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van Doorn, Jenny; Mende, Martin

Published in:
Journal of Service Research

DOI:
[10.1177/1094670514559001](https://doi.org/10.1177/1094670514559001)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2015

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

van Doorn, J., & Mende, M. (2015). Coproduction of Transformative Services as a Pathway to Improved Consumer Well-Being: Findings From a Longitudinal Study on Financial Counseling. *Journal of Service Research*, 18(3), 351-368. <https://doi.org/10.1177/1094670514559001>

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Coproduction of Transformative Services as a Pathway to Improved Consumer Well-Being: Findings From a Longitudinal Study on Financial Counseling

Martin Mende¹ and Jenny van Doorn²

Journal of Service Research
2015, Vol. 18(3) 351-368
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sagepub.com/journalsPermissions.nav
DOI: 10.1177/1094670514559001
jsr.sagepub.com

Abstract

Although many consumers turn to financial counseling to improve their financial well-being, the effectiveness of these counseling services remains nebulous and the exact mechanisms through which they improve consumer well-being require further research. This longitudinal research demonstrates that consumers' coproduction of financial counseling services is pivotal for increasing their credit scores and for decreasing their financial stress. Drawing on self-determination theory, this study also shows that financial literacy, consumer involvement, and attachment styles are important drivers of coproduction. Involvement plays a moderating role, such that higher involvement substitutes for lower levels of financial literacy and mitigates the negative effects of attachment avoidance on coproduction. These findings help both counseling agencies and public policy makers improve the effectiveness of financial counseling. Financial counselors should track their customers' objective and subjective financial literacy, involvement, and attachment styles, then segment customers, and, finally, tailor the service provision accordingly, to leverage coproduction as the pathway to consumers' financial well-being. From a public policy perspective, the findings suggest that efforts to improve consumer financial literacy are important but should be supplemented with programs designed to increase consumer involvement in financial counseling; this combination promises to foster coproduction and improve consumers' financial well-being.

Keywords

coproduction, financial counseling, self-determination theory, financial literacy, involvement, attachment style, well-being, financial stress, self-regulation theory

Transformative services aim to create “uplifting changes and improvements in the well-being of consumer entities” (Anderson, Ostrom, and Bitner 2011, p. 3). Accordingly, a core area of Transformative Service Research (TSR) is financial counseling, a service designed to reestablish consumers' financial well-being (e.g., by increasing their credit scores and decreasing their perceived financial stress). The relevance of financial counseling has sharply risen in the past decade, reflecting the financial strain that many households experience (Bolton, Bloom, and Cohen 2011; Schwenk 2011). For example, the total consumer debt in the United States exceeded US\$11 trillion in the second quarter of 2013 (Federal Reserve Bank of New York 2013), and 54 million U.S. households carry more than US\$15,000 of credit card debt on average (Guo et al. 2013). Moreover, in a national survey of U.S. households, one in five respondents stated that their debt has a high negative impact on their health, and one in four reported that their debt has a high negative impact on their family life (Ferguson-Dunn and Mirzaie 2012).

Against this background, it is not surprising that each year millions of consumers seek help in managing their debt from counseling agencies (Guo et al. 2013; O'Neill et al. 2006).

Ironically, the effectiveness of financial counseling remains somewhat nebulous, and the exact mechanisms through which counseling helps improve consumer well-being require further research (Bolton, Bloom, and Cohen 2011; Willis 2008). To address this issue, we identify coproduction, or a customer's participation in creating the service (Lusch and Vargo 2006), as a pathway to financial well-being. Financial counseling demands high levels of coproduction; that is, its success depends heavily on the collaborative behavior of customers.¹ Although coproduction has received widespread attention in service research (e.g., Bendapudi and Leone 2003; Kellogg, Youngdahl, and Bowen 1997), this stream of literature has an important limitation. Service scholars have traditionally linked

¹ College of Business, Florida State University, Tallahassee, FL, USA

² Faculty of Economics and Business, University of Groningen, Groningen, the Netherlands

Corresponding Author:

Martin Mende, College of Business, Florida State University, Rovetta Business Annex, P.O. Box 306110, Tallahassee, FL 32306, USA.
Email: mmende@fsu.edu

coproduction to organizational benefits (e.g., productivity gains when customers act as partial employees) or positive customer responses (e.g., satisfaction) that drive loyalty to the firm (e.g., referrals, repurchase; Etgar 2008; Mills and Morris 1986). In contrast, few researchers have examined the association between coproduction and *consumer* (rather than organizational) well-being (Anderson et al. 2013; Ostrom et al. 2010). To address this void in the literature, we focus on the following question: Can customer coproduction positively affect consumers' *objective financial well-being* (i.e., increase their credit score) and *subjective financial well-being* (i.e., reduce their perceived financial stress)? In answering this question, we make the following contributions.

First, we develop a conceptual framework on customer coproduction that is fundamentally grounded in self-determination theory (SDT), but it is enriched by novel linkages with attachment theory and self-regulation theory (SRT). SDT explains the conditions that facilitate a person's motivation to make well-being-oriented changes (Ryan and Deci 2000). Specifically, SDT identifies a person's competence, autonomy, and relatedness as crucial drivers of behavioral change. Consistent with SDT, we show that consumer financial literacy (= $SDT_{\text{competence}}$), involvement (= SDT_{autonomy}), and attachment style (= $SDT_{\text{relatedness}}$) determine coproduction in financial counseling. Linking SDT with insights from SRT and attachment theory helps examine the interplay among these three factors. In this regard, we find that consumer involvement moderates the effects of both financial literacy and attachment avoidance on coproduction. Specifically, involvement has (1) a *substitution effect* on financial literacy and (2) a *buffering effect* on attachment avoidance in the coproduction of transformative services.

Second, we broaden the analytical lens of coproduction research by positioning consumer well-being as the outcome variable (rather than satisfaction or loyalty). We go beyond recent (cross-sectional) research on credit counseling (Guo et al. 2013) to capture both consumers' *objective* well-being (as an increase in their credit score) and their *subjective* well-being (as a decrease in their financial stress) in our longitudinal research. We find that consumers' objective financial well-being (i.e., change in credit score) mediates the positive effect of coproduction on their subjective financial well-being (i.e., perceived financial stress). This insight not only contributes to TSR but also enriches the literature on personal finance, in which more "theory-based longitudinal studies are needed to better understand how financial behaviors are formed or changed to positive directions" (Schuchardt et al. 2009, p. 86).

Third, beyond its theoretical contributions, our work has actionable implications for transformative service providers. Because improving consumers' financial literacy is often a complex and slow process (Willis 2008), our results suggest that financial counselors can focus on increasing consumers' involvement, which helps compensate for low financial literacy. In addition, service providers can increase the effectiveness of their offerings by better segmenting clients and customizing the service in light of client profiles (e.g., financial

literacy, involvement levels, and attachment styles). Such a segmentation-based, tailored approach to counseling promises to leverage customers' coproduction as a pathway to their financial well-being.

Finally, our research helps inform recent public policy efforts. As part of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the U.S. government created the Consumer Financial Protection Bureau, whose core responsibility is finding more effective ways to improve consumers' financial literacy and financial well-being. However, this public policy approach to consumer financial well-being tends to be limited by focusing on the mere issue of financial literacy per se (Hastings, Madrian, and Skimmyhorn 2012). What is needed to make public policy efforts more effective is a broader framework that includes financial literacy as one, *but not the only*, driver of consumer financial well-being (Willis 2008). Offering such an expanded analytical lens, we embed financial literacy into the broader context of coproduction, highlighting the interrelated mechanisms that help improve consumer financial well-being.

Customer Coproduction, Financial Counseling, and Financial Well-Being

Coproduction is the customer's "participation in the creation of the core offering itself" (Lusch and Vargo 2006, p. 284). Meuter and Bitner (1998) identify three types of service production: firm, customer, and joint production. Client-provider collaboration in financial counseling represents joint production. Counselors support clients by reviewing their financial situation and identifying ways to solve their financial problems, assisting them in developing realistic spending and money/credit management plans, and helping them prevent future financial problems (Kim, Garman, and Sorhaindo 2003). In parallel, counselors place significant responsibility on their clients, often assigning tasks such as decreasing household spending, making timely payments to creditors, reducing lines of credit, and finding ways to increase income (Kim, Garman, and Sorhaindo 2003). Thus, customer coproduction goes beyond encounters with counselors and includes considerable efforts over time to improve consumer financial well-being. Consistent with research on the psychology of well-being, we conceptualize financial well-being as having an objective and a subjective dimension (Argyle 2001; Diener et al. 1999). Objective well-being is measured with observable variables, whereas subjective well-being involves asking consumers how they perceive and feel about (domains of) their life (Argyle 2001). Accordingly, we regard credit scores as major indicators of consumers' objective financial well-being. Although credit scores have received little attention in TSR, they influence every major part of consumers' lives (Demyanyk 2010). Credit scores are crucial determinants of enabling/disabling consumers' access to a variety of fundamental offerings, including mortgages, credit cards, car loan and/or insurance, and utility services (Barakova et al. 2003; Fellowes 2006), and it is "well established that people with higher scores get better loans, have

better jobs, and pay lower insurance premiums than people with lower scores” (Demyanyk 2010, p. 1). Given that credit scores have such a comprehensive impact on their lives, many consumers monitor and strive to improve their scores. Indeed, in a recent poll by the National Foundation of Credit Counseling (NFCC), a majority of the consumers (56%) identified the improvement in their credit score as the personal finance goal with which they needed the most help (Cunningham 2012). Taken together, these insights suggest that credit scores are an important, albeit underresearched, objective outcome variable for TSR.

Although objective indicators help in describing consumers’ financial states, two individuals with similar objective indicators may assess their financial situation differently (O’Neill et al. 2006). Therefore, consumer finance scholars use perceived financial stress as an indicator of subjective financial well-being (Prawitz et al. 2006a). Data on the United States (2006 through 2012) show that financial stress is a rising phenomenon in many people’s lives (Ferguson-Dunn and Mirzaie 2013), particularly for consumers in financial counseling (Bagwell and Kim 2003; O’Neill et al. 2006). This is concerning because financial stress can have negative downstream effects on physical and mental health (e.g., anxiety, hypertension, insomnia, ulcers, depression; Bagwell and Kim 2003; Kim, Garman, and Sorhaindo 2003).

In summary, financial counseling aims to improve consumers’ objective and subjective financial well-being. Achieving this goal depends on coproduction, which leads to two major questions: (1) What are crucial determinants of customer coproduction in transformative service settings such as financial counseling? and (2) Is there a positive link between coproduction and consumer financial well-being? We address these questions by developing a framework of customer coproduction that is rooted in SDT but also leverages insights from attachment theory and SRT to better understand the mechanisms that determine coproduction in financial counseling. As our research is among the first to link coproduction and SDT, we begin with an introduction to the theory and its operationalization in our framework.

Coproduction in Financial Counseling and Consumer Financial Well-Being: A Framework Derived From SDT

SDT is a prominent theory on human motivation and volition that has recently been applied to behavioral change and well-being settings (e.g., medical treatments, exercise; Ryan et al. 2008). SDT argues that *competence*, *autonomy*, and *relatedness* are the three psychological needs that form the platform for a desired behavioral change (Ryan and Deci 2000).

First, the notion of *competence* underscores the need for individuals to experience confidence in their ability to influence outcomes and in making sustainable changes toward well-being (Ryan et al. 2008). We integrate the conceptual idea of SDT’s competence with research that shows how

consumers’ financial literacy influences their financial decisions. Therefore, we examine the role of consumer financial literacy as a determinant of coproduction in financial counseling. Second, SDT’s notion of *autonomy* emphasizes that required actions targeted at behavioral change need to be self-endorsed; that is, changes are sustainably enacted (only) if individuals come to value the focal behaviors “and personally endorse their importance” (Ryan et al. 2008, p. 3, emphasis added). The perceived importance of an offering rests on the definitional core of consumer involvement (Bloch and Richins 1983; Mittal 1995).² Therefore, we operationalize SDT’s autonomy through *consumer involvement in financial counseling*. Third, the idea of *relatedness* in SDT recognizes that a “sense of being respected, understood, and cared for is essential” in settings in which a provider guides another person toward change (Ryan et al. 2008, p. 3). As such, relatedness focuses on a person’s need to experience a sense of belonging with important others and to establish consistent, nurturing, and protective relationships with them (La Guardia et al. 2000). Note that SDT’s “construct of relatedness is conceptually rooted in attachment theory” (Hutman et al. 2012, p. 1; similarly, Deci and Ryan 2000; La Guardia et al. 2000). In turn, attachment theory posits that whether people can establish consistent, nurturing, and protective relationships is a function of their attachment style (Mikulincer and Shaver 2007). Therefore, we examine how attachment styles, as an indicator of consumers’ need for relatedness, influence coproduction.

In summary, our framework examines the interplay of consumers’ financial literacy (= competence), involvement (= autonomy), and attachment styles (= relatedness) as determinants of coproduction in financial counseling and, ultimately, financial well-being (see Figure 1).

Hypotheses Development

Following the flow of effects in Figure 1, we begin with hypotheses on drivers of coproduction. Then, we predict the impact of coproduction on consumers’ financial well-being.

Coproduction and the Interplay Between Financial Literacy and Involvement

There is a considerable debate about the definition of financial literacy (Huston 2010; Remund 2010), which we do not aim to reconcile. Rather, we follow Huston (2010) and distinguish *objective financial literacy* (i.e., testable knowledge and understanding of financial concepts) from *subjective financial literacy* (self-reported confidence and competence in financial matters). This distinction is consistent with research that separates what consumers know objectively from what they (subjectively) think they know (Alba and Hutchinson 2000; Carlson et al. 2009).

Customers’ objective financial literacy should increase coproduction because objectively knowledgeable consumers should better understand how to make valuable contributions to the service provision (Auh et al. 2007). Therefore, we predict

Figure 1. Conceptual framework: Coproduction as a pathway to consumer financial well-being.

that objective financial literacy has a positive effect on customer coproduction. Subjective financial literacy may also promote coproduction for two reasons. First, self-efficacy, or a person's judgment of her task-related capability, improves task performance (Stajkovic and Luthans 1998). Higher self-efficacy increases effort and persistence (Gist 1987), which in turn leads to better results. Service research also shows that aspects related to consumer self-efficacy help explain the trial and usage of self-service technologies (e.g., Meuter et al. 2005). Second, with greater self-perceived expertise, customers are more likely to prefer exerting control in the service process (Auh et al. 2007). This desire for control over the service process should increase the coproduction of customers with higher levels of subjective financial literacy. Consequently, we expect that both objective financial literacy and subjective financial literacy positively affect coproduction.

Hypothesis 1: Consumer (a) objective financial literacy and (b) subjective financial literacy are positively related to coproduction.

Beyond these main effects, we expect a positive interaction effect, such that objective financial literacy has a more pronounced positive effect on coproduction when consumers have higher (vs. lower) subjective financial literacy. From a theoretical lens, this prediction builds on the argument that as people develop objective skills in combination with a sense of self-efficacy, they should engage on a higher level and persist longer at focal tasks (Bandura 1982). From a substantive lens, the idea that the interplay of both dimensions is beneficial explains why financial literacy programs typically strive to improve *both* consumers' finance-related skills and their confidence in applying these skills (Lusardi and Mitchell 2007b). We therefore predict:

Hypothesis 2: The positive effect of objective financial literacy on coproduction becomes stronger with higher levels of subjective financial literacy.

In addition to competence, SDT underscores the role of autonomy as a person endorsing the importance of change-related behaviors. We capture this conceptual component through the construct of consumer involvement (Mittal 1995). Not every client may be highly involved in financial counseling, which helps explain why clients stop using this service. For example, according to the NFCC, 47% of clients in debt management programs simply drop out (Kim, Garman, and Sorhaindo 2003). We propose that consumer involvement exerts a main effect and an interaction effect (with financial literacy) on coproduction. Regarding the main effect, we note that involvement leads consumers to exert more effort when searching for information on a focal offering and when making a selection (Celsi and Olson 1988). Research in psychology and organizational behavior further supports this idea. For example, goal setting theory argues that goal involvement is positively related to goal commitment (Locke and Latham 2002). Thus,

Hypothesis 3: Consumer involvement is positively related to coproduction.

The interaction between involvement and (objective and subjective) financial literacy deserves attention because empirical results on the interplay between consumer involvement and knowledge remain equivocal (Park and Moon 2003). Merely being (or believing to be) financially literate may not always trigger consumers to activate their knowledge as coproducers. We theorize that consumer involvement captures the related motivational drive to do so. Consumer involvement is linked to the intensity of information processing, and higher levels

of involvement motivate higher levels of attention and comprehension; therefore, involvement is associated with a state that energizes consumers (Celsi and Olson 1988). Given this energizing effect, we predict a positive interaction, such that involvement and (objective and subjective) financial literacy reinforce each other with regard to coproduction.

Hypothesis 4: The positive effect of consumer (a) objective financial literacy and (b) subjective financial literacy on coproduction becomes stronger with higher levels of consumer involvement.

Coproduction and the Interplay Between Attachment Styles and Involvement

Consistent with research on service relationships (Bendapudi and Berry 1997; Gremler and Gwinner 2000), SDT underscores people's need to feel connected with and significant to others with whom they collaborate to achieve change. This conceptual component is important in our context because counseling is a high-contact service and the relationship between counselor and client is likely an important platform for the service's effectiveness. However, not every client is equally willing and/or able to build such interpersonal relationships. Notably, customers' attachment styles explain how they distinctly engage in service relationships (Mende and Bolton 2011). Therefore, we expect attachment styles to influence customers' coproduction in the relationship with their financial counselor.

An attachment style is the systematic pattern of relational expectations, needs, emotions, and social behaviors that results from the internalization of a particular history of attachment experiences (Mikulincer and Shaver 2007). Customer attachment styles are best conceptualized along two quasi-orthogonal dimensions: attachment anxiety and attachment avoidance (Brennan, Clark, and Shaver 1998). *Customer attachment anxiety* is the extent to which a customer worries that the service provider might not be available in times of need, has an excessive need for approval, and fears rejection and abandonment from this provider. *Customer attachment avoidance* is the extent to which a customer has an excessive need for self-reliance, fears depending on the service provider, distrusts the provider's goodwill, and strives for emotional and cognitive distance from the provider. We refer to customers who score low on both dimensions as having a *secure* attachment style toward the provider; those with high scores in one or both of the dimensions have an *insecure* attachment style (Mikulincer and Shaver 2007).

Levels of attachment security influence customers' assessment of a service provider (e.g., trust in an insurance agent) and their loyalty to a service firm (Mende and Bolton 2011; Mende, Bolton, and Bitner 2013). However, how attachment styles influence coproduction has received scant attention. Two insights suggest that attachment security affects customer coproduction: First, attachment styles influence how people engage in collaborative problem solving with others, which is at the heart of coproduction. Lopez et al. (1997, p. 189) find

that attachment styles "orient people either toward or away from cooperative problem solving," leading more secure people to display more collaborative problem solving than their less secure peers. Second, research in management shows that employees with a secure attachment style have a more distinct preference for relational leadership behaviors (i.e., behaviors that promote collaboration between peers and contribute to more healthy, supportive, and effective working relationships; Boatwright et al. 2010). Thus,

Hypothesis 5: Customer (a) attachment anxiety and (b) attachment avoidance toward the service provider are negatively related to coproduction.

Hypothesis 5 raises the question whether the negative effects of attachment insecurity can be buffered to facilitate coproduction. Consumer involvement might trigger such a buffering effect because the human attachment system operates flexibly and "in interaction with other behavioral systems" (Sroufe and Waters 1977, p. 1185). Specifically, building on SRT (Baumeister et al. 2006), we expect that the human capacity to self-regulate can influence the attachment system. Self-regulation allows people to change their inner states and their behavior in order to match ideals, pursue goals, or conform to the expectations of others (e.g., follow social norms; Baumeister et al. 2006). Self-regulation typically emerges in the form of people overriding or inhibiting their initial impulses in favor of responses that are more desired and situation appropriate. In this regard, SRT emphasizes the relevance of two phases, a monitoring phase and an operating phase, as ingredients of self-regulation (Baumeister and Heatherton 1996). In the monitoring phase, people compare their actual self with context-relevant standards (e.g., goals, ideals). If this monitoring indicates that the self falls short of these standards, a response is initiated in the operating phase, such that *one internal process overrides another* to improve the current state; notably, this overriding mechanism serves the self's best interest (Muraven and Baumeister 2000). The question is whether urges triggered by attachment styles may be overridden or, at least, inhibited? Research by Vohs, Baumeister, and Ciarocco (2005) on the association of attachment styles and self-disclosure shows that this may be the case. Current norms suggest that a medium level of self-disclosure is appropriate in encounters with strangers. However, insecurely attached people are inclined to display self-disclosure behaviors that are inconsistent with this norm (i.e., anxious people self-disclose excessively, avoidant people self-disclose minimally), which creates "a tension between inner, latent motivation and situational demands" (Baumeister et al. 2006, p. 1793). Interestingly, Vohs, Baumeister, and Ciarocco (2005) show that people can override the impulses triggered by their insecure attachment style and self-regulate in order to behave in a norm-appropriate way (i.e., adjust their self-disclosure). This finding is consistent with the notion that the attachment system allows individuals to operate in a goal-oriented manner, responding to a focal context and in light of a certain goal

(Cassidy 1999). In our context, because “self-control behaviors are designed to maximize the long-term best interests of the individual” (Muraven and Baumeister 2000, p. 247), high involvement (i.e., clients’ understanding that financial counseling is important and in their long-term best interests) may help override the urges triggered by attachment styles and motivate additional coproduction effort. Customers who regard credit counseling as important are more likely to reflect on their coproduction and realize its benefits for their counseling success. This realization should mitigate the detrimental impact of the client’s attachment style. Accordingly, the negative effects of attachment anxiety and avoidance on coproduction should decrease for consumers who are more (vs. less) involved.

Hypothesis 6: The negative effect of (a) attachment anxiety and (b) attachment avoidance on coproduction decreases with higher levels of consumer involvement.

Customer Coproduction of Financial Counseling and Financial Well-Being

The fundamental goal of financial counseling is to improve consumer financial well-being. We believe that coproduction influences both objective financial well-being (i.e., credit scores) and subjective financial well-being (i.e., perceived financial stress). Coproduction should have a positive effect on objective financial well-being because customers who engage in higher levels of coproduction reduce the risk of coproducing suboptimal outcomes (Etgar 2008; Kellogg, Youngdahl, and Bowen 1997). In other words, as emphasized earlier, the success of financial counseling depends heavily on the collaborative behavior of clients. Financial counselors strive to provide personalized guidance and to develop problem-specific solutions for their clients. Accordingly, clients influence the outcome of the service they receive because their inputs help counselors tailor the problem solution to their specific needs, preferences, and circumstances. Higher coproduction levels should allow clients to provide more detailed and relevant input, which in turn enables the counselor to generate a more tailored problem diagnosis and solution. Notably, as part of the problem solution, counselors typically also place significant responsibility on clients. Consequently, customers’ coproduction in this context includes making a variety of (substantial) changes to their habits and lifestyle (e.g., decrease spending, increase income, reduce lines of credit, make loan payments regularly and on time, increase savings; Guo et al. 2013; Kim, Garman, and Sorhaindo 2003). Customers who engage in such coproduction behaviors to a higher (lower) degree should achieve a more (less) positive effect on their objective financial well-being. We hypothesize:

Hypothesis 7: Coproduction is positively related to objective financial well-being.

Finally, we propose a mediating role of objective financial well-being. We recognize that coproduction may directly affect consumers’ subjective financial well-being. For example, consumers may experience positive affect (e.g., hope) when they coproduce because their participation may trigger feelings of making progress and a sense of having a positive impact on their financial situation. This effect should directly decrease their financial stress.³ This logic notwithstanding, improvements in consumers’ objective financial well-being over time (i.e., an increase in credit score) might mediate the effect of coproduction on their subjective financial well-being (i.e., financial stress). This rationale is consistent with work that shows how indicators of objective financial well-being help predict a person’s stress level (Brockett and Golden 2007); it is also consistent with studies suggesting that debt has detrimental downstream effects on psychological well-being (Marmot et al. 1997; Webley and Nyhus 2001). Presuming a negative relationship between a change in credit score and financial stress, we hypothesize:

Hypothesis 8: The effect of coproduction on consumer subjective financial well-being is mediated by the change in objective financial well-being.

Hypotheses Testing

Data Collection and Participants

Our longitudinal study surveyed clients of financial counseling agencies in the United States. Using a paid online consumer panel, we surveyed clients twice (in March and December 2012).⁴ Table 1 displays the survey variables and the corresponding measures. In Wave 1 (March 2012), 451 consumers participated, receiving US\$1 for their participation; only these participants were eligible to join Wave 2 (December 2012, US\$3 for participation). Among these 451 consumers, 123 participated in Wave 2 (27% response rate). Because of missing or unusable responses, the analyses included 115 respondents.

Sample Descriptives

Seventy percent of the respondents were women. In all, 45% were younger than age 34, 44% were between ages 35 and 54, and 11% were aged 55 or older. The level of education varied, with approximately 9% having a high school diploma or less, 37% having some college, and 54% holding a bachelor’s degree or higher. The median household income was between US\$35,000 and US\$50,000 per year. In addition, 61% of the respondents were married (or lived in a de-facto marriage) and 39% were single or divorced. The average household size was three persons (with, on average, one child). Finally, 59% of the respondents worked less than 6 months with their counselor, 26% 6–12 months, and 15% 1 year or more.

Table 1. Measurement of Variables.

Construct	Measures	Coefficient α	M (SD)	Source
Coproduction	<ul style="list-style-type: none"> I prepare myself (and documents, etc.) before meeting with my counselor I try to work cooperatively with my counselor I do things to make my counselor's job easier I openly discuss my financial situation with my counselor to help him or her find the best solution for me I perform tasks to help my counselor serve me better I fully cooperate with my counselor 	.90 (Wave 2)	4.44 (.70)	Adapted from Auh et al. (2007)
Objective financial literacy	<ul style="list-style-type: none"> Suppose you had US\$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow? (more than US\$102/exactly US\$102/less than US\$102/do not know) Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, would you be able to buy with the money in this account? (more than today/exactly the same as today/less than today/do not know) Do you think that the following statement is true or false? "Buying a single company stock usually provides a safer return than a stock mutual fund." (true/false/do not know) <p>Measure was constructed by counting the number of correct answers</p>	n.a. (Wave 1)	2.19 (.88)	Lusardi and Mitchell (2008)
Subjective financial literacy	<ul style="list-style-type: none"> I am uncomfortable dealing with financial matters (R) I know a great deal about financial matters I am very confident discussing financial matters 	.67 (Wave 1)	4.27 (1.31)	Adapted from Mitchell and Dacin (1996)
Customer attachment anxiety	<ul style="list-style-type: none"> I worry about being neglected by my counselor as a client My counselor changes how he or she treats me for no apparent reason I worry that my counselor doesn't really appreciate me as a client I worry that my counselor doesn't care about me as much as I care about him or her 	.89 (Wave 1)	2.59 (1.30)	Adapted from Mende and Bolton (2011)
Customer attachment avoidance	<ul style="list-style-type: none"> It is a comfortable feeling to depend on my counselor (R) I am comfortable having a close relationship with my counselor (R) It's easy for me to feel close toward my counselor (R) It helps to turn to my counselor in times of need (R) 	.83 (Wave 1)	3.70 (1.25)	Adapted from Mende and Bolton (2011)
Involvement	<ul style="list-style-type: none"> To me, credit counseling services are 1 = <i>unimportant</i>, 7 = <i>important</i> To me, credit counseling services are 1 = <i>not essential</i>, 7 = <i>essential</i> 	.78 (Wave 1)	5.86 (1.27)	Cannon and Perreault (1999)
Objective financial well-being	<ul style="list-style-type: none"> Credit score per March 2012 Credit score per December 2012 	n.a. n.a.	585.63 (113.42) 620.09 (113.96)	
Subjective financial well-being	<ul style="list-style-type: none"> In general, how stressed do you feel about your personal finances? (1 = <i>no stress at all</i>, 10 = <i>overwhelming stress</i>) What do you feel is the level of your financial stress today? (1 = <i>no stress at all</i>, 10 = <i>overwhelming stress</i>) How satisfied are you with your present financial situation? (1 = <i>completely dissatisfied</i>; 10 = <i>completely satisfied</i>) How do you feel about your current financial situation? (1 = <i>feel comfortable</i>, 10 = <i>feel overwhelmed</i>) How stressed do you feel about your personal finances in general? (1 = <i>no stress at all</i>, 10 = <i>overwhelming stress</i>) How often do you worry about being able to meet normal monthly living expenses? (1 = <i>never</i>; 10 = <i>all the time</i>) How often does this happen to you? You want to go out to eat, go to a movie or do something else and don't go because you can't afford to (1 = <i>never</i>; 10 = <i>all the time</i>) How frequently do you find yourself just getting by financially and living paycheck-to-paycheck? (1 = <i>never</i>, 10 = <i>all the time</i>) 	.90 (Wave 1) .93 (Wave 2)	6.78 (1.88) 6.07 (2.05)	Prawitz et al. (2006a, 2006b)

Note. (R) = Item was reverse keyed; n.a. = not applicable. If not indicated differently, items were measured on 7-point Likert-type scales (1 = *strongly disagree*, 4 = *neutral*, and 7 = *strongly agree*).

Measures

As Table 1 displays, we measured *coproduction* with 6 items; we adapted 3 items from prior work on coproduction in financial contexts (Auh et al. 2007) and developed the other 3 items for this research (e.g., capturing the importance of honestly sharing information with the counselor). We assessed objective financial literacy with a measure developed by Lusardi and Mitchell (2008), which we used for three reasons: First, this measure assesses the knowledge of fundamental financial concepts. Second, this measure differentiates well between high- and low-literate consumers (Lusardi and Mitchell 2008). Third, numerous surveys have used these questions, which allows for interstudy comparison of results. We measured subjective financial literacy with 3 items adapted from Mitchell and Dacin's (1996) work on consumer expertise. We measured *customer attachment styles* with an 8-item scale (Mende and Bolton 2011) and involvement using 2 items adapted from Cannon and Perreault (1999).

We captured objective financial well-being as the consumers' credit scores (respondents provided their credit score per March and December 2012). We measured subjective financial well-being with four questions about the consumer's financial situation and four questions about the consumer's sense of financial well-being (Prawitz et al. 2006a, 2006b; Table 1). Finally, we measured a broad set of *covariates*, including consumers' sociodemographics (age, gender, education, and income), their family configuration (marital status and number of children), and the essential characteristics of their relationship with the counselor (relationship duration and frequency of interactions). Table 1 displays the corresponding descriptive statistics for respondents in our sample, and Table 2 displays the correlations among constructs.

Analysis and Results

We used the following system of three equations to test the hypothesized relationships in our model:

$$\begin{aligned} \text{coproduction}_{t+1} = & \alpha_1 + \beta_1 \cdot \text{objFL}_t + \gamma_1 \cdot \text{subjFL}_t + \delta_1 \cdot \text{anx}_t \\ & + \phi_1 \cdot \text{avoid}_t + \lambda_1 \cdot \text{involve}_t \\ & + \theta_1 \cdot \text{objFL}_t \times \text{involve}_t \\ & + \varphi_1 \cdot \text{subjFL}_t \times \text{involve}_t \\ & + \kappa_1 \cdot \text{objFL}_t \times \text{subjFL}_t \\ & + \vartheta_1 \cdot \text{anx}_t \times \text{involve}_t + \psi_1 \cdot \text{avoid}_t \times \text{involve}_t \\ & + \sum_{k=1}^8 \chi_{1k} \cdot \text{covariates}_t + \varepsilon_1 \end{aligned}$$

$$\begin{aligned} \text{objFWB}_{t+1} = & \alpha_2 + \beta_2 \cdot \text{objFWB}_t + \gamma_2 \cdot \text{coproduction}_{t+1} \\ & + \sum_{k=1}^8 \chi_{2k} \cdot \text{covariates}_t + \varepsilon_2 \end{aligned}$$

$$\begin{aligned} \text{subjFWB}_{t+1} = & \alpha_3 + \beta_3 \cdot \text{subjFWB}_t + \gamma_3 \cdot \Delta \text{objFWB} \\ & + \delta_3 \cdot \text{coproduction}_{t+1} + \sum_{k=1}^8 \chi_{3k} \cdot \text{covariates}_t \\ & + \varepsilon_3, \end{aligned}$$

where

*coproduction*_{t+1} = customer coproduction at *t* + 1 (Wave 2),
*objFL*_t = objective financial literacy at *t* (Wave 1),
*subjFL*_t = subjective financial literacy at *t* (Wave 1),
*anx*_t = attachment anxiety at *t* (Wave 1),
*avoid*_t = attachment avoidance at *t* (Wave 1),
*involve*_t = involvement at *t* (Wave 1),
*covariates*_t = covariates (gender, living with partner, education, age, children, income, relationship duration, average number of interactions per month) at *t* (Wave 1),
*objFWB*_{t/t+1} = objective financial well-being at *t* (Wave 1, 2; credit score, log-transformed⁵),
*subjFWB*_{t/t+1} = subjective financial well-being at *t* (Wave 1, 2; perceived financial stress), and
 ΔobjFWB = change in objective financial well-being (Δ credit score, log-transformed⁵).

We estimated our model in Stata 12, using a seemingly unrelated regressions estimator to account for the correlation of disturbances (Greene 2011). As Table 3 displays, our model explains approximately 50% of the variance in coproduction, 85% of the variance in objective financial well-being, and 52% of the variance in subjective financial well-being.

Drivers of coproduction. Supporting Hypotheses 1a and 1b, both objective financial literacy ($\beta = 1.030, p < .01$) and subjective financial literacy ($\beta = .461, p < .05$) have positive effects on coproduction. In contrast with Hypothesis 2, the interaction between objective financial literacy and subjective financial literacy has no significant effect on coproduction ($\beta = -.006, p > .10$). Supporting Hypothesis 3, involvement is positively related to coproduction ($\beta = .631, p < .01$). Turning to the interaction proposed in Hypothesis 4, the positive effect of objective and subjective financial literacy on coproduction is *smaller* at higher levels of involvement (for objective financial literacy $\times$ involvement: $\beta = -.153, p < .01$; for subjective financial literacy $\times$ involvement: $\beta = -.078, p < .05$). That is, although we find significant interactions, the effects are in the opposite direction than predicted in Hypothesis 4. Attachment anxiety does not have a significant effect on coproduction ($\beta = .027, p > .10$) nor does it interact with involvement ($\beta = -.016, p > .10$); these results fail to support Hypotheses 5a and 6a. In contrast, attachment avoidance significantly decreases coproduction ($\beta = -.568, p < .01$), supporting Hypothesis 5b. Moreover, higher levels of involvement mitigate the negative effect of attachment avoidance on coproduction ($\beta = .071, p < .05$), supporting Hypothesis 6b. Beyond our hypothesized effects, we note two interesting effects of

Table 2. Correlation Matrix.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) Customer coproduction _{t+1}	1.00														
(2) Obj. fin. literacy _t	.21**	1.00													
(3) Subj. fin. literacy _t	.04	.15	1.00												
(4) Attachment anxiety _t	-.24***	.03	-.19**	1.00											
(5) Attachment avoidance _t	-.30***	.10	-.08	.08	1.00										
(6) Involvement _t	.47***	.01	-.14	-.26***	-.28***	1.00									
(7) Credit score _t	.04	.08	.13	-.14	-.12	-.14	1.00								
(8) Credit score _{t+1}	.14	.10	.08	-.18*	-.09	-.09	.91***	1.00							
(9) Financial stress _t	.08	.07	-.31***	.08	.18*	.24***	-.12	-.16*	1.00						
(10) Financial stress _{t+1}	-.12	-.08	-.31***	.12	.16*	.15	-.29***	-.37***	.58***	1.00					
(11) Education	.07	.11	.32***	.09	-.09	-.17*	.16*	.14	.01	-.13	1.00				
(12) Age	.28***	.25***	.08	.02	.09	.17*	-.15	-.10	.19**	-.04	.26***	1.00			
(13) Number of children	-.04	.01	-.13	-.05	-.02	.09	-.26***	-.23**	.08	.09	-.14	-.05	1.00		
(14) Income	-.10	.16*	-.00	.12	.03	-.07	-.03	-.01	-.19**	-.20**	.14	.16*	.16*	1.00	
(15) Relationship duration	.01	.07	.01	-.02	.03	-.00	-.14	-.16*	-.15	.09	.13	.06	.10	.18*	1.00
(16) Interaction frequency	.16*	.02	.03	.06	-.17*	-.02	.10	.11	.09	-.03	.01	-.10	-.04	-.10	-.28***

Note. Obj. fin. Literacy = Objective financial literacy.

*** $p < .01$. ** $p < .05$. * $p < .10$.

Table 3. Results.

	Customer Coproduction _{t+1}		Objective Financial Well-Being (Credit Score _{t+1})		Subjective Financial Well-Being (Financial Stress _{t+1})	
	Coef.	SE	Coef.	SE	Coef.	SE
Objective financial literacy	1.030***	.369				
Subjective financial literacy	.461**	.222				
Objective Fin. Lit. × Subjective Fin. Lit.	-.006	.046				
Attachment anxiety	.027	.185				
Attachment avoidance	-.568***	.183				
Involvement	.631***	.210				
Objective Financial Literacy × Involvement	-.153***	.050				
Subjective Financial Literacy × Involvement	-.078**	.031				
Attachment Anxiety × Involvement	-.016	.030				
Attachment Avoidance × Involvement	.071**	.030				
Customer coproduction			.032**	.015	-.368*	.212
Covariates						
Male	-.017	.113	.018	.022	-.778**	.310
Cohabitation (married or living with partner)	.029	.105	.030	.022	.526*	.299
Education	.018	.046	.002	.009	-.190	.121
Age	.128***	.042	.001	.009	-.173	.124
Number of children	-.049	.043	-.000	.009	-.054	.119
Household income (p.a.)	-.030	.033	.001	.007	-.092	.095
Tenure with counselor	-.000	.061	-.011	.013	.446**	.175
Number of interactions with counselor/month	.137***	.053	-.000	.011	.020	.151
Objective fin. well-being (credit score) _t			.877***	.038		
Objective financial well-being (Δ credit score)					-.166***	.055
Subjective fin. well-being (financial stress) _t					.688***	.077
Constant	.633	1.424	.679***	.251	4.229***	1.196
R ²	.50		.85		.52	
AIC	456.52					
BIC	571.81					
N	115					

Note. AIC = Akaike information criterion; BIC = Bayesian information criterion; Coef. = coefficient; fin. lit. = financial literacy; p.a. = per annum; SE = standard error.

*** $p < .01$. ** $p < .05$. * $p < .10$.

the covariates. The level of coproduction is higher for older respondents ($\beta = .128, p < .01$) and for respondents with more frequent monthly interactions with their counselors ($\beta = .137, p < .01$).

Drivers of objective and subjective financial well-being. Supporting Hypothesis 7, there is a significant, positive relationship between coproduction and objective financial well-being ($\beta = .032, p < .05$). Notably, this effect emerges controlling for the credit score in March 2012. Hypothesis 8 proposed that objective financial well-being would mediate the effect of coproduction on subjective financial well-being (i.e., financial stress). We tested for this mediation using a bootstrapping approach (5,000 resamples; Preacher and Hayes 2008; Zhao, Lynch and Chen 2010) with financial stress as our dependent variable, coproduction as the independent variable, and change in credit score as the mediator, including all covariates. The mean indirect effect was negative and the 95% confidence interval (CI) did not include zero for the proposed mediation path ($a \times b = -.144$, 95% confidence interval = $[-.361, -.020]$). These results suggest that the change in credit score

mediates the effect of customer coproduction on financial stress. Finally, we note three interesting effects of the covariates. Financial stress is more likely to decrease for men ($\beta = -.778, p < .05$); in parallel, it is marginally more likely to increase for people living with a partner ($\beta = .526, p < .10$), and those with longer lasting relationships with their counselor ($\beta = .446, p < .05$).⁶

General Discussion

Financial counseling, a service designed to improve consumer financial well-being, lies at the heart of TSR (Anderson et al. 2013). Although this transformative service requires high levels of customer participation to be effective, coproduction in financial counseling has received little attention from service scholars (for an exception, see Guo et al. 2013). Our work not only aligns with recent public policy initiatives (e.g., Consumer Financial Protection Bureau) but also responds to recent calls for TSR (Anderson et al. 2013; Ostrom et al. 2010) by focusing on outcomes that reflect consumers' objective well-being (e.g., improved credit score) and subjective well-being (e.g.,

decreased financial stress). We build on SDT, which stresses that an individual's needs related to competence, autonomy, and relatedness influence behavioral change and well-being. Our results show that all three elements of SDT drive coproduction in financial counseling, as we find significant effects of financial literacy (= $SDT_{\text{competence}}$), involvement (= SDT_{autonomy}), and attachment styles (= $SDT_{\text{relatedness}}$). In turn, coproduction improves objective and subjective financial well-being. These findings suggest that coproduction is pivotal for the effectiveness of financial counseling, and they shed new light on the causal chain of effects in this transformative setting.

Coproduction Improves Consumer Well-Being

A growing body of literature has examined the link between consumers' financial literacy and their financial well-being (Braunstein and Welch 2002; Lusardi and Mitchell 2013). Because coproduction has received little attention in this literature, we provide novel insights into this research stream. Customer coproduction directly improves objective financial well-being (i.e., increases credit scores) and affects subjective financial well-being (i.e., reduces financial stress). Although TSR is a nascent field, its core constructs of interest (e.g., coproduction) provide useful theoretical advancements to the broader discussion of consumer well-being (a discussion that, to date, largely exists outside service research). Therefore, the concept of coproduction should be incorporated into future transformative consumer and service research. This notion is particularly timely because the financial service industry provides increasingly complex offerings that gradually put more responsibility on consumers (Lusardi and Mitchell 2013).

Financial Literacy Facilitates Coproduction

Although financial literacy is vital on both a microeconomic and a macroeconomic level (Lusardi and Mitchell 2013), we are not aware of any longitudinal studies on objective and subjective financial literacy as drivers of coproduction. Both dimensions predict coproduction, but objective financial literacy has a larger impact (as indicated by regression coefficients). The interaction effect between objective and subjective financial literacy on coproduction was not significant. That is, the level of subjective financial literacy did not influence the impact of objective financial literacy on coproduction (and vice versa). In summary, both objective and subjective financial literacy are important, but separate, determinants of coproduction in financial counseling. As such, our results advise against only studying one of these variables or collapsing them into one literacy construct (Hung, Parker, and Yoong 2009; Remund 2010).⁷

Attachment Avoidance Undermines Coproduction

As a personalized service, financial counseling provides a natural context for clients to bond with their counselor. In such

settings, the customer-employee relationship often becomes a platform of coproduction (Gremler and Gwinner 2000). We find partial support for the prediction that customers' attachment security influences coproduction. As hypothesized, attachment *avoidance* is a barrier to coproduction, consistent with findings on the negative effects of attachment avoidance on the assessment of service providers (Mende and Bolton 2011). However, attachment *anxiety* had no significant impact on coproduction. Although this finding is reassuring from a pragmatic service management perspective, it deserves further reflection through a theoretical lens. Hypothesis 5 drew on studies that find high levels of attachment *insecurity* (i.e., high levels of attachment anxiety or high levels of avoidance) to undermine interpersonal collaboration. However, our results suggest that a more fine-grained perspective that investigates the *distinct* influence of attachment anxiety versus attachment avoidance (rather than merely distinguishing between attachment *security* and *insecurity*) is necessary. These two dimensions *can* have similar outcomes, but they are not identical and might even have opposing effects on some variables (e.g., consumer's desire for closeness in service relationships; Mende, Bolton, and Bitner 2013). This idea is consistent with research that has shown how attachment avoidance (but not anxiety) undermines joint problem solving in romantic relationships (Teeruthroy and Bhowon 2012) and how attachment avoidance (but not anxiety) lowers a person's willingness to cooperate with others (De Dreu 2012). Finally, Ciechanowski et al. (2001) found that among patients with diabetes, those with an avoidant attachment style showed lower levels of compliance behavior (i.e., self-managing their illness) than patients with anxious or secure attachment styles. In summary, similar to other studies, we find that attachment avoidance is detrimental for coproduction, but anxiety might not be. More research is necessary to better understand the distinct impact of attachment avoidance versus anxiety on coproduction.

Consumer Involvement Facilitates Coproduction

Our analyses reveal multiple positive effects of involvement. We predicted (Hypothesis 4) that financial literacy and involvement would reinforce each other (i.e., positive interaction). Instead, we find a negative interaction, which suggests a compensation mechanism, such that the positive effect of objective financial literacy and subjective financial literacy on coproduction becomes *weaker* (rather than stronger) with higher levels of involvement. Plotting these interaction effects in Figure 2 (Panels a and b), we show that high involvement virtually eliminates the differences in coproduction between consumers who are low and high in financial literacy.⁸

Interestingly, SRT helps explain these results. This theory predicts that people can take action to change their self, which includes overriding initial impulses and preexisting or competing patterns of thought, emotion, and behavior (Baumeister and Heatherton 1996). Regarding the focal interaction effect, clients with low levels of financial literacy may have an initial

Figure 2. The interplay of financial literacy, involvement, and attachment avoidance on coproduction.

impulse that would undermine their coproduction, but successful self-regulation *overrides* this impulse through involvement, which motivates additional consumer effort (Celsi and Olson 1988). This self-regulation eliminates the gap in coproduction between consumers who are low and high in financial literacy (Figure 2). Although failing to support our hypothesis (Hypothesis 4), this result is highly relevant because “most U.S. respondents are not financially literate” (Lusardi and Mitchell 2013, p. 12). Financial illiteracy might even be more accentuated among financial counseling clients. Against this background, the idea that involvement helps compensate for low financial literacy is encouraging because consumers’ involvement can likely be influenced more effectively and efficiently than their financial literacy (Willis 2008), as we illustrate subsequently. Another benefit of involvement is that it helps in overriding the negative impulse triggered by attachment avoidance, which facilitates coproduction (Hypothesis 6b). Figure 2 (Panel c) shows that with higher levels of involvement, the difference in coproduction between clients with high and low attachment avoidance becomes smaller. Taken together, these insights reinforce the notion that providers of transformative services can serve their clients better by increasing consumer involvement in the focal service.

Life Circumstances and Client-Counselor Relationship Matter in Financial Counseling

Because consumers’ financial well-being should be examined in light of their life circumstances (Remund 2010), we captured a broad set of covariates. We find that *age* facilitates coproduction and that *male* clients perceive significantly less financial stress than women. This latter finding is consistent with results from Ferguson-Dunn and Mirzaie (2013) who show that the effect of an encounter with a debt collection agency on financial stress is 50% greater for women (than men). *Cohabitation* matters, such that counseling clients who live with a partner tend to perceive higher levels of financial stress, potentially because their financial problems influence not only themselves but their partners as well or because of elevated levels of conflict between partners (Gudmunson et al. 2007). Regarding the client-counselor relationship, we find that the *frequency of interactions* facilitates coproduction. In parallel, involvement was not significantly correlated with this frequency variable or with relationship duration, suggesting that mere interactions and tenure are not automatically linked to involvement. Finally, subjective well-being decreases with *longer durations* of the counseling relationship. This statistical relationship might be curvilinear, such that consumers may lose their

confidence or grow impatient after a certain tenure threshold; another explanation is that going through credit counseling simply exhausts clients over time. All these mechanisms could explain the increase in perceived financial stress and deserve further attention from TSR.

Implications for Transformative Services Providers and Public Policy Makers

Our substantively oriented research aims to offer implications to service providers and public policy makers. A first step in deriving such implications is to assess whether our framework generalizes beyond financial counseling.⁹ Our work is grounded in SDT, a macro theory of human motivation that identifies “the conditions that facilitate versus undermine well-being” (Ryan and Deci 2001, p. 147) and has proved valid in many well-being settings (e.g., education, exercise, and smoking cessation; Deci and Ryan 2012). Therefore, the ideas of SDT seem to hold across TSR settings. Guided by SDT, we investigate three drivers of coproduction, namely, financial literacy, involvement, and attachment styles. First, *financial literacy* applies to the domain of personal finance, but it is unlikely to influence coproduction in general. Consequently, TSR should examine *domain-specific service literacy* to capture SDT’s competence. For example, coproduction may also be influenced by patients’ medical literacy in health care settings or clients’ nutritional literacy in weight-loss programs. Second, SDT has established autonomy as a generic ingredient for psychological well-being (Ryan and Deci 2001). Consistent with this rationale, the importance of consumer *involvement* for coproduction, as our operationalization of autonomy, seems to generalize across well-being contexts (e.g., in marriage counseling, the client’s understanding that the therapy is important helps the therapeutic process; Johnson and Best 2013). Third, with regard to SDT’s relatedness (here, *attachment styles*), many services emphasize interpersonal bonds as a platform for coproduction (e.g., personal trainers, therapists, dietitians, medical staff, and self-help groups). Because attachment theory accounts for relational engagement in a variety of contexts (Mikulincer and Shaver 2007), attachment effects likely influence consumers in numerous well-being services. In conclusion, because our framework can be contextually modified, it seems insightful for a broad variety of transformative services.

Implications for Transformative Service Providers

Our research offers implications for transformative service providers with regard to (1) measuring customer profiles, (2) segmenting the customer portfolio and designing service delivery for specific segments, and (3) training and empowering employees. First, service providers who survey clients on their service literacy, involvement, and attachment style will be able to better understand and predict the collaborative relationship with their clients. Second, segmenting clients on the basis of these constructs allows for customized service provision, which is a more promising pathway to coproduction and

consumer well-being. For example, clients could participate in *segment-specific* workshops that address their specific motivational needs and/or profiles (e.g., interventions that boost involvement or reduce attachment avoidance¹⁰). Segment-specific approaches are effective in many nontransformative services (e.g., financial investment workshops; Neukam and Hershey 2003), and they seem equally promising if employed in the interest of consumer well-being. In parallel, our results show that segmentation criteria should also include some of our covariates (age, gender, or cohabitation). For example, counselors should be cognizant of our finding that the segment of female clients who live with a partner is likely to perceive considerably higher levels of financial stress than the segment of male clients who live alone. Such systematic, segment-oriented efforts can benefit both consumers and providers because they may also help reduce the number of clients who drop out of well-being programs (recall that 47% of clients drop out of credit counseling; Kim, Garman, and Sorhaindo 2003). Third, employees who provide transformative services should be trained to understand the fundamental effects of coproduction on well-being as well as the antecedents of coproduction. Furthermore, employees need to be empowered (or even incentivized) to treat client segments with different profiles in a tailored manner.

Implications for Public Policy

From a public policy perspective, our findings support the idea of improving consumers’ objective financial literacy and subjective financial literacy because both constructs drive coproduction. Continuing the efforts on public financial education (e.g., educational offers in schools or community centers) is necessary (Lusardi and Mitchell 2007a, 2008), but there are two core problems in the area of financial education. First, improving financial literacy can be a difficult, complex, and slow process (Willis 2008). Second, particularly young people often lack the motivation to become more financially literate. Accordingly, Mandell and Klein (2007) identify the need for education that puts *more emphasis on why* financial literacy is important to people’s life and future. Our results, revealing the multilayer impact of consumer involvement, echo this conclusion. Public policy makers should therefore engage in efforts designed to increase involvement. To do so, they can leverage traditional marketing tools. One example of such a policy effort is the “Questions Are the Answer” campaign, launched by the U.S. Agency for Healthcare Research and Quality to motivate patients to become more engaged when meeting with their doctors (e.g., by preparing questions before their appointment). This campaign integrated traditional advertising (e.g., television, radio, and print) with an interactive website. Similar campaigns, albeit on a potentially smaller scale or targeted at specific consumer segments, can be designed to increase consumer involvement in other well-being settings (including financial counseling). Such campaigns would go beyond current approaches of merely providing self-educational tools (e.g., nfcc.org) and would train clients on how

they can collaborate with service providers most effectively. In rolling out such campaigns, policy makers should collaborate with community-level entities (e.g., schools, employers, community centers, nonprofit organizations) to raise awareness of the positive impact well-being programs can have on consumers' (financial) well-being *if* clients are involved. In line with this idea, our work has an important, final implication for consumers of transformative services themselves. Consumers who act as coproducers benefit in terms of their own objective and subjective well-being, a conclusion that is most inspiring.

Limitations and Research Avenues in the Emerging Field of TSR

This research has limitations that point to avenues for further research. First, our data did not allow us to conduct separate analyses for for-profit and nonprofit counseling agencies. Given the increasing prominence of this distinction and ethical concerns about some agencies (Hunt 2005), we consider this (and related issues, such as certification of counseling agencies) an important avenue for further research. Second, we use credit scores as indicators of objective financial well-being. Although the fundamental importance of credit scores on consumers' lives is well recognized (Demyanyk 2010), TSR could include additional indicators of objective financial well-being (e.g., income-to-debt ratio and amount of debt). Third, although recent research provides some promising measures (e.g., Chan, Yim, and Lam 2010), the measurement of coproduction—relative to other areas (e.g., service quality)—is in its infancy, and efforts to establish generic scales related to customer coproduction and cocreation are only just emerging (e.g., Yi and Gong 2013). Drawing on prior research in financial settings (Auh et al. 2007), we used a comprehensive set of items to measure coproduction. However, it would be important to establish benchmark measures for coproduction. Such measures could, for example, distinguish between subjective and objective coproduction or capture customers' coproduction efforts before, during, and after service encounters, so that these facets could be accounted for in a statistical model.¹¹ Fourth, clients in financial counseling often work with their agency for more than 1 year. Our data capture an 8-month period, during which the average credit score of clients in our sample rose from 586 to 620. Although this increase indicates that our study period was meaningful, TSR would ideally examine consumer well-being over even longer periods. Fifth, as an emerging field, TSR benefits from drawing on multiple theories. We use SDT as our platform theory and link it with attachment theory and SRT, all of which provide crucial insights into coproduction in transformative service settings. However, other theories seem fruitful as well. For example, the Theory of Planned Behavior (TPB) is a prominent framework for studying financial behavior (Ajzen 1991; Xiao 2008). Our findings on the role of involvement overlap conceptually with TPB's focus on the role of attitudes in driving consumer intentions and behavior. As such, TSR could investigate additional components of TPB—namely, subjective norms (e.g., social

influence from friends and family) and perceived control (e.g., the role of clients' learned helplessness)—in explaining coproduction. In parallel, it is important to go beyond an individual-level perspective and to investigate coproduction and consumer well-being using theories from community and environmental psychology that capture the meso- and macro levels (e.g., King et al. 2002). Data from collective consumer entities (e.g., households, social networks of friends) are insightful to better understand how family ties or neighborhood dynamics relate to objective financial well-being and subjective financial well-being or how individual well-being relates to group-level well-being (e.g., family well-being; Anderson et al. 2013).

Acknowledgments

The authors are grateful to the editors and the three anonymous reviewers for the constructive and supportive feedback. Moreover, they thank Maura Scott for helpful comments on an earlier version of this article.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Notes

1. For the purpose of this study, we use the terms "consumer," "customer," and "client" interchangeably.
2. Indeed, Mittal (1995, p. 664) notes in reviewing the literature on consumer involvement: "Although researchers have invoked somewhat divergent images of the construct...one theme remains constant, namely, that involvement is the perceived importance of the stimulus—be that stimulus the product itself or the purchase decision task."
3. To explore this logic, our model allows a direct effect of coproduction on subjective financial well-being.
4. The decision for this 8-month study period was guided by the Transtheoretical Model of Change, a prominent model on how people modify problem behavior or acquire positive behavior (Prochaska, DiClemente, and Norcross 1992). Research on this model typically quantifies stages of change as periods of 6 months; for example, studies suggest that the first 6 months in a change-oriented program is the stage in which people make overt modifications to their focal behavior and lifestyles (Prochaska et al. 1994; Xiao et al. 2004). Therefore, our goal was to wait at least 6 months before launching Wave 2 of our survey.
5. Because the distribution of the credit scores is skewed, consistent with related work modeling financial consumer metrics (e.g., Du, Kamakura, and Mela 2007), we log-transformed the credit scores as $\ln(\text{score} + 1)$. We log-transformed the change in credit score as $\ln(\text{change score} + 1)$ for positive and $\ln(1/\text{change score})$ for negative change.

6. Because financial well-being in December 2012 is partly a function of financial well-being in March 2012, we include lagged dependent variables in the well-being equations (Beck and Katz 2011; Shumway and Stoffer 2006).
7. Extending the reflection on the association between objective financial literacy and subjective financial literacy, we considered the idea of consumer knowledge calibration—that is, the gap between objective and subjective knowledge (Carlson et al. 2009). We created a gap score between objective financial literacy and subjective financial literacy and reran our system of equations. Examining the effect of the gap variable, we found that the corresponding coefficient was not significant.
8. Figure 2 varies the levels of involvement and financial literacy (*high* = 1 *SD* above the mean, *low* = 1 *SD* below the mean), leaving the other variables at their mean.
9. We thank one of the anonymous reviewers for encouraging us to reflect upon this aspect.
10. To increase their clients' involvement, transformative service providers can leverage insights into how to boost employee involvement in organizations (Vandenberg, Richardson, and Eastman 1999). Effective approaches for creating a climate of high involvement include (1) linking incentives to involvement-indicating client behavior (e.g., counseling agencies offering fee discounts as incentives to reinforce desirable behavior), (2) designing coproduction-related tasks that provide (some) control to clients (e.g., providing clients with guided choices on how to implement a debt management plan), and (3) providing clients with clear direction (e.g., counselors defining the coproducer role with clients and emphasizing that counseling outcomes can vary depending on their own actions). Similarly, service providers could build on attachment research that has identified various approaches to reduce attachment avoidance and anxiety (Mikulincer and Shaver 2007); for brevity's sake, we do not address this aspect.
11. We are grateful to one of the anonymous reviewers for pointing to this important avenue for further research.

References

- Ajzen, Icek (1991), "The Theory of Planned Behavior," *Organizational Behavior and Human Decision Processes*, 50 (2), 179-211.
- Alba, Joseph W. and J. Wesley Hutchinson (2000), "Knowledge Calibration: What Consumers Know and What They Think They Know," *Journal of Consumer Research*, 27 (2), 123-156.
- Anderson, Laurel, Amy L. Ostrom, and Mary Jo Bitner (2011), "Surrounded by Services: A New Lens for Examining the Influence of Services as Social Structures on Well-Being," working paper, W. P. Carey School of Business, Arizona State University, Phoenix, AZ.
- Anderson, Laurel, Amy L. Ostrom, Canan Corus, Raymond P. Fisk, Andrew S. Gallan, Mario Giraldo, Martin Mende, Mark Mulder, Steven W. Rayburn, Mark S. Rosenbaum, Kunio Shirahada, and Jerome D. Williams (2013), "Transformative Service Research: An Agenda for the Future," *Journal of Business Research*, 66 (8), 1203-1210.
- Argyle, Michael (2001), *The Psychology of Happiness*, 2d ed. New York: Routledge.
- Auh, Seigyoung, Simon J. Bell, Colin S. McLeod, and Eric Shih (2007), "Co-Production and Customer Loyalty in Financial Services," *Journal of Retailing*, 83 (3), 359-370.
- Bagwell, Dorothy C. and Jinhee Kim (2003), "Financial Stress, Health Status, and Absenteeism in Credit Counseling Clients," *Journal of Consumer Education*, 21, 50-58.
- Bandura, Albert (1982), "Self-Efficacy Mechanism in Human Agency," *American Psychologist*, 37 (2), 122-147.
- Barakova, Irina, Raphael W. Bostic, Paul S. Calem, and Susan M. Wachter (2003), "Does Credit Quality Matter for Homeownership?" *Journal of Housing Economics*, 12 (4), 318-336.
- Baumeister, Roy F., Matthew Gailliot, C. Nathan DeWall, and Megan Oaten (2006), "Self-Regulation and Personality: How Interventions Increase Regulatory Success, and How Depletion Moderates the Effects of Traits on Behavior," *Journal of Personality*, 74 (6), 1773-1801.
- Baumeister, Roy F. and Todd F. Heatherton (1996), "Self-Regulation Failure: An Overview," *Psychological Inquiry*, 7 (1), 1-15.
- Beck, Nathaniel and Jonathan N. Katz (2011), "Modeling Dynamics in Time-Series-Cross-Section Political Economy Data," *Annual Review of Political Science*, 14, 331-352.
- Bendapudi, Neeli and Leonard L. Berry (1997), "Customers' Motivations for Maintaining Relationships with Service Providers," *Journal of Retailing*, 73 (1), 15-37.
- Bendapudi, Neeli and Robert P. Leone (2003), "Psychological Implications of Customer Participation in Co-production," *Journal of Marketing*, 67 (January), 14-28.
- Bloch, Peter H. and Marsha L. Richins (1983), "A Theoretical Model for the Study of Product Importance Perceptions," *Journal of Marketing*, 47 (3), 69-81.
- Boatwright, Karyn J., Frederick G. Lopez, Eric M. Sauer, Abbie VanDerWege, and Daniel M. Huber (2010), "The Influence of Adult Attachment Styles on Workers' Preferences for Relational Leadership Behaviors," *The Psychologist-Manager Journal*, 13 (1), 1-14.
- Bolton, Lisa E., Paul N. Bloom, and Joel B. Cohen (2011), "Using Loan Plus Lender Literacy Information to Combat One-Sided Marketing of Debt Consolidation Loans," *Journal of Marketing Research*, 48 (Special Issue), S51-S59.
- Braunstein, Sandra and Carolyn Welch (2002), "Financial literacy: An Overview of Practice, Research and Policy," *Federal Reserve Bulletin*, 88 (11), 445-457.
- Brennan, Kelly A., Catherine L. Clark, and Phillip R. Shaver (1998), "Self-Report Measurement of Adult Romantic Attachment," in *Attachment Theory and Close Relationships*, Jeffrey A. Simpson and W. Steven Rholes, eds. New York: Guilford Press, 46-76.
- Brockett, Patrick L. and Linda L. Golden (2007), "Biological and Psychobehavioral Correlates of Credit Scores and Automobile Insurance Losses: Toward an Explication of Why Credit Scoring Works," *Journal of Risk and Insurance*, 74 (1), 23-63.
- Cannon, Joseph P. and William D. Perreault Jr. (1999), "Buyer-Seller Relationships in Business Markets," *Journal of Marketing Research*, 36 (4), 439-460.
- Carlson, Jay P., Leslie H. Vincent, David M. Hardesty, and William O. Bearden (2009), "Objective and Subjective Knowledge Relationships: A Quantitative Analysis of Consumer Research Findings," *Journal of Consumer Research*, 35 (5), 864-876.

- Cassidy, Jude A. (1999), "The Nature of the Child's Ties," in *The Handbook of Attachment Theory and Research*, J. Cassidy and P. R. Shaver, eds. New York: Guilford Press, 3-20.
- Celsi, Richard L. and Jerry C. Olson (1988), "The Role of Involvement in Attention and Comprehension Processes," *Journal of Consumer Research*, 15 (2), 210-224.
- Chan, Kimmy W., Chi Kin (Bennett) Yim, and Simon S. K. Lam (2010), "Is Customer Participation in Value Creation a Double-Edged Sword? Evidence from Professional Financial Services Across Cultures," *Journal of Marketing*, 74 (May), 48-64.
- Ciechanowski, Paul S., Wayne J. Katon, Joan E. Russo, and Edward A. Walker (2001), "The Patient-Provider Relationship: Attachment Theory and Adherence to Treatment in Diabetes," *The American Journal of Psychiatry*, 158 (1), 29-35.
- Cunningham, Gail (2012), "NFCC Poll Indicates Americans Eager to Improve Credit Score," (accessed September 30, 2013), [available at financialeducation.nfcc.org/2012/04/16/nfcc-poll-indicates-americanseager-to-improve-credit-score/].
- De Dreu, Carsten K. W. (2012), "Oxytocin Modulates the Link Between Adult Attachment and Cooperation Through Reduced Betrayal Aversion," *Psychoneuroendocrinology*, 37 (7), 871-880.
- Deci, Edward L. and Richard M. Ryan (2012), "Self-Determination Theory," in *Handbook of Theories of Social Psychology*, Vol. 1, P. A. M. Van Lange, A. W. Kruglanski, and E. T. Higgins, eds. Thousand Oaks, CA: Sage, 416-437.
- Demyanyk, Yuliya (2010), "Your Credit Score Is a Ranking, Not a Score," *Economic Commentary*, Federal Reserve Bank of Cleveland, (accessed September 8, 2013), [available at <http://www.clevelandfed.org/research/commentary/2010/2010-16.cfm>].
- Diener, Ed, Eunkook M. Suh, Richard E. Lucas, and Heidi L. Smith (1999), "Subjective Well-Being: Three Decades of Progress," *Psychological Bulletin*, 125 (2), 276-303.
- Du, Rex, Wagner A. Kamakura, and Carl Mela (2007), "Size and Share of Customer Wallet," *Journal of Marketing*, 71 (2) 94-113.
- Etgar, Michael (2008), "A Descriptive Model of the Consumer Co-production Process," *Journal of the Academy of Marketing Science*, 36 (1), 97-108.
- Federal Reserve Bank of New York (2013), "Quarterly Report on Household Debt and Credit," (accessed October 20, 2013), [available at <http://www.newyorkfed.org/householdcredit/2013-Q2/index.html>].
- Fellowes, Matt (2006), *Credit Scores, Reports, and Getting Ahead in America*. Washington, DC: The Brookings Institution.
- Ferguson-Dunn, Lucia and Ida A. Mirzaie (2012), "Determinants of Consumer Debt Stress: Differences by Debt Type and Gender," working paper, Ohio State University, Columbus, OH.
- Ferguson-Dunn, Lucia and Ida A. (2013), "Consumer Debt Stress, Changes in Household Debt, and the Great Recession," working paper, Ohio State University, Columbus, OH.
- Gist, Marilyn E. (1987), "Self-Efficacy: Implications for Organizational Behavior and Human Resource Management," *Academy of Management Review*, 12 (3), 472-485.
- Greene, William H. (2011), *Econometric Analysis*, 7th ed. Upper Saddle River, NJ: Prentice Hall.
- Gremler, Dwayne D. and Kevin P. Gwinner (2000), "Customer-Employee Rapport in Service Relationships," *Journal of Service Research*, 3 (August), 82-104.
- Gudmunson, Clinton, Ivan F. Beutler, Craig L. Israelsen, J. Kelly McCoy, and E. Jeffrey Hill (2007), "Linking Financial Strain to Marital Instability: Examining the Roles of Emotional Distress and Marital Interaction," *Journal of Family and Economic Issues*, 28 (3), 357-376.
- Guo, Lin, Eric J. Arnould, Thomas W. Gruen, and Chuanyi Tang (2013), "Socializing to Co-Produce: Pathways to Consumers' Financial Well-Being," *Journal of Service Research*, 16 (4), 549-563.
- Hastings, Justine S., Brigitte C. Madrian, and William L. Skimmyhorn (2012), "Financial Literacy, Financial Education, and Economic Outcomes," NBER Working Paper 18412, (accessed March 16, 2013), [available at <http://www.nber.org/papers/w18412>].
- Hung, Angela, Andrew Parker, and Joanne Yoong (2009), "Defining and Measuring Financial Literacy," RAND Working Paper WR-708, RAND Corporation, Santa Monica, CA.
- Hunt, Robert M. (2005), "Whither Credit Counseling?" Federal Reserve Bank of Philadelphia, (accessed April 21, 2013), [available at <http://ssrn.com/abstract=905263>].
- Huston, Sandra J. (2010), "Measuring Financial Literacy," *Journal of Consumer Affairs*, 44 (2), 296-316.
- Hutman, Heidi, Karolina Anna Konieczna, Emily Kerner, Calli Renee Armstrong, and Marilyn Fitzpatrick (2012), "Indicators of Relatedness in Adolescent Male Groups: Toward a Qualitative Description," *The Qualitative Report*, 17, 1-23.
- Johnson, Susan M. and Marlene Best (2013), "A Systemic Approach to Restructuring Adult Attachment," in *Attachment and Family Systems: Conceptual, Empirical and Therapeutic Relatedness*, P. Erdman and T. Caffery, eds. New York: Routledge, 165-192.
- Kellogg, Deborah L., William E. Youngdahl, and David E. Bowen (1997), "On the Relationship between Customer Participation and Satisfaction: Two Frameworks," *International Journal of Service Industry Management*, 8 (3), 206-219.
- Kim, Jinhee, E. Thomas Garman, and Benoit Sorhaindo (2003), "Relationships among Credit Counseling Clients' Financial Well-being, Financial Behaviors, Financial Stressor Events, and Health," *Financial Counseling and Planning*, 14 (2), 75-87.
- King, Abby C., Dan Stokols, Emily Talen, Glenn S. Brassington, and Richard Killingsworth (2002), "Theoretical Approaches to the Promotion of Physical Activity Forging a Transdisciplinary Paradigm," *American Journal of Preventive Medicine*, 23 (2), 15-25.
- La Guardia, Jennifer G., Richard M. Ryan, Charles E. Couchman, and Edward L. Deci (2000), "Within-Person Variation in Security of Attachment: A Self-Determination Theory Perspective on Attachment, Need Fulfillment, and Well-Being," *Journal of Personality and Social Psychology*, 79 (3), 367-384.
- Locke, Edwin A. and Gary P. Latham (2002), "Building a Practically Useful Theory of Goal Setting and Task Motivation: A 35-Year Odyssey," *American Psychologist*, 57 (9), 705-717.
- Lopez, Frederick G., Mark R. Gover, Jennie Leskela, Eric M. Sauer, Lisa Schirmer, and James Wyssmann (1997), "Attachment Styles, Shame, Guilt, and Collaborative Problem-Solving Orientations," *Personal Relationships*, 4 (1), 187-199.
- Lusardi, Annamaria and Olivia S. Mitchell (2007a), "Baby Boomer Retirement Security: The Roles of Planning, Financial Literacy, and Housing Wealth," *Journal of Monetary Economics*, 54 (1), 205-224.

- Lusardi, Annamaria and Olivia S. Mitchell (2007b), "Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education Programs," *Business Economics*, 42, 1, 35-44.
- Lusardi, Annamaria and Olivia S. Mitchell (2008), "Planning and Financial Literacy: How Do Women Fare?" NBER Working Paper No. W-13750, (accessed March 16, 2013), [available at <http://www.nber.org/papers/w13750>].
- Lusardi, Annamaria and Olivia S. Mitchell (2013), "The Economic Importance of Financial Literacy: Theory and Evidence," NBER Working Paper No. 18952, (accessed October 17, 2013), [available at <http://www.nber.org/papers/w18952>].
- Lusch, Robert F. and Stephen L. Vargo (2006), "Service-Dominant Logic: Reactions, Reflections and Refinements," *Marketing Theory* 6 (3), 281-288.
- Mandell, Lewis and Linda S. Klein (2007), "Motivation and Financial Literacy," *Financial Services Review*, 16 (2), 106-116.
- Marmot, Michael, Carol D. Ryff, Larry L. Bumpass, Martin Shipley, and Nadine F. Marks (1997), "Social Inequalities in Health: Next Questions and Converging Evidence," *Social Science and Medicine*, 44 (6), 901-910.
- Mende, Martin and Ruth N. Bolton (2011), "Why Attachment Security Matters How Customers' Attachment Styles Influence Their Relationships With Service Firms and Service Employees," *Journal of Service Research*, 14 (3), 285-301.
- Mende, Martin, Ruth N. Bolton, and Mary Jo Bitner (2013), "Decoding Customer-Firm Relationships: How Attachment Styles Help Explain Customers' Preferences for Closeness, Repurchase Intentions, and Changes in Relationship Breadth," *Journal of Marketing Research*, 50 (1), 125-142.
- Meuter, Matthew L. and Mary Jo Bitner (1998), "Self-Service Technologies: Extending Service Frameworks and Identifying Issues for Research," in *Marketing Theory and Applications*, Vol. 9, D. Grewal and C. Pechmann, eds. Chicago, IL: American Marketing Association, 12-19.
- Meuter, Matthew L., Mary Jo Bitner, Amy L. Ostrom, and Stephen Brown (2005), "Choosing among Alternative Service Delivery Modes: An Investigation of Customer Trial of Self-Service Technologies," *Journal of Marketing*, 69 (April), 61-83.
- Mikulincer, Mario and Phillip R. Shaver (2007), *Attachment in Adulthood: Structure, Dynamics, and Change*. New York: The Guilford Press.
- Mills, Peter K. and James H. Morris (1986), "Clients as 'Partial' Employees of Service Organizations: Role Development in Client Participation," *Academy of Management Review*, 11 (4), 726-735.
- Mitchell, Andrew A. and Peter A. Dacin (1996), "The Assessment of Alternative Measures of Consumer Expertise," *Journal of Consumer Research*, 23 (3), 219-239.
- Mittal, Banwari (1995), "A Comparative Analysis of Four Scales of Consumer Involvement," *Psychology and Marketing*, 12 (7), 663-682.
- Muraven, Mark and Roy F. Baumeister (2000), "Self-Regulation and Depletion of Limited Resources: Does Self-Control Resemble a Muscle?" *Psychological Bulletin*, 126 (2), 247-259.
- Neukam, Kirstan A. and Douglas A. Hershey (2003), "Financial Inhibition, Financial Activation, and Saving for Retirement," *Financial Services Review*, 12 (1), 19-38.
- O'Neill, Barbara, Aimee D. Prawitz, Benoit Sorhaindo, Jinhee Kim, and Thomas E. Garman (2006), "Changes in Health, Negative Financial Events, and Financial Distress/Financial Well-Being for Debt Management Program Clients," *Financial Counseling and Planning*, 17 (2), 46-63.
- Ostrom, Amy L., Mary Jo Bitner, Stephen W. Brown, Kevin A. Burkhard, Michael Goul, Vicki Smith-Daniels, Haluk Demirkan, and Elliot Rabinovich (2010), "Moving Forward and Making a Difference: Research Priorities for the Science of Service," *Journal of Service Research*, 13 (1), 4-36.
- Park, Chan-Wook and Byeong-Joon Moon (2003), "The Relationship between Product Involvement and Product Knowledge: Moderating Roles of Product Type and Product Knowledge Type," *Psychology & Marketing*, 20 (11), 977-997.
- Prawitz, Aimee D., E. Thomas Garman, Benoit Sorhaindo, Barbara O'Neill, Jinhee Kim, and Patricia Drentea (2006a), "InCharge Financial Distress/Financial Well-being Scale: Development, Administration, and Score Interpretation," *Financial Counseling and Planning*, 17 (1), 34-50.
- Prawitz, Aimee D., E. Thomas Garman, Benoit Sorhaindo, Barbara O'Neill, Jinhee Kim, and Patricia Drentea (2006b), "The Incharge Financial Distress/Financial Well-Being Scale: Establishing Validity and Reliability," in *Proceedings of the 2006 Association for Financial Counseling and Planning Education*, Ann Berry, Dena Wise, Jane Gault, and Christopher Sneed, eds. Alexandria, VA: AFCPE, 77-89.
- Preacher, Kristopher J. and Andrew F. Hayes (2008), "Asymptotic and Resampling Strategies for Assessing and Comparing Indirect Effects in Multiple Mediator Models," *Behavior Research Methods*, 40 (3), 879-891.
- Prochaska, James O., Carlo C. DiClemente, and John C. Norcross (1992), "In Search of How People Change: Applications to Addictive Behaviors," *American Psychologist*, 47 (9), 1102-1114.
- Prochaska, James O., Wayne F. Velicer, Joseph S. Rossi, Michael G. Goldstein, Bess H. Marcus, William Rakowski, Christine Fiore, Lisa L. Harlow, Colleen A. Redding, Dena Rosenbloom, and Susan R. Rossi (1994), "Stages of Change and Decisional Balance for 12 Problem Behaviors," *Health Psychology*, 13 (1), 39-46.
- Remund, David L. (2010), "Financial Literacy Explicated: The Case for a Clearer Definition in an Increasingly Complex Economy," *Journal of Consumer Affairs*, 44 (2), 276-295.
- Ryan, Richard M. and Edward L. Deci (2000), "Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-being," *American Psychologist*, 55 (1), 68-78.
- Ryan, Richard M. and Edward L. Deci (2001), "On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Well-Being," *Annual Review of Psychology*, 52 (1), 141-166.
- Ryan, Richard M., Heather Patrick, Edward L. Deci, and Geoffrey C. Williams (2008), "Facilitating Health Behaviour Change and Its Maintenance: Interventions Based on Self-Determination Theory," *The European Health Psychologist*, 10 (March), 2-5.
- Schuchardt, Jane, Sherman D. Hanna, Tahira K. Hira, Angela C. Lyons, Lance Palmer, and Jing Jian Xiao (2009), "Financial Literacy and Education Research Priorities," *Journal of Financial Counseling and Planning*, 20 (1), 84-95.

- Schwenk, Andrew T. (2011), "Debt Settlement: A Beast of Burden without Any Reins," *Brooklyn Law Review*, 76 (3), 1165-1200.
- Shumway, Robert H. and David S. Stoffer (2006), *Time Series Analysis and Its Applications*. New York: Springer.
- Sroufe, Alan L. and Everett Waters (1977), "Attachment as an Organizational Construct," *Child Development*, 48 (4), 1184-1199.
- Stajkovic, Alexander D. and Fred Luthans (1998), "Self-Efficacy and Work-Related Performance: A Meta-analysis," *Psychological Bulletin*, 124 (2), 240-261.
- Teeruthroy, Vednidhi T. and Uma Bhowon (2012), "Romantic Relationships among Young Adults: An Attachment Perspective," *International Journal of Humanities and Social Science*, 2 (10), 145-155.
- Vandenberg, Robert J., Hettie A. Richardson, and Lorrina J. Eastman (1999), "The Impact of High Involvement Work Processes upon Organizational Effectiveness," *Group & Organization Management*, 24 (3), 300-339.
- Vohs, Kathleen D., Roy F. Baumeister, and Natalie J. Ciarocco (2005), "Self-Regulation and Self-Presentation: Regulatory Resource Depletion Impairs Impression Management and Effortful Self-Presentation Depletes Regulatory Resources," *Journal of Personality and Social Psychology*, 88 (4), 632-657.
- Webley, Paul and Ellen K. Nyhus (2001), "Life-Cycle and Dispositional Routes into Problem Debt," *British Journal of Psychology*, 92 (3), 423-446.
- Willis, Lauren E. (2008), "Against Financial Literacy Education," *Iowa Law Review*, 94 (1), 197-285.
- Xiao, Jing J. (2008), *Handbook of Consumer Finance Research*. New York: Springer.
- Xiao, Jing J., Barbara M. Newman, Janice M. Prochaska, Berta Leon, Robert L. Bassett, and Janet L. Johnson (2004), "Applying the Transtheoretical Model of Change to Consumer Debt Behavior," *Financial Counseling and Planning*, 15 (2), 89-100.
- Yi, Youjae and Taeshik Gong (2013), "Customer Value Co-Creation Behavior: Scale Development and Validation," *Journal of Business Research*, 66 (9), 1279-1284.
- Zhao, Xinshu, John G. Lynch, Jr., and Qimei Chen (2010), "Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis," *Journal of Consumer Research*, 37 (2), 197-206.

Author Biographies

Martin Mende is an assistant professor of marketing at Florida State University. His research focuses on service science, relationship marketing, transformative service research, and marketing strategy. His research has appeared in the *Journal of Marketing Research*, *Journal of Service Research*, and *Journal of Business Research*.

Jenny van Doorn is an associate professor of marketing at the Faculty of Business and Economics at the University of Groningen, the Netherlands. The main focus of her research is on customer relationships, customer engagement and sustainability. Her work has appeared in *Journal of Marketing*, *Journal of Service Research*, *International Journal of Research in Marketing*, and *Harvard Business Review*.