‘Paper Or Plastic’: How We Pay Influences Post-Transaction Connection

Avni Shah, University of Toronto, Canada
Noah Eisenkraft, University of North Carolina- Chapel Hill, USA
Jim Bettman, Duke University, USA
Tanya Chartrand, Duke University, USA

Can paying for a good/service using one form of payment influence how connected you feel post-transaction? Employing a multi-method approach, we demonstrate that individuals who pay using more painful forms of payment (e.g., cash/check versus debit/credit card) increase their post-transaction connection to both products and organizations.

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Special Session Summaries

Advances in Pay-What-You-Want Pricing
Chair: Stephen A. Atlas, University of Rhode Island, USA

Paper #1: Shifting Mindset in Consumer Elective Pricing
Silvia Saccardo, University of California- San Diego, USA
Charis Li, University of Florida, USA
Anya Samek, University of Wisconsin- Madison, USA
Ayelet Gneezy, University of California- San Diego, USA

Paper #2: Because We’re Partners: How Social Values and Relationship Norms Influence Consumer Payments in Pay-What-You-Want Contexts
Shelle M. Santana, Harvard University, USA
Vicki Morwitz, New York University, USA

Paper #3: Paper or Plastic’: How We Pay Influences Post-Transaction Connection
Avni Shah, University of Toronto, Canada
Noah Eisenkraft, University of North Carolina- Chapel Hill, USA
Jim Bettman, Duke University, USA
Tanya Chartrand, Duke University, USA

Paper #4: Rebate-What-You-Want
Stephen Atlas, University of Rhode Island, USA

SESSION OVERVIEW
Elective pricing strategies, commonly known as pay-what-you-want pricing, offer an intriguing domain of consumer behavior where people often freely pay nonzero amounts for a product they could obtain for free (Gneezy et al. 2010). This special session aims to contribute to the literature by exploring new frameworks for understanding how and when consumers feel sufficient connection with a firm to voluntarily endow it with privately held resources. This area has received increasing interest by the behavioral community in recent years (e.g. Kim et al. 2009; 2014; Riener and Traxler 2012; Mak Zwick and Rao 2010). This session includes four papers advancing our understanding of how contextual cues, private values, and socially constructed norms influence elective payments and customer-firm relationships.

In the first paper, Saccardo, Li, Samek, and Gneezy explore how elective pricing language influences exchange/communal mindsets. These mindsets influence relative regard for self and others and willingness to contribute to elective payment opportunities, a prospect that is tested across three studies.

In the second paper, Santana and Morwitz present a model for how values and norms combine to determine voluntary payments. Norms shift how much consumers express their economic or their social motives when determining a purchase price. Additionally, the difference in voluntary contributions of pro-social and pro-selfs is wider under exchange than communal norms. Four studies and a field experiment test the specific predictions of this model.

In the third paper, Shah, Eisenkraft, Bettman, and Chartrand, explores how payment form influences consumers’ connection with the products they purchase. They find, across three studies (two involving elective payments) that painful methods of payment correspond with greater connection post-transaction connection. This work indicates that one bind facing elective pricing strategy is its relative lack of painfulness.

In the fourth paper, Atlas discusses a new approach that increases elective contributions by framing them as elective rebates. He finds that consumers are more reluctant to take an elective amount of money back from an organization than to give it money directly.

Together, these four interconnected papers provide new perspectives on elective payment arrangements. Each paper will advance the field’s understanding of how people respond to social norms. Another theme unifying this session is the utilization of field studies, as self-reports in this domain often diverge from incentive-compatible choices. These perspectives yield insight into consumer choice across a wide range of settings, and carry theoretical as well as practical implications for consumer research.

This session will be relevant to researchers throughout consumer behavior. In particular, it advances connections between past research on mental accounting, framing, social preferences, and charitable giving. These topics—and elective payments in particular—have attracted considerable attention in recent years and we anticipate that this session will stimulate future research. Data collection in all papers is complete and all participants have agreed to present should the session be accepted. The chair will facilitate audience discussion drawing further connections between these perspectives as well as between elective pricing and other areas of consumer research.

Shifting Mindset in Consumer Elective Pricing
EXTENDED ABSTRACT
Self-interest has been assumed to guide individuals’ behavior in the marketplace. Yet, there is evidence suggesting that individuals’ behavior can sometimes deviate from pure self-interest to accommodate the well-being of others (e.g. Kahneman et al., 1986; Andreoni and Miller, 2002).

Consumer elective pricing (CEP), in which consumers set their own prices for products and services, offers a unique opportunity to better understand the factors that determine the extent to which one’s behavior follows market norms. Indeed, oftentimes consumers pay despite being able to get a product for free (Kim et al., 2009; Gneezy, et al. 2010; 2012; Jung et al., 2014). Notably, however, behavior under CEP doesn’t always follow the same pattern. In particular, although sometimes guided by other-regarding concerns, there are occasions in which consumers’ behavior is more consistent with self-interest (Leon et al., 2012), suggesting that response to CEP is context-dependent (Slovic, 1995).

In this paper, we test how a shift in mindset, shaped by contextual factors, influences payments. Building on past research on marketplace relationship norms (Fiske, 1993; Heyman and Ariely, 2004; Clark and Mills, 1993; Aggarwal, 2004), we propose that subtle changes in the presentation of a CEP offer influence the extent to which an exchange/money-market mindset is made salient. As a result, we predicted consumers would be more likely to pursue maximization of material goals (i.e., paying less) than when cued with a more communal mindset. We test our proposition in three field experiments in which we change the wording of a CEP offer to invoke self versus other-regarding mindsets.
Experiment 1 (N=525) tests mindset shifts in a charitable fundraising domain. We operated a donut stand in a Midwestern university and manipulated mindset by varying whether a CEP offer was presented as a purchase or as a donation. In one condition we sold donuts using PWYW and informed participants that we would donate all proceeds to charity. In the other, we asked customers to donate whatever amount they want (DWYW) to the charity in exchange for a donut. We expected the donation condition to make self-interested considerations less salient, increasing payments.

Among all people who made a payment for a donut, those in the DWYW condition paid more ($M_{DWYW} = $2.05, $M_{PWYW} = $1.65, t(444)=3.02, p=.003). In addition, purchase rates—the proportion of by-passers who approached the stand—was higher in the DWYW condition ($D_{DWYW} = 9.7\%$, $PWYW = 7.9\%$; z=2.4, p=.016). Finally, some customers ($N=79$) made a payment but declined to take a donut. This occurred more frequently with DWYW ($77\%$ vs. $23\%$, p<.001, Fisher exact). These results suggest a shift in mindset led to less self-interested behavior when the transaction was framed as donation rather than as a (prosocial) purchase.

In Experiments 2a/2b we tested the proposed mindset shift and resulting behavior without coupling purchases with a charitable cause. To manipulate mindset, we used two variations of CEP: Pay-What-You-Want (PWYW) and Pay-What-You-Can (PWYC). While PWYW is more common, PWYC has been adopted by, e.g., some CEP restaurants, theaters and yoga studios. We expected individuals to follow a more self-interested mindset when asked to pay what they want, versus what they can. As a first step, we conducted a pretest in which we presented individuals ($N=120$) with a hypothetical scenario describing donuts offered under PWYW (PWYC), and measured the resulting mindset using two questions (adapted from Johnson and Grimm, 2010). Individuals presented with PWYC scored lower on the exchange/money-market measure ($MPWYC=5.01$, $MPWYC=5.53$, t(118)=2.25, p=.031); the two groups did not differ on the communal/social-market measures.

Experiment 2a ($N=207$) tests the effect of mindset on behavior. We operated a stand in a southwestern university campus and sold donuts under CEP. We invoked mindset via signage and verbal communication, presenting customers with either a Pay-What-You-Want or a Pay-What-You-Can offer. Our results revealed that people paid more under PWYC ($Exp2a: M_{PWYC} = $.82, $M_{PWYW} = $.64, t(205), p=.002); purchase rates were not measured.

Experiment 2b replicates this finding using a similar procedure ($N=219$, $M_{PWYC} = $.80, $M_{PWYW} = $.65, t(217) = .03$). We did not detect differences in purchase rates (proportion of buyers out of all people who passed directly in front of the stand). After payment, participants completed a 3-question survey, which further revealed that PWYW customers viewed themselves as more selfish ($M_{PWYW} = 3.63$, $M_{PWYC} = 3.13$, t(203), p=.04). Finally, in experiments 2a/2b the distribution of payments differed between conditions ($Exp2a: p=.004$, $Exp2b: p=.007$, Kolmogorov-Smirnov), and were shifted toward amounts smaller than $1 (an indication of self-interested behavior) in the PWYW offer ($Exp2a: 51\% vs. 32\%$, p=.006; $Exp2b: 57\% vs. 36\%$, p=.002, chi2).

Experiment 3 addresses two concerns. First, in experiments 2a/2b the nature of the transaction (who the seller is, what happens to profit) was not specified; subjects could have assumed the sale was associated to a charitable cause. Second, we investigate the role of identity and image concerns. Since participants paid the seller directly, their behavior could be driven by social image (Andreoni and Bernheim, 2009) or identity concerns (Bénabou and Tirole, 2006). If the high payments under pay-what-you-can are only driven by impression management considerations, we should observe no effect in private. However, if the effects observed are due to self-signaling, the treatment effect should persist when payment is private, possibly leading to higher payments (see Gneezy et al. 2012).

Experiment 3 ($N=339$) took place in a for-profit context. We partnered with a business operating five coffee carts in a southwestern university, offered plain coffee under PWYW (PWYC), and crossed it with payment type (anonymous vs. seller). Our results reveal that individuals paid higher amounts under PWYW ($b=.289$, p=.005) both in private and public settings; we did not find an effect of payment type. We found no difference in the proportion of buyers out of the all of people who approached the cart across conditions. These results allow us to rule out impression management as the unique explanation for our effects.

Taken together, these studies are in line with our proposed mindset framework. Social mindset CEP offers produced higher payments, suggesting that subtle contextual cues (i.e. words) that shift mindset away from self-interest affect behavior.

**Because We’re Partners: How Social Values and Relationship Norms Influence Consumer Payments in Pay-What-You-Want Contexts**

**EXTENDED ABSTRACT**

Under Pay-What-You-Want (PWYW), the prices that consumers elect to pay often vary significantly. Sometimes the variance is small and clustered around a particular reference price, while other times the variance is much larger. In both of these cases, the average price paid may be significantly above zero, yet sellers who adopt PWYW pricing may have a preference for one type of distribution versus another.

In this paper we present a conceptual model of factors that explain systematic differences in how much consumers pay in PWYW contexts. We test its predictions both in the lab and in a field experiment with actual payments. We show that buyer payments are jointly influenced by individual differences in Social Value Orientation (SVO; McClintock 1972, McClintock and Allison 1989) and the degree to which exchange or communal relationship norms are salient (Mills and Clark 1982) for the buyer when the pricing decision is made. When exchange norms are salient, pro-selfs pay less than pro-socals, and are more likely to pay $0.00. However, when communal norms are salient, pro-selfs pay more than they do when exchange norms are salient, are less likely to pay $0.00, and the difference in payment between pro-selfs and pro-socals is attenuated. Additionally, we show that this change in payment behavior is partially mediated by a shift between economic and social motives. Finally, we show that sellers can influence communal norm salience, and by extension, buyer payment behavior, in PWYW situations in very low-cost ways.

Study 1 tests whether individual differences in SVO affect prices paid in PWYW settings. Our results showed that it did. Forty eight study participants were offered the opportunity to pay any price they wanted to purchase a pair of chocolate chip cookies using their own money, and we measured participants’ SVO after they made their purchase decision and paid (if applicable). A regression of SVO on payment amount showed that for those who chose to purchase cookies ($N = 22$), pro-socals paid significantly more than pro-selfs ($M_{pro-socal} = $6.2 vs. $M_{pro-self} = $1.22$, (β = .03, t(20) = 3.53, p < .01).

Study 2 examines the relationship between buyers’ social and economic motives on payment behavior. Twenty-eight undergradu-
motives after they submitted a written payment amount. We then ran two separate regression analyses with economic motive and social motive as the independent variables and payment amount as the dependent variable. Social motives had a positive effect and economic motives had a negative effect on payment amount ($β_1 = .32, t(21) = 2.05, p = .05$ vs. $β_3 = -.35, t(21) = -1.77, p < .10$, respectively). Study 3 builds on these findings by examining how SVO and relationship norms jointly influence these motives, which in turn influence how much consumers pay under PWYW.

Five hundred thirteen mTurk participants were told to imagine that they decided to stop in at a local coffee shop. Approximately half of the participants read a description that reflected a communal norm with the seller and the other half read one that reflected an exchange norm. They were then told that they could pay whatever they want for a 16-ounce of coffee at the shop, and were then asked to submit their purchase price. A regression analysis revealed significant main effects of SVO ($β = -.13, t(509) = -3.1, p < .01$) and of relationship norm ($β = .17, t(509) = 4.05, p < .0001$), and both of these effects were qualified by the expected SVO x relationship norm interaction ($β = .11, t(509) = 2.46 p < .01$). Additionally, when relative motive was included in the payment model, it had a significant effect on payment ($β = -.17, t(510) = -12.91, p < .0001$), and the significance of the norm x SVO effect on payment was reduced ($β = .10, t(509) = -4.05, p < .01$). The results indicate that the expected SVO x relationship norm interaction is a full mediation of the effect of SVO on payment ($β = .17, t(509) = 4.05, p < .0001$), indicating partial mediation.

In Study 4, we test whether merely priming relationship norms can affect payment behavior in a subsequent PWYW task (Aggarwal and Zhang 2006). 334 mTurk participants completed an SVO task and were exposed to either a communal prime or an exchange prime. They were then told to imagine that they could pay any price they wanted for a breakfast special. The subsequent regression analysis showed that pro-selves in the exchange norm paid less ($\$2.81$) than pro-socials ($\$3.25$); however, in the communal norm condition pro-selves ($\$3.21$) and pro-socials ($\$3.53$) paid similar amounts. A spotlight analysis (Spiller et al. 2013) showed that the difference in payments along the SVO continuum differed under the exchange prime (95% CI = -.0002, -0.001), but not under the communal prime (95% CI = -.0001, 0.000). Additionally, a mediation analysis showed that when relative motive was included in the payment model, it partially mediated the effect of SVO and relationship norm on payment ($β_{no\text{med}} = .00, t(336) = 1.33, p < 0.1$, $β_{med} = .00, t(336) = 2.24, p < .05$).

Finally, we ran a field study in which packets of gum were sold as PWYW at a student snack bar at a large, urban university. Relationship norm was manipulated via subtle changes in promotion messaging and imagery (communal = Because We’re Partners, It’s Your Turn to Set the Price Today; exchange = Special Promotion, It’s Your Turn to Set the Price Today) and social value orientation was manipulated via subtle changes in promotion messaging and imagery (communal = Because We’re Partners, It’s Your Turn to Set the Price Today; exchange = Special Promotion, It’s Your Turn to Set the Price Today) and social value orientation was measured as part of a customer satisfaction survey. The resulting analysis showed a marginal SVO x relationship norm interaction ($β = -.02, t (75) = -1.73, p < .09$). A floodlight analysis showed that the effect of SVO on payment was significant in the exchange norm condition (95% CI = -.003, .0452, $t(75) = 1.73, p < .09$), but not in the communal norm condition (95% CI = -.0398, .0177, $t(75) < 1, p = ns$), as expected.

This question lies at the intersection of two fundamental shifts in consumer culture: 1) the decreasing use of cash for payment transactions, and 2) declining brand loyalty and product retention. In the 1970s, consumers could choose between about five payment forms for most transactions, with cash being the dominant form of choice (Foster, Schuh, & Zhang 2013). However, the financial landscape has changed dramatically. In today’s marketplace, there are more than twenty potential methods of payment that people can use for payments (Foster, Schuh, & Zhang 2013). These payments all vary with respect to how psychologically distant they are from the consumer, and thus vary in terms of how much psychological pain an individual feels when spending with these various forms (Soman 2001, Raghurib & Srivastava 2008). Across field, laboratory, and archival studies, we examine whether payment form can influence post-transaction connection.

First, we use a field experiment selling mugs to determine whether payment method can influence post-transaction connection. The experimenter approached employees (N=63) of a private South-eastern university, asking each if they would like to purchase a mug. Individuals were informed that the mug normally sold for $6.95, but was discounted to $2 as part of a promotion. Individuals were randomly assigned to either the ‘Pay by Cash’ condition (a more painfull form of payment) or the ‘Pay by Plastic’ condition (e.g., debit/ credit card). Two hours following their purchase, the experimenter approached participants and asked them a series of questions. First, the experimenter asked the willingness to accept (WTA) for the mug, the amount necessary to give up their mug (i.e., the endowment effect). Participants were also asked how attached they felt to the mug and how painful it was to purchase the mug. Paying with cash increased the endowment effect ($M_{\text{Cash}} = 6.71, SD_{\text{Cash}} = 1.63, M_{\text{Plastic}} = 3.83, SD_{\text{Plastic}} = 1.79, t(60.1) = 6.67, p < .001$). Paying with cash also led to greater attachment to the mug ($M_{\text{Cash}} = 3.28, SD_{\text{Cash}} = 1.52, M_{\text{Plastic}} = 2.45, SD_{\text{Plastic}} = 1.17, t(58.1) = 2.42, p < .019$). Pain of paying fully mediates the relationship between payment form and post-transaction connection.

In Study 2, we used a laboratory experiment, randomly varying whether individuals donated a $5 bill (a more painful form of money) versus a $5 voucher to one of three charities of their choice, using someone else’s money. By having individuals donate money that wasn’t their own, we ruled out the possibility that wealth and income effects are driving the results. After making the donation, individuals were asked to rate how connected they felt to their chosen charity. Following their completion of the experiment, each participant was also given a ribbon lapel pin that signaled support for their chosen charity, as a thank you for the donation. We found that donating the $5 bill lead to higher post-transaction connection rating in comparison to making a donation by $5 voucher ($M_{\text{Cash}} = 5.81, SD_{\text{Cash}} = 0.88, M_{\text{Plastic}} = 5.32, SD_{\text{Voucher}} = 1.29, t(81.0) = 2.15, p < .034$). One week following the completion of the experiment, individuals were asked whether they had worn the lapel pin during the week. Individuals who paid by cash were more likely to wear a lapel pin, publicly signaling support for their chosen charity ($\chi^2(1) = 8.66, p < .003$; $M_{\text{Cash}} = 51.3\%, M_{\text{Plastic}} = 13.8\%$).

In Study 3, we replicate our findings using real-world using archival donation data in which we could determine whether paying with a more (versus less) painful form of payment in a given year would increase (decrease) the probability of donating in the subsequent year. Using data from business school donations over a nine-year span, we found that paying by check (a more painful form of money) increased the likelihood of making a donation in the following year by 9.9% (i.e., 62.3% likelihood to donate in year t + 1 by check versus 56.7% by credit/debit card; (62.3%-

**Paper or Plastic**: How We Pay Influences Post-Transaction Connection

**EXTENDED ABSTRACT**

When you pay for something, can how you pay—e.g., whether it is by cash, credit card, or debit card—change how much you value the product that you buy or how committed you feel to the brand?
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56.7%/56.7%=9.9%, p<.001). Thus, Study 3 demonstrated the robustness of payment form effects on organizational commitment, even over a one-year period.

Our findings suggest that psychological pain can influence how much individuals value their chosen product, how connected they feel to it, and how committed they are over time. Our work demonstrates the potential downstream benefits of increasing the psychological pain of payment for both organizations and individuals. Individuals are more financially, psychologically, and behaviorally committed to an organization and value products more when they pay with more painful forms of payment.

Rebate-What-You-Want

EXTENDED ABSTRACT

As a strategy, elective pricing has experienced mixed success compared with fixed pricing. On one hand, elective pricing strategies allow companies to reach segments that would not pay the firm’s fixed price (Mak, Zwick and Rao 2010), resulting in resulting in equal or greater profits compared with fixed pricing (Gneezy et al 2010; Riener and Traxler 2012). Yet in practice, each individual customer tends to contribute less revenue than the fixed price (Kim et al. 2009). For example, marketing research firm comScore reported that when the band Radiohead released its 2007 album, In Rainbows, with elective pricing, in its first month only 2 out of 5 downloaders paid a nonzero amount, netting overall only $2.26 per record (Lipsman 2007). This project tests a simple, but novel and previously unused approach that could help make elective pricing more sustainable for firms.

Under the new strategy, customers decide how much from a fixed price to receive back, rather than choosing how much to pay. For example, under the proposed strategy, a customer would choose how much change to receive after giving $5 for a sandwich, rather than choosing how much to pay for a sandwich with a $5 menu price. This is analogous to choosing a rebate amount rather than paying a voluntary price amount, and accordingly it is termed Rebate-What-You-Want (RWYW).

The behavioral and economic literature provides several reasons to expect why RWYW would be more effective than traditional elective pricing. Insights from prospect theory and past research on rebates suggest RWYW may encourage customers to be more willing to pay once they have already given the money to the firm. Prospect theory suggests people tend to overvalue prospective losses to prospective gains (Kahneman and Tversky 1979; Kahneman, Knetsch, and Thaler 1990), so they may value the dollars more if it is out of their pocket (a loss) than when it is in the form of change or rebate (a gain). Similarly, taking money back from the business also involves losses in psychological satisfaction from having contributed to a social good. Consequently, voluntary payments may seem more desirable when people set the amount of money to take back than when they set the amount to pay directly. Such framing effects have not been previously tested in the domain of voluntary pricing.

A second account for why RWYW increase contributions is the rebate requires additional action beyond the purchase. Previous research suggests people intend to use rebates, but do not follow through, a phenomenon known as breakage (Pechmann and Silk, 2013). Other possible explanations include that the framing change may affect social norms, the customer’s identification with the firm, or the strength of the reference price strength. This project tests the effectiveness of RWYW pricing relative to traditional elective pricing and assesses the relative strength of each explanation.

Study 1 tests the effects of RWYW framing on voluntary contributions. 127 undergraduate students imagined that they had an overdue university library book, and were asked how much they would be willing to pay in late fees. Half (n=63) were asked how much of a $10 bill in their pocket they would pay with while the other half (n=64) were asked how much change they would want back. Participants always selected a number between 1 and 9, and for comparability, the responses in the change condition were subtracted from 10. The change group paid 46% (nearly $2) more than the payment group (Mpayment = $3.67, SD=2.57; Mchange = $5.35, SD=2.48; F(1, 125)=14.04; p<0.001). This result suggests that in at least one domain, RWYW pricing may be more effective than PWYW pricing.

Study 2 tests whether a rebate frame increases elective payments while controlling for several alternate explanations including for reference price, product liking, goal strength, as well as the personal traits altruism and price consciousness. 235 students were asked how much to pay or how much change to receive for a sandwich (which was again reverse-coded.) Participants reported that they were more willing to pay for the sandwich when they selected the amount to receive back (Mchange = $5.02, SDchange = $1.72, Mpayment = $4.57, SDpayment = $1.61, F(1, 233) = 5.34, p = 0.02), a result that also persisted after controlling for the other factors (p<0.01).

Taken together, these studies suggest that framing elective payments as a rebate can increase total contributions. From one perspective, the RWYW approach offers a more sustainable model for practitioners than rebate pricing. Viewed from another perspective, this paper explores framing effects in the rebate domain, and in particular enables comparisons of the effect sizes of framing effects and rebate breakage, which are typically disconnected domains governing consumer behavior. This inquiry into why RWYW is effective provides insights to other domains of consumer choice such as framing, mental accounting, and time discounting.

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