory of health behavior change. It has successfully helped individuals engage in healthy behaviors like smoking cessation and exercise.

According to the transtheoretical model of change, behavior change involves progressing through a series of stages, with individuals commonly relapsing before successfully giving up negative behaviors or engaging in positive behaviors. Researchers and practitioners use the theory to identify the stage at which individuals are ready and able to change their behavior. They then apply appropriate educational interventions tailored to meet individuals' specific needs at that stage.

Theories like transtheoretical model of change provide insight into how practitioners might help individuals change their financial behaviors. However, their applicability is limited by differences between the field from which they originate and the field of personal finance. To begin with, the theories need to be modified to incorporate external factors (e.g., exogenous financial shocks, limited access to financial services, and changes in life circumstances) that may prevent individuals from being able to change particular financial behaviors. Also, when we talk about health, we can indisputably identify positive health behaviors. Can we say the same for financial behaviors? What some would consider positive financial behavior has been deemed harmful to financial health by others (Kotlikoff 2006). Moreover, when goals are in dispute, benchmarks are difficult to set. Individuals' health behaviors have been researched long enough to establish when and how behavior change occurs and what types of educational interventions work best. The transtheoretical model of change was developed after years of such research. This research was then used to establish key benchmarks (i.e., thirty days or six months) to identify when individuals were at certain stages of the behavior change process. However, it is not yet clear that the same benchmarks are appropriate for financial behaviors. The field of personal finance could benefit from research that simply tracks consumers' financial behaviors long enough to see when behavior actually changes, why it changes, and what the role of financial education is in motivating the change.

USING THEORY TO EVALUATE FINANCIAL SUCCESS

To assess the role of financial education in motivating behavior change, researchers have focused on defining and quantifying financial success. Their efforts have been tied to program evaluation research, which models and measures the impact of financial education on consumer behavior (e.g., see Lyons 2005; Lyons et al. 2006).

It is vital for researchers and practitioners to know whether financial education indeed changes consumers' financial behaviors. Of course, reality lacks the controls of a laboratory. Many other factors influence financial behaviors, which impair researchers' ability to isolate the impact of financial education. Even rigorous studies that use control groups and longitudinal analysis have struggled with this issue. At best, most researchers are able to show "anticipated" or "planned" changes in financial behavior (e.g., Lyons 2005; Lyons et al. 2006). While there is some evidence to show that planned financial behavior may be a good predictor of actual financial behavior (e.g., Muske and Winter 2004), more studies are needed to help develop a reliable predictor of actual behavior change—perhaps something akin to a credit scoring model.

Researchers also have difficulty selecting appropriate outcomes that match the financial capabilities of their target audience. If inappropriate measures are selected, they may overstate or underestimate the impact that financial education has on financial behaviors. This is particularly important when measuring behavior change in low-to-moderate income populations. Many financial education programs that target low-income consumers focus primarily on helping them increase savings and reduce debt. However, Scholz and Seshadri (2007) have used life cycle theory to show that low-income households are already behaving optimally. While we would like them to save more and build wealth, they are doing the best they can, given their financial constraints. Thus, if financial education programs ignore what theory suggests, they may fail simply because they have set infeasible goals for their target audience.

In the end, financial education itself rarely changes an individual's financial circumstances. Some individuals with limited financial resources do not possess the means to meet program goals to increase savings, pay bills, and reduce debts, no matter how much financial education they receive. This is not to suggest that practitioners should stop fostering behavior change if individuals are unable to put it into immediate practice. Nor does it mean that researchers should stop including such outcomes and indicators in their models. However, in both research and practice, greater care should be exercised when selecting outcomes and indicators for particular target groups. And such care can be guided by how these factors are linked to theory.

There has been a push for more standardized financial education benchmarks and measurements that can be used nationally to measure program impact and make comparisons across programs (e.g., Fox, Bartholomae, and Lee 2005; Lyons 2005; Lyons et al. 2006; U.S. Government Accountability Office 2004). However, experience has shown that it is extremely difficult to come up with a single model or approach that explains individual financial behavior because both individual financial needs and financial education programs vary widely. In the end, the impact of financial education on individual consumer decision making and economic well-being cannot be measured by a single all-encompassing approach to program evaluation.

THEORY IS THE BASIS FOR PRACTICE

Researchers are being pressed to increase the rigor of applied work related to financial education. Organizations and funders want to know whether financial education is working. As a result, we have seen a spurt in papers that borrow theoretical frameworks from other disciplines to assess the role that financial education plays in changing consumers' financial behaviors.

The work to date provides a promising foundation for rigorous, theory-based approaches to financial education. However, researchers and practitioners both need to be cognizant of the proper use of theory. Positive economic theory cannot be depended upon to "explain" financial behavior (Friedman 1953). Theories from psychology and health need to be modified before they can be applied to changing financial behavior. And financial education programs cannot be evaluated using a "one-size-fits-all" approach. The interdisciplinary nature of personal finance also poses a challenge. Before researchers can communicate the usefulness of theory to practitioners, they need to develop a better understanding of the theories themselves, especially those outside their own field.

Theory provides context, and a baseline, for what consumers should be doing in practice. Ignoring theory would not be a problem if practitioners' anecdote-based recommendations always led to consumers making optimal financial decisions. Yet, there are some recommendations that theory has established are not optimal (Kotlikoff 2006). In these instances, practitioners might be ignoring theory to the detriment of consumers' financial well-being.

Authors of noteworthy studies appearing in *Journal of Consumer Affairs* or other journals have a duty to better communicate the pragmatically useful theoretical developments to practitioners. In turn, practitioners have a responsibility to be receptive to theory-based recommendations when they are beneficial to consumers.

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