2017

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2017 V45 1: pp. 204–230
DOI: 10.1111/1540-6229.12142
REAL ESTATE ECONOMICS

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We test the disjunctive thesis as it relates to mortgage contracts and find that a liquidated damages clause shifts ones view of a mortgage from a promise to perform to either a promise to perform or pay compensatory damages. However, when a strategic mortgage default is responsible for the breach, the perceived immorality of this action overwhelms the liquidated damages clause effect in support of the disjunctive thesis. We also find that people's conscious "experimentally stated preference" moral stance on installment loan (mortgages, auto loans, credit card debt and even cell phone contracts) default significantly differs from their subconscious "experimentally revealed preference" moral stance indicating a difference between what people say they believe and what they actually believe.

Introduction

For over a century there has raged a great debate in contracts theory as to whether a legal contract represents a (1) promise to perform, versus (2) a promise to perform *or* pay compensatory damages (Oliver Wendell Homes, Jr. 1897). The former, more restrictive notion is formally known as the "Disjunctive Thesis." Wilkinson-Ryan (2012) puts a finer point on the debate by asking the question "Is a contract the same thing as a promise?" People who view a contract as a promise (to perform) tend to view a breach of contract as the breaking of a promise. As such, the act of breach is viewed as being immoral. Conversely, those who reject the disjunctive thesis and view a contract as an option to either perform or pay (compensatory) damages, do not find breach of contract to be immoral.

As it relates to strategic mortgage default, the voluntary cessation of paying ones monthly mortgage payment even though he has the financial means to continue making payments, studies have found that 80%–90% of the public

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view strategic default as immoral (Guiso, Sapienza and Zingales 2013, Fannie Mae 2010).[1] In a nonreal estate setting, Wilkinson-Ryan (2010) posits that people generally view a contract as a promise to perform. However, when the contract contains a liquidated damages clause (stating how much one party is to be compensated when the other party breaches), many shift their stance and begin to view the contract as either a promise to perform *or* pay damages.

In a real estate setting, Wilkinson-Ryan (2011) discusses the potential application of these concepts to strategic mortgage default. However, she performs three empirical vignette experiments on other aspects of default which we do not address in this study. Specifically, Wilkinson-Ryan (2011) empirically examines people's willingness to strategically default when home prices drop in decile increments under three conditions: when the lender has engaged in egregious behavior—issuing subprime loans and receiving government bailout funds (Study 1), when the lender is a local versus an international bank—an examination of "social distance" (Study 2), and when mortgage defaults are more commonplace—an examination of "social norms" (Study 3).

We improve upon the Wilkinson-Ryan (2010, 2011, 2012) studies in a number of ways. We (1) simultaneously examine and compare strategic mortgage default to a number of other types of consumer loans, (2) perform multivariate statistical analysis (as opposed to just univariate), (3) create an experimental environment that is more generalizable (*i.e.*, less locational, loan, and context specific), (4) collect a greater number of borrower demographic variables, (5) concatenate the dataset with many additional explanatory variables and (6) use a much larger sample size.

Specifically in this study, we empirically test whether the presence of a liquidated damages clause causes a mortgage contract to shift from being viewed as a promise to perform versus a promise to either perform or pay. We then test to see if default intent (economic vs. strategic) has any impact on the result. Moving more broadly, we expand the analysis to then examine how residential mortgage defaults compare to defaults on other installment loans such as auto loans, credit cards and even phone contracts. Finally, using the concept of a psychological contract,[2] we identify the individual characteristics within people that cause them to view the morality of mortgage default differentially.

[1] Seiler (2015a, b) argues that it is for this reason that strategic mortgage default is not far more commonplace.

[2] A legal contract is one that is recognized and enforceable by a court of law. A psychological contract is how a specific party to that contract views the terms of the agreement. The party's viewpoint may well be flawed and even unenforceable.

We find that a liquidated damages clause does indeed alter the applicability of the disjunctive thesis to mortgage defaults. Moreover, when the default was strategic in nature, people are so morally opposed to the breach that the liquidated damages clause effect is overwhelmed by the strategic default effect. Also, breaching a mortgage contract is relatively on par with the breaching of auto loans, credit card debt and phone contracts. However, people's experimentally stated versus revealed preferences across each loan type are significantly different. That is, what they say they believe is incongruent with what we find them to believe, empirically. Finally, the individual characteristics of those who find mortgage default to be less immoral include (1) blaming the lender more so than the borrower for the financial crisis, (2) those who have previously defaulted on a mortgage, (3) those who have specifically strategically defaulted on a mortgage in the past, (4) those who reside in states hardest hit by the housing crisis, (5) those without children and (6) minorities.

The remainder of the study is as follows. We next turn to a discussion of arguments in favor of and against strategic mortgage default. Then, we review the foundational papers of Wilkinson-Ryan (2010, 2011, 2012). Next, we present an experimental design to test our hypotheses followed by a description of our data and data collection method. The results describe our findings, and then the paper concludes.

Morality Debates Relating to Mortgage Default

The morality of mortgage default is greatly debated in both the popular press and within academic journals. This section highlights the core arguments to emphasize the many subtle nuances relating to this hotly debated issue.

Arguments in Favor of Mortgage Default Morality

After a mortgage default and eventual foreclosure that occurred in a recourse state,[3] lenders are only allowed to seek a deficiency judgment for compensatory damages, not for punitive damages. Punitive damages are those that are awarded to the breached party to punish the breaching party. White (2010) argues that the presence or absence of punitive damages signals whether the breach represents an immoral act. A counter position is taken by Bridgeman (2011) who additionally argues that even if punitive damages were allowed

[3]In a recourse state, the lender can seize not only the home, but can come after the borrower for missed payments, interests, late penalties, costs to foreclose on the home and so forth. Alternatively, in a non-recourse state, the lender's only recourse in the event of default is to seize the home—which serves as the collateral basis of the loan.

in a mortgage setting, it still would not make it acceptable for the borrower to breach his agreement. Consider the example of a burglar who is willing to risk going to prison if he is caught breaking into a store. A willingness to pay punitive damages (going to prison) does not make breaking into a store morally justifiable.[4]

Laws within a society generally reflect the moral values of its citizens. As such, a second legal observation suggesting the courts do not view strategic mortgage default as immoral is that even when compensatory damages are allowed, they are often mitigated. For example, Congress passed into law the elimination of a tax liability on forgiven mortgage debt. Alternatively stated, if a lender writes down a borrower's debt from $300,000 to $100,000, it used to be the case that the borrower would have to claim the difference ($200,000) as income and pay taxes accordingly. Counter arguments to this observation are that the government is not allowing this debt forgiveness to be untaxed because of its stance on mortality, but because it does not want the heavy tax burden to quell mortgage workout solutions out of a concern that it might further undermine economic recovery efforts.

A more permanent legal argument supporting the morality of strategic mortgage default is that in the event of bankruptcy, unpaid mortgage debt can be forgiven/reduced in both a Chapter 7 and Chapter 13 filing. This places mortgage debt on the level of credit card and other forms of unsecured debt. Alternatively, student loans and taxes are not forgiven in the event of bankruptcy. A counter-argument to this stance taken by the United States government is that bankruptcy laws are written to protect the government's assets to a higher standard than protecting a corporation's assets, not to speak to the morality of various types of loans. To explain, taxes get collected by local, state and the federal government. The U.S. Bankruptcy Code does not absolve this debt because doing so is not in the government's self-interest. By similar reasoning, absolving student loans is a macroeconomic concern because it affects education, which has a national platform.

To delve deeper into the argument and to support the claim that the government places their asset protection above that of a corporation, consider that when filing for bankruptcy, retirement and child education saving funds (subject to a 12-month look back) are untouchable by creditors in the event of bankruptcy. This means that a strategic defaulter can deposit the money he is not paying on his mortgage into an Individual Retirement Accounts (IRAs),

[4]If this argument does not seem strong enough, consider a person's willingness to murder someone and pay both compensatory damages (say $10 million) as well as punitive damages (death by electrocution).

401k, a child's education fund, etc., and those funds will be completely protected in bankruptcy. Clearly, the government is expropriating wealth from current creditors to future taxpayers (via lesser reliance on social security by the strategic defaulter and a greater attainment of education for the children of strategic mortgage defaulters).

On a related note, bankruptcy laws are associated with state-specific personal and home exemptions. This simply means that in the event of bankruptcy, filers are allowed to keep a "reasonable" level of wealth in assets deemed important and/or necessary. Although it could be argued that these provisions are just another example of society's stamp of moral approval, others would vehemently argue that these caps do not make strategic default (and the often linked strategic bankruptcy) morally copasetic by the same reasoning that being willing to go to prison for burglary does not morally justify stealing.

Wheaton, Nechayev and Seiler (2015) argue that strategic mortgage defaults are a market clearing necessity that has the further benefit of imposing a much needed discipline on a lending industry that ran amuck. In support of this argument, Wilkinson-Ryan (2012) introduces the discussion of a psychological contract. A legal contract represents what a court of law would uphold based on what is written into the contract. A psychological contract reflects what a party to the contract believes or interprets the contract to contain.[5] It is important to note that even though the psychological contract can be completely incorrect and therefore entirely unenforceable, it still impacts how the party treats the contract as behaviorally binding their actions. Wilkinson-Ryan argues that there are two remedies for breach of a psychological contract: retaliation or exit.[6] As it relates to borrowing money, the retaliation could come in the form of a strategic mortgage default (Wilkinson-Ryan 2011, Seiler 2014a). This action exemplifies the imposed discipline referenced by Wheaton, Nechayev and Seiler (2015).

We are loath to give credence to arguments that strategic mortgage defaults are not immoral based on the observations that lenders rarely pursue deficiency amounts left by defaulting borrowers because too many counter explanations

[5]Individuals are notorious for injecting their personal viewpoints into a contract where the law clearly states their position has no legal bearing. As an example, when asked if infidelity matters in a divorce proceeding, most individuals would say the cheating spouse would lose many rights and privileges. The reality, however, is that several states are "no fault" states meaning that who committed the infidelity has no impact on the divorce proceeding.

[6]In an employment setting, retaliation might come in the form of taking longer breaks, performing at a sub-par level, spreading discontent around the office and the like. Exit clearly implies leaving the company for another job.

exist for this lender behavior. For example, although it is true that lenders rarely pursue deficiency judgments, the reasons for this inaction is more likely attributed to the cost to pursue such legal engagements, a lack of manpower to pursue such collection efforts, and most likely, the desire to avoid throwing good money after bad. Alternatively stated, many defaulters do not have the financial means to make it worth the lender's time and money to pursue a claim they will certainly be awarded by the court, but may possibly never receive because of the borrower's financial standing. In a similar fashion, the common willingness to settle the debt based on the unpaid balance (UPB) at the time of default without consideration of missed payments, penalties and interest, and so forth, has little to do with morality and more to do with a financial calculation of return on (future) investment. This willingness to settle for less is exaggerated when a second lien holder is involved (Been, Jackson and Willis 2012, Bond et al. 2012, Lee, Mayer and Tracy 2012, Agarwal et al. 2015) or when the property is located in a judicial foreclosure state where the time to proceed through a foreclosure can be extremely lengthy (Ghent and Kudlyak 2011, Harrison and Seiler 2015).[7]

Arguments Against Mortgage Default Morality

The strongest argument against the morality of strategic mortgage default is that most people view entering into a contract as tantamount to making a promise. And, for the most part, people feel strongly that breaking a promise is immoral. Unlike breaking a promise to an individual, breaching a mortgage causes real financial damages not just to the other party, but to society as a whole. In this sense, breaching a mortgage contract is like breaking a promise to everyone, not just to a single lender.

As discussed in the previous section, in the event of bankruptcy, unsecured corporate debt and mortgages are lower on the pecking order than paying off taxes and student loans. When a lender or credit card company experiences a loss, this raises the future cost of borrowing for everyone, not just the strategic defaulter. Thus, strategic defaulters (many times using the U.S. bankruptcy Code as a shield), expropriate wealth from Wall Street which in turn must make up for those losses by collecting from Main Street. By way of the transitive property, strategic defaulters cause financial damage to everyone.

[7]Seiler *et al.* (2012) document that people have an extremely limited understanding of foreclosure laws, recourse versus non-recourse states, bankruptcy laws, etc., whereas Seiler (2014b) discusses that even attorneys who specialize in settling mortgage default disputes have little predictive ability of how these laws will come together to affect the outcome of a settlement agreement.

In a more direct sense, these spillover effects are well documented in a geospatial setting, also referred to as the foreclosure contagion effect (Immergluck and Smith 2006, Harding, Rosenblatt and Yao 2009, Lin, Rosenblatt and Yao 2009; Rogers and Winter 2009, Campbell, Giglio and Pathak 2011, Gerardi *et al.* 2013). When a single home in a neighborhood goes into foreclosure, that home sells for less, slightly lowering the value of the homes around it (Clauretie and Daneshvary 2011). When a second home goes into foreclosure, surrounding property values drop even further. As more homes go into foreclosure, the foreclosure discount increases at an increasing rate potentially collapsing a housing market (Gangel, Seiler and Collins 2013). This localized view of the impact of strategic mortgage defaulters on those around them is more easily seen by the general public as a true external cost imposed by strategic mortgage defaulters.

A more abstract, but still legitimate reason to view strategic mortgage default as immoral is that if too many borrowers strategically default, it erodes confidence in the overall lending system, encourages the moral hazard problem (*i.e.*, encourages more borrowers to follow suit), and thus further raises the cost of borrowing (Miller 2011). In the extreme, widespread default can cause financial panics which can result in a liquidity crisis which can bring a financial market sector to a grinding halt.[8]

Wilkinson-Ryan Foundational Studies

The primary focus of Wilkinson-Ryan (2010) is to examine whether or not a liquidated damages clause causes people to view a breach of contract as being less immoral. The idea is that in the absence of a liquidated damages clause, people act according to the social norm. In the United States, most people view a contract as a promise to perform, not a promise to perform or pay just compensation. As such, breach of contract feels like breaking a promise, which people view as morally wrong. However, when a contract specifically includes the remedies available in the event of a breach, people shift their view of the contract from a promise to perform to an option to either perform or pay damages, resulting in a reduction in the moral impact of a breach.

Wilkinson-Ryan (2010) performed three vignette experiments to test this idea. The first setting involved the rental of a restaurant for a party and a training seminar for workers at a temp agency. Using a sample size of 99 (72 of which were females), Wilkinson-Ryan found support for her hypotheses.[9]

[8]Consider the case of Commercial Mortgage-Backed Securities (CMBS) during the financial crisis.

[9]The only demographic data collected were age and gender.

The second vignette introduced a penalty clause and found that people prefer to breach a contract with a penalty clause even though it is more expensive to do so. In the final vignette, the author asked nine questions to further understand the thought process people went through when thinking about liquidated damaged clauses in contracts.

Wilkinson-Ryan (2011) qualitatively argues that the conclusions from her 2010 study could apply to real estate in a strategic mortgage default setting. However, she did not at all test for the effects of a liquidated damages clause in any of her three vignette experiments (as we do in this study). Instead, her goal was to examine potential psychological triggers that might reframe a borrower's perception of a foreclosure as an option within the contract as opposed to default representing a moral dilemma. Study 1 examined the effect of lender characteristics (lenders who received government bailout funds vs. those who did not and those who did vs. did not engage in subprime lending) on borrowers' willingness to strategically default when home prices dropped by deciles stepping from 0% to 100%. As hypothesized, lenders who behaved more egregiously were met with a greater willingness by borrowers to strategically default while experiencing less moral contemplation.

This first vignette solicited 153 borrower opinions (70% of which were females) by creating a setting where they were asked to imagine they bought a home in CA in 2005 for $500,000 via a subprime, interest-only, non-recourse loan, using no down payment. They further informed borrowers that their home is worth much, much less and that the lender refused to modify their loan. Subjects were also told their credit report would be adversely affected for the next 7 years (which is inaccurate in most cases). Still, they were told they would save "substantial amounts of money" by walking away even after controlling for the credit hit (having bad credit makes obtaining future credit both more difficult and more expensive). While clearly there are many restrictive assumptions being made in this experimental setting, as is often necessary in an attempt to isolate the variable of interest—in this case, the hypothesized increased willingness to strategically default when the other party to a contract (*i.e.*, the lender) has behaved egregiously. Study 1 found statistical significance using a within subjects design, but not when employing a between subjects design.

In the second vignette, Wilkinson-Ryan (2011) uses the same 153 respondents to test whether or not loan characteristics (*i.e.*, those held in local lender portfolios versus those sold into the secondary market) has any effect on a borrower's willingness to strategically default. The reasoning is that borrowers who originate loans with a local bank with whom they have a relationship are less inclined to default when compared to a distant, nameless, faceless bank

with whom they have no relationship or strong association. Simply stated, it is easier to default on a stranger than to default on a friend. Her results support her "social distance" hypothesis.

The third vignette in Wilkinson-Ryan (2011) tested the question that if loan default was more commonplace, would it make it more likely that the marginal borrower would associate this increased frequency with a decreased stigma effect resulting in a greater willingness to default? She argues that placing a foreclosure sign in a defaulter's yard when few defaulters exist creates a level of shame that works as a deterrent to future potential defaulters. However, if foreclosure signs become commonplace, then the stigma/shame of default is mitigated because everyone is doing it. More formally, a shift in the social norm (from not defaulting to defaulting) lessens the immorality of strategic mortgage default. Using a sample of 100 people, the author finds significant results with the between subjects design (but not in the within subjects design).

Finally, Wilkinson-Ryan (2012) provided a qualitative discussion of psychological contracts (but no empirical testing), tying together many of the ideas from her past studies, among others. Our study applies many of the legal concepts from Wilkinson-Ryan (2010, 2011, 2012), but does not repeat any of her tests. Instead, we seek to improve upon her studies by examining morality surrounding breach of a number of consumer contracts including mortgages, auto, credit card and phone contracts, conduct multivariate statistical analysis rather than simple univariate tests, incorporate a greater number of demographic and other potential explanatory variables, create an experimental environment that is less assumption restrictive, and use a much greater sample size.

Experimental Design

Bhutta, Dokko and Shan (2011) provide several reasons why experimental data are needed to examine strategic mortgage default related issues. In fact, the case becomes even stronger when specifically examining the fine points of morality as it relates to strategic mortgage default. For example, nowhere in transactions (secondary) data are measures of moral viewpoint collected. As such, if one wants to understand more about the issue, (primary) data must be collected.

We begin by creating a 2×3 "between subjects" experimental design where the first treatment is a liquidated damages clause versus the absence of such a clause. As explained previously, the hypothesis is that when a liquidated damages clause is added to the contract, people will view the contract as less of a promise to perform and more of a promise to either perform or pay

damages. The second treatment has three variants. This treatment differentiates between a strategic mortgage default, and economic default, and a default where no reason is provided. We hypothesize that because of the default intent, strategic mortgage default will be viewed significantly differently from the others.

Since stated preferences (what people say they would do in a situation) are not always consistent with revealed preferences (what people actually do), we follow an experimentally revealed preference design.[10] This is accomplished by creating six unique treatments or paths, only one of which each participant follows, being completely unaware that the other five paths exist and also being completely unaware of the goal of our research. Participants are only told that we are doing research on the housing market—which is self-evident upon reading our first question. Our six (2×3) treatments are as follows: (A) = a contract with a stated Liquidated Damages clause, (B) = a contract without a stated Liquidated Damages clause; (1) neutral (no reason given for the default), (2) informing the participant that the default was strategic and (3) informing the participant that the default was economic in nature. Below is what the participant read. Note that the italicized words inside the brackets were not visible to the participant, but serve only to convey all six variants to readers of this study to highlight the points of differentiation.

> "A couple bought their home a while back. Today, because home prices have fallen so far, they now owe much more on the loan than the home is worth.
>
> [Liquidated Damages clause—which either is or is not present]
>
> Within the mortgage contract, it states that if the borrower fails to make his monthly payment, the home will be taken away and sold for whatever the market will pay at that time. Any remaining amount still owed to the lender will have to be paid by the borrower to make the lender "whole." In other words, the lender will receive the same rate of return on this loan whether the borrower defaults or not.
>
> [no Default Intent provided] The couple has stopped making their monthly mortgage payments.

[10]Samuelson (1938) identified a revealed preference as one that reflects a consumer's behavior when actually making a purchase or decision. Since our results are based on an experiment, as opposed to an actual transaction, in deference to Paul Samuelson, we refer throughout this study as the subject indicating an experimentally stated preference versus an experimentally revealed preference.

> [Strategic Default intent provided] This couple can afford to make their payments, but has stopped making monthly mortgage payments because they believe it is no longer in their best financial interests.
>
> [Economic Default intent provided] After a series of financial setbacks brought on by an unexpected major illness, this couple is no longer able, and has thus stopped making their monthly mortgage payments.
>
> Please rate the morality of the couple no longer making their monthly payments: scale 1∼8 (1 = immoral to 8 = moral)."

It is our intended purpose to remove the financial consideration from the calculation and to instead focus on the differentiation between a promise to perform versus a promise to either perform or pay damages. To this end, we begin by being intentionally vague on exactly how long this situation has been ongoing ("A couple bought their home a while back"). Also note that the liquidated damages clause states that the breached party is financially unaffected by whether or not the borrower defaults ("... the lender will receive the same rate of return on this loan whether the borrower defaults or not").

Wilkinson-Ryan (2011) correctly asserts that lenders are affected when borrowers default even in recourse states because of bankruptcy law protections, a lack of borrower assets/income, varying state foreclosure laws, differential legal costs, labor force restrictions, foreclosure contagion effects and so forth. A counter-argument is that although a loss may occur on an individual loan level, banks have experienced record profits during the recession (despite historically high mortgage default rates) due to an ability to raise interest rates on different types of new consumer loans, charge higher fees, being "too big to fail," and so forth. However, the purpose of this study is not to debate the net impact of the housing crisis on lenders. Instead, the experimental design clarification is meant to hold constant the financial impact consideration, thus allowing for a pure test of our hypothesis. In this sense, this experimental assumption is like other necessary assumptions that may depart from reality in order to hold all other variables constant. Specifically, we ask respondents to hold constant the financial impact on the lender in order to examine the central research question, "Does a liquidated damages clause convert a promise to perform into a promise to either perform or pay damages?" without confounding the issue. To the extent respondents can accept our established parameter, this provides a direct test of the disjunctive thesis.

Our second treatment effect, default intent, comes in three variants: no reason given for the default, strategic default and economic default. So as not to require participants to know these definitions, we simply describe the scenarios that reflect the underlying definitions, just as we did the liquidated damages clauses. In the Results section, we compare morality scores and draw inferences from these tests.

Data

All data are collected through an on-line platform where homeowners stand ready to participate in studies such as these for a fee[11]. Within this network, there exists a clearinghouse, who acts as an independent middleman offering certain protections for both researchers and participants. Examples of participant protections include ensuring their complete anonymity, guaranteeing payment for services (subject to approval by the researcher) and so forth. For the researcher, participant ratings are reported by past researchers to ensure the participant has taken the task seriously and completed it with a high degree of quality. We set this past approval rating at a minimum of 95% in order for a participant to be allowed in our study.[12] In addition to requiring the clearing of past approval rating hurdles, we take additional response quality precautions by creating two simple questions dispersed throughout the experiment where all the participant has to do is read a statement that tells them to answer, say "7," on the scale from 1 to 9. With two of these questions throughout, there is only a 1 in 81 chance that the participant is randomly clicking on the correct answers without reading the questions.

More subtly, we place hidden timers on all screens of the experiment and know exactly how long (down to the milli-second) each participant stayed on a page before moving to the next screen. Someone who fails to read our question and randomly clicks an answer is easily identified by an unreasonably short time spent on the page.[13] The better the screens placed on the experiment, the more accurate the testing of our hypotheses. It is important to point out that if participants do not take the experiment seriously, and hurry through it

[11]Unlike a wealth maximization study where a clear end goal is established (such as maximizing the return on an investment), our study of morality does not have "right" or "wrong" answers. For this reason, we do not compensate based on "performance," but instead pay a flat fee to compensate participants for their time. This is the standard operating procedure for this type of study.

[12]In return for their clearinghouse services, the company charges a 10% fee to the researcher.

[13]The robustness of our results is examined by testing various timer filters for each of our key questions. Results are not sensitive to these cutoffs which admittedly should vary based on people's differential reading speeds.

without offering deep consideration for what is written, this works towards a null result. In this sense, there is an added incentive to design a high-level of quality control within the experiment.

We posted this experiment in the summer of 2014, and allowed the first 2,000 homeowners who responded from across the country to participate. When participants enter our experiment, they are randomly assigned to just one of the six treatments, having no idea other treatments even exist. Of the 2,000 respondents, 62 observations were jettisoned for a variety of screening reasons, resulting in a final sample size of 1,938 valid and complete responses. Homeowners from all 50 states plus DC are represented in our sample. To our knowledge, this sample size constitutes the largest experimental sample ever collected.

The average age of our participants is 36.9 years, whereas the average age of homeowners reported in the American Housing Survey (AHS) and American Community Survey (ACS) is 52. Our (AHS) participants are 83.1 (79.1%) Caucasian, and 61.0% (52.3%) are married with 51.1% (66.2%) having at least one child. In sum, it appears our sample is reasonably reflective of the overall homeowner profile across the United States with the possible exception of age, which we address latter in the study.

Table 1 reports summary statistics for our sample when segmented by each of our six (2×3) treatment effects. A cursory glance confirms that our randomization of respondents into one of the six pools appears successful in that both the behavioral and demographic characteristics are relatively uniform across pools. Although this is to be expected when collecting such a large sample, we offer this table to preempt any concerns readers might have concerning the randomization of participants into each pool.

Results

Table 2 reports the results from our main hypotheses. Each column in the table corresponds to one of our six treatments. To examine whether or not liquidated damages cause a person to move from viewing a contract as a promise to perform to them now viewing a contract as a promise to either perform or pay damages, we compare Columns (1) and (4). When adding the liquidated damages clause to the scenario, the morality score changed by 0.316 (4.07 – 3.76) points, a statistically significant shift at the 95% level of confidence.[14]

[14]One potential limitation of this study is whether the statistically significant results are also economically significant. While economic significance is a matter of opinion,

Table 1 ■ Data collection summary statistics by respondent pool.

	Liquidated Damages			No Liquidated Damages			
	(1)	(2)	(3)	(4)	(5)	(6)	
Variable	Neutral	Strategic Default	Economic Default	Neutral	Strategic Default	Economic Default	Full Sample
Behavioral characteristics							
Blames the lender							
Nine-point scale	3.99	3.93	3.67	3.73	3.64	3.83	3.79
Dummy	0.54	0.56	0.57	0.58	0.56	0.53	0.56
Home as an investment							
Nine-point scale	7.00	6.93	7.07	7.14	6.78	6.97	6.99
Dummy	0.09	0.08	0.06	0.07	0.11	0.06	0.08
Previous default (%)	5.92	4.71	6.43	6.17	6.43	5.82	6.19
Past Strategic default (%)	11.11	14.29	5.00	15.00	5.00	14.29	10.83
Demographics							
Children							
Number of children	0.96	1.01	1.06	1.05	0.91	0.81	0.97
Dummy	0.48	0.50	0.54	0.57	0.48	0.49	0.51
Minority dummy	0.17	0.21	0.18	0.12	0.18	0.16	0.17
Male dummy	0.46	0.50	0.47	0.49	0.52	0.50	0.49
Married dummy	0.58	0.64	0.66	0.64	0.62	0.53	0.61
Income (seven-point scale)	3.32	3.51	3.38	3.39	3.29	3.21	3.34
Net Worth							
Nine-point scale	3.78	3.76	3.51	3.76	3.85	3.80	3.74
Positive net worth dummy	0.66	0.67	0.58	0.66	0.68	0.65	0.65
Age	37.06	36.76	37.09	37.31	36.53	36.33	36.84
N	304	297	341	324	311	361	1,938

Notes: This table reports summary statistics for the sample segmented by respondent pool for each of the six different treatments (a 2×3 experimental design). *Blames the Lender* is measured on both a nine-point scale where 1 = the respondent more so blames the lender, 9 = more so blames the homeowner, and as a dummy variable where 1 = more so blames the lender, and 0 otherwise; *Home as an Investment* is also measured on both a 9-point scale where 1 = the homeowner views his home as more of an investment, 9 = homeowner views his home as more of a consumption good and as a dummy variable where 1 = homeowner views his home as more of an investment, and = 0 views as more of a consumption good. *Previous Default (%)* = the % of respondents who have at any time defaulted on a mortgage. *Past Strategic Default (%)* = the % of those defaults that were strategically in nature. *Number of Children* reports the respondent's number of dependent children; *Child Dummy* = 1 if the respondent has at least one dependent child living at home, 0 = otherwise. *Minority Dummy* = 1 if the respondent is not Caucasian, 0 otherwise; *Male Dummy* = 1 for men, 0 otherwise; *Married Dummy* 1 = married, 0 otherwise; Income is measured on a seven-point scale from 1 (under $20,000) to 7 (over $100,000); Net Worth is measured on a 9-point scale from 1 (less than -$400,000) to 9 (over $1,000,000); *Age* is in years

Table 2 ■ Morality of mortgage default by liquidated damages and default intent.

	Liquidated Damages			No Liquidated Damages		
	(1)	(2)	(3)	(4)	(5)	(6)
Morality Score	Neutral	Strategic Default	Economic Default	Neutral	Strategic Default	Economic Default
Panel A: Frequency Distributions						
1	14.1%	23.2%	3.2%	12.3%	23.2%	2.5%
2	11.2%	16.5%	2.1%	16.0%	15.1%	2.5%
3	18.8%	16.8%	6.2%	21.9%	22.8%	10.5%
4	13.5%	14.5%	8.8%	15.1%	10.6%	10.8%
5	17.4%	11.1%	16.7%	15.7%	11.6%	17.2%
6	10.5%	9.4%	21.7%	10.5%	7.1%	19.9%
7	5.6%	4.0%	18.2%	3.4%	3.2%	19.1%
8	8.9%	4.4%	23.2%	4.9%	6.4%	17.5%
Σ	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
$\bar{x}$	4.07	3.40	5.87	3.76	3.39	5.61
σ^2	2.11	2.03	1.82	1.90	2.07	1.82
N	304	297	341	324	311	361
Panel B: Least Significant Difference—*Post Hoc* Tests						
Liquidated damages vs. no liquidated damages					Δ	p-value
Neutral (no mention of reason) default					0.316	0.043**
Strategic mortgage default					0.015	0.926
Economic mortgage default					0.262	0.076*

Notes: This table reports the frequency of morality scores under six different treatments (a 2×3 experimental design). *Liquidated Damages* refers to a clause conveyed to the respondent as follows: "Within the mortgage contract, it states that if the borrower fails to make his monthly payment, the home will be taken away and sold for whatever the market will pay at that time. Any remaining amount still owed to the lender will have to be paid by the borrower to make the lender 'whole.' In other words, the lender will receive the same rate of return on this loan whether the borrower defaults or not." *No Liquidated Damages* refers to the absence of this clause in the treatment. *Neutral* does not share the reason the couple defaulted on the mortgage. *Strategic Default* shares that the couple can afford to make their payments, but has stopped making monthly mortgage payments because they believe it is no longer in their best financial interests. *Economic Default* shares that after a series of financial setbacks brought on by an unexpected major illness, this couple is no longer able, and has thus stopped making their monthly mortgage payments. Panel A reports the frequency distribution, mean, standard deviation and sample size for all six treatments. Panel B reports Least Significant Difference (LSD) Post Hoc tests of statistical significance. **Δ** refers to the difference in the mean morality scores between paired treatments. * indicates statistical significance at the 90% level; ** indicates statistical significance at the 95% level; *** indicates statistical significance at the 99% level

we can partially deflect this concern by reasoning that a movement from 3.76 to 4.07 crosses over the threshold from not being willing to strategically default (less than or equal to "4" on the 8-point scale) to a value above 4. Moving from one side of this threshold to the other seems economically impactful.

Confirming the ability of a liquidated damages clause to overturn the disjunctive thesis, in general, we next shift our focus to whether or not default intent has any influence over the way people view contracts (as a promise to perform or a promise to either perform or pay damages). We find that default intent makes a statistically significant difference. When an economic default is described, liquidated damages remain significant in their ability to shift the way people view a legal promise (Columns 3 vs. 6). However, when a strategic mortgage default is described, the mean morality scores are almost identical ($\Delta = 0.015$; P-value $= 0.926$).[15] This implies that the perceived immorality of strategic default overwhelms, even to the point of erasing, the liquidated damages effect. Alternatively stated, in strategic default cases, the disjunctive thesis holds true, whereas in economic default (or unknown default intent) cases, it does not.[16]

Table 3 graphs the cumulative distribution function (CDF) of the morality responses associated with the four treatments representing default intent (strategic versus economic) and the presence or absence of liquidated damages. The space within the paired curves measures the liquidated damages effect, whereas the space between the paired curves represents the default intent (strategic vs. economic) effect. As is clearly pictorially evident, people do not view strategic mortgage default as a moral action.

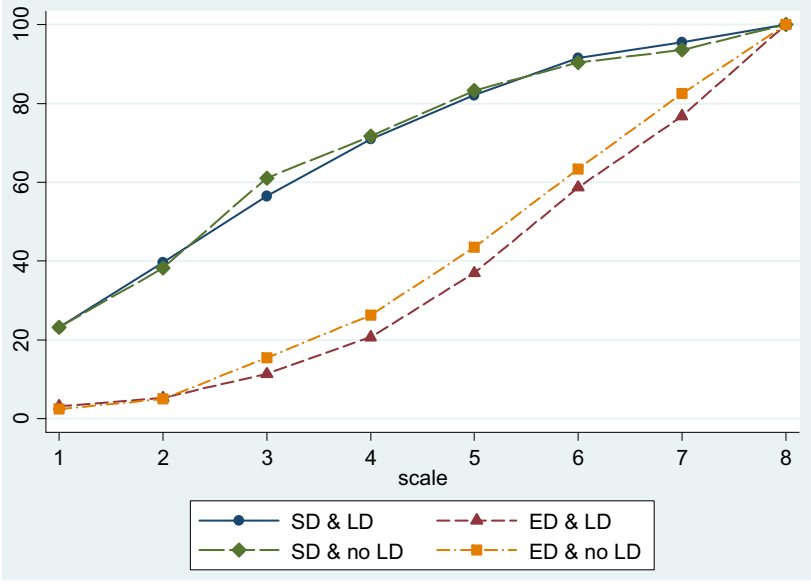
We next examine from a morality perspective if people view defaulting on a mortgage the same way they view defaulting on other types of contracts. To this end, we introduced an extension of the experiment to auto loans, credit card debt and phone contracts. Below is the wording used in testing the morality of defaulting on a car loan.

> "A couple bought a car a while back. The car loan contract states that if the borrower fails to make his monthly payment, the car will be taken away and sold for whatever the market will pay at that time. Any remaining amount still owed to the lender will have to be paid by the borrower to make the lender "whole." In other words, the lender will receive the same rate of return on this loan whether the borrower defaults or not.
>
> The couple has stopped making their monthly car payments.

[15]Of course, the scores are significantly lower which reflects a more immoral action.

[16]To clarify, in all cases, adding a liquidated damages clause makes it more acceptable to pursue the alternative of a promise to pay damages. However, the only case where this difference is not significant is in the strategic default case.

Table 3 ■ Cumulative distribution function of morality scores by strategic versus economic default.



Notes: This graph conveys the cumulative distribution function of morality scores for both strategic and economic defaults across liquidated damages and non-liquidated damages treatments. *Strategic Default (SD)* shares that the couple can afford to make their payments, but has stopped making monthly mortgage payments because they believe it is no longer in their best financial interests. *Economic Default (ED)* shares that after a series of financial setbacks brought on by an unexpected major illness, this couple is no longer able, and has thus stopped making their monthly mortgage payments. *Liquidated Damages (LD)* refers to a clause conveyed to the respondent as follows: "Within the mortgage contract, it states that if the borrower fails to make his monthly payment, the home will be taken away and sold for whatever the market will pay at that time. Any remaining amount still owed to the lender will have to be paid by the borrower to make the lender 'whole.' In other words, the lender will receive the same rate of return on this loan whether the borrower defaults or not." *No LD* refers to the absence of this clause in the treatment

> Please rate the morality of the couple no longer making their monthly payments: scale 1∼8 (1 = immoral ∼ 8 = moral)"

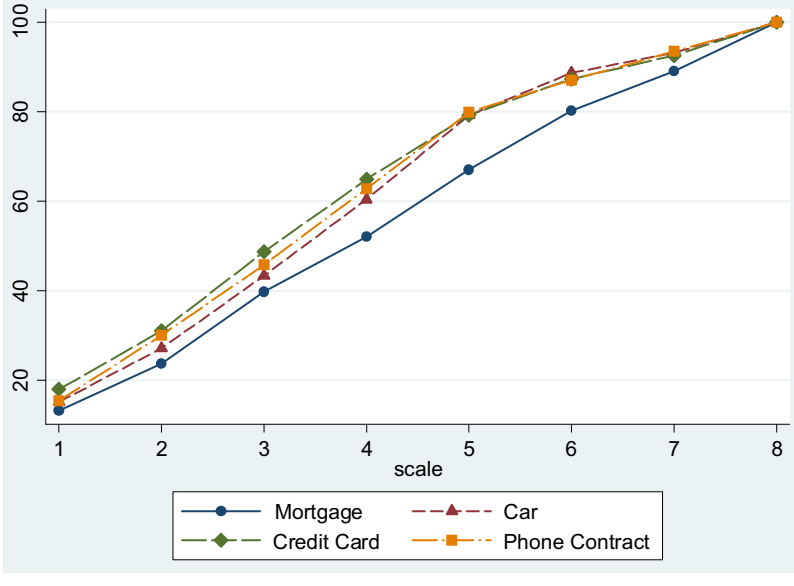
Note the intentional similarity in wording between the auto loan and mortgage examination. In fact, all three additional examinations are consistently worded to the fullest extent possible to allow for direct comparisons. In Table 4, the three treatments (car, credit card and phone) all reflect the liquidated damages

Table 4 ■ Experimentally revealed preference: morality associated with defaulting on car loans, credit cards and phone contracts.

Panel A: Frequency Distributions

Morality Score	Car		Credit Card		Phone Contract	
	Freq.	CDF	Freq.	CDF	Freq.	CDF
1	15.1%	15.1%	17.9%	17.9%	15.4%	15.4%
2	11.9%	27.1%	13.1%	31.0%	14.5%	30.0%
3	16.3%	43.3%	17.8%	48.7%	15.9%	45.8%
4	17.1%	60.4%	16.2%	64.9%	17.0%	62.8%
5	18.8%	79.2%	14.3%	79.2%	17.0%	79.9%
6	9.5%	88.7%	8.0%	87.3%	7.2%	87.1%
7	4.5%	93.2%	5.3%	92.6%	6.5%	93.5%
8	6.8%	100.0%	7.4%	100.0%	6.5%	100.0%
Σ	100.0%		100.0%		100.0%	
$\bar{x}$	3.93		3.78		3.85	
σ^2	2.02		2.10		2.05	
N	621		636		681	

Panel B: CDFs of Experimentally Revealed Preference Differences for each Loan Type



Notes: This table reports the frequency of revealed preference morality scores associated with defaults on three different types of contracts. No explanation was provided for the default, and all treatments expressed Liquidated Damages. *Car* refers to the treatment where the following was explained to the participant: "A couple bought a car a while back. The car loan contract states that if the borrower fails to make his monthly payment, the car will be taken away and sold for whatever the market will pay at that time. Any remaining amount still owed to the lender will have to be paid by the borrower to make the lender 'whole.' In other words, the lender will receive the same rate of return on this loan whether the borrower defaults or not." *Credit Card* and *Phone Contract* refer to the second and third treatments where the couple stopped making payments on their credit card and phone contract, respectively. The above language was adjusted accordingly. Panel A reports the frequency distribution, mean, standard deviation and sample size for all three treatments. Panel B graphs the CDFs for each loan type

clauses and are all silent concerning the reason for default. In this sense, Panel A of Table 4 is comparable to Column 1 in Panel A of Table 2. In addition to the numerical reporting in Panel A, Panel B graphically depicts the extreme similarity across loan types, suggesting consumers do not view the morality of defaulting on these other types of contracts differentially.

Table 4 results are based on the experimentally revealed preference of the consumer. That is, we compare the results derived from the experiments where respondents do not know what we are testing. This is important because it is much debated in the literature whether what people say they believe is actually what they believe. Revealed preference tests, such as the ones we have reported thus far, reveal participants' true views of morality.

Where Table 4 reports experimentally revealed preference measures, Table 5 reports experimentally stated preference measures.[17] Specifically, In Panel A, we asked each participant to rate on an 8-point scale whether they believe each of the four contract types represents and promise to perform (1) OR a promise to either perform or pay damages (8). The tabular results in Panel A are graphically depicted in Panel B. Notice that the scores are extremely similar across loan type, but that these experimentally stated preference values appear substantially lower than the experimentally revealed preference values reported in the previous table. Table 6 performs a series of Paired-Samples T-Tests and confirms that the results from Tables 4 and 5 are statistically significantly different from each other. At a 99% level of significance, we find there is a conflict between how people say they view the morality of defaulting on a mortgage (and other installment loans) versus how they actually view its morality.

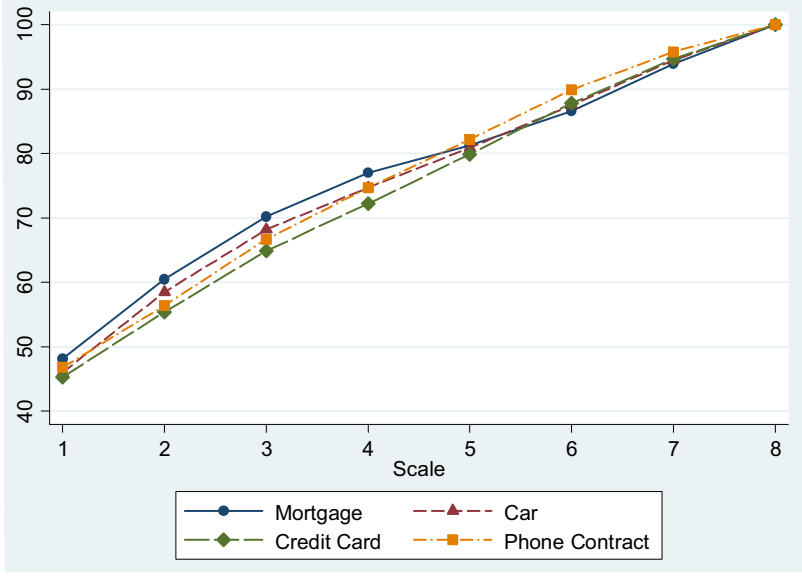
When generating the results from a controlled experiment, most disciplines find it only necessary to perform univariate statistics to reach conclusions. The reason is as follows. When collecting transactions data, prices are observed in a world where many other variables are changing simultaneously. Thus, it is necessary to use a multivariate technique, such as multiple regression, in an attempt to hold everything else constant. Alternatively, in a

[17]To conduct this test, we follow a within-subjects design. Our purpose in using a between-subjects design in Table 4 is to gain an understanding of the sub-conscious (experimentally revealed preference), whereas our purpose in using the within-subjects design in Table 5 is to gain an understanding of the conscious (experimentally stated preference). To avoid confusion, we want to clarify that a within-subjects design does not offer more (or less) convincing results. Instead, it is an experimental design variation needed when testing specific subhypotheses within the same treatments. In Table 5, we are considering further hypotheses outside the main treatment effects, so a within-subjects design is appropriate.

Table 5 ■ Experimentally stated preference: a promise to perform OR a promise to perform or pay damages?.

Promise vs. Compensate Score	Mortgage		Car		Credit Card		Phone Contract	
	Freq.	CDF	Freq.	CDF	Freq.	CDF	Freq.	CDF
Panel A: Frequency Distributions								
1	48.1%	48.1%	46.0%	46.0%	45.3%	45.3%	46.8%	46.8%
2	12.4%	60.5%	12.4%	58.5%	10.1%	55.4%	9.6%	56.4%
3	9.7%	70.2%	9.7%	68.2%	9.5%	64.9%	10.3%	66.7%
4	6.8%	77.0%	6.5%	74.7%	7.3%	72.2%	8.0%	74.7%
5	4.3%	81.3%	6.2%	80.9%	7.7%	79.9%	7.5%	82.2%
6	5.3%	86.6%	6.7%	87.5%	7.9%	87.8%	7.7%	89.9%
7	7.3%	93.9%	7.0%	94.5%	6.9%	94.7%	5.9%	95.8%
8	6.1%	100.0%	5.5%	100.0%	5.3%	100.0%	4.2%	100.0%
Σ	100.0%		100.0%		100.0%		100.0%	
$\bar{x}$	2.82		2.90		3.00		2.87	
σ^2	2.33		2.32		2.33		2.24	
N	1,938		1,938		1,938		1,938	

Panel B: CDFs of Experimentally Stated Preference Differences for each Loan Type



Notes: This table reports the frequency of distribution for the respondents' opinion as to whether each contract (Mortgages, Car Loans, Credit Cards, and Phone Contracts) represents a promise to perform OR a promise to either perform or pay compensatory damages. Panel A reports the frequency distribution, mean, standard deviation and sample size for all four loan types. Panel B graphs the CDFs

Table 6 ■ Statistical difference between experimentally stated versus revealed preferences.

	Experimentally Stated Versus Revealed Preference		
Contract Type	Stated Preference	Revealed Preference	*p*-value
Mortgage	4.07	2.71	0.00***
Car	3.93	2.88	0.00***
Credit Card	3.78	3.04	0.00***
Cell Phone	3.85	3.13	0.00***

Notes: This table performs paired-samples T-tests for statistically differences between experimentally stated versus revealed preferences for each type of contract (mortgages, car loans, credit cards, and phone contracts). * indicates statistical significance at the 90% level; ** indicates statistical significance at the 95% level; *** indicates statistical significance at the 99% level

controlled experiment, ceteris paribus is achieved on the front end of the study by isolating only the variables of interest to be tested. Recognizing the norm in real estate to use a regression-based approach for analysis, we next turn to a model where we explain the morality scores relating to our central hypothesis (the univariate results to which were reported in Table 2) when adding a series of additional exogenous control variables.

The dependent variable is the morality score on a scale from 1∼8. The first set of independent variables is our treatment variables. Consistent with our central hypotheses and as discussed throughout the paper, we expect these five ($N-1$) treatments to be significant reflecting the significance of both the liquidating damages clause and default intent.

The second group of independent variables contains six metrics. *Blames the Lender* is a dummy variable that has been found to impact strategic default viewpoints in that those who believe lenders are more to blame (than homeowners) for the financial crisis are hypothesized to view default as less immoral (Seiler et al. 2012). This is consistent with the Wilkinson-Ryan (2012) argument of psychological contracts where when a borrower perceives breach by the lender, the borrower's most accessible retaliatory response is to strategically default on the loan. As such, we hypothesize a positive coefficient for this variable.

Home as an Investment dummy flags those who view his home as more of an investment as opposed to a consumption good. When a borrower views his home as more of an investment, we hypothesize he will see the default decision as less of a moral issue and more of a financial one. *Previous Default*

Table 7 ■ Regression results explaining morality of default.

Independent Variables	Model I Initial Model – Treatments Only	Model II Initial Model – All Variables	Model III Final Model
Intercept	4.07***	4.14***	3.92***
	(0.11)	(0.22)	(0.16)
Treatment pools			
LD & Strategic Default	−0.67***	−0.69***	−0.70***
	(0.16)	(0.16)	(0.16)
LD & Economic Default	1.80***	1.78***	1.79***
	(0.15)	(0.15)	(0.15)
No LD & Neutral Default	−0.32**	−0.31**	−0.31**
	(0.16)	(.15)	(0.15)
No LD & Strategic Default	−0.69***	−0.71***	−0.71***
	(0.16)	(0.15)	(0.15)
No LD & Economic Default	1.54***	1.54***	1.58
	(0.15)	(0.15)	(0.15)
Behavioral characteristics			
Blames the lender		0.76***	0.77***
		(0.09)	(0.09)
Home as an investment		0.05	
		(0.16)	
Previous default		0.47**	0.49***
		(0.19)	(0.19)
Past Strategic default		1.19**	1.14**
		(0.56)	(0.56)
Problem state		0.30***	0.33***
		(0.11)	(0.10)
Recourse state		−0.08	
		(0.10)	
Demographics			
Child dummy		−0.17*	−0.23***
		(0.10)	(0.09)
Minority dummy		0.29**	0.31***
		(0.12)	(0.12)
Male dummy		0.13	
		(0.09)	
Married dummy		−0.11	
		(0.10)	
Income		−0.02	
		(0.03)	
Net worth		−0.04	
		(0.03)	

Table 7 ■ Continued.

Independent Variables	Model I Initial Model – Treatments Only	Model II Initial Model – All Variables	Model III Final Model
Observations	1,938	1,938	1,938
F-statistic	107.68	41.87	63.85
p-value	0.00***	0.00***	0.00***
Adjusted R^2	0.22	0.26	0.26

Notes: This table reports the results from three regressions where the dependent variable is the morality measure on an 8-point scale where 1 = Not at all Moral to 8 = Completely Moral. The *Treatment Pools* section includes five of the six ($N-1$) treatments (where the Liquidated Damages with No Reason given for the mortgage default serves as the holdout group). *LD & Strategic Default* represents the treatment when the person strategically defaulted under a liquidated damages clause; *LD & Economic Default is* when the person economically defaulted under a liquidated damages clause; *No LD & Neutral Default is* when there was no reason given for the default and no liquidated damages clause; *No LD & Strategic Default is* when the person strategically defaulted and there was no liquidated damages clause; *No LD & Economic Default is* when the person economically defaulted and there was no liquidated damages clause; The *Behavioral Characteristics* section includes six variables. *Blames the Lender* is measured as a dummy variable where 1 = the respondent more so blames the lender, 0 otherwise; *Home as an Investment* = 1 when the homeowner views his home as more of an investment, and = 0 when it is viewed as more of a consumption good. *Previous Default* = 1 if the respondent previously defaulted on a mortgage, 0 otherwise. *Past Strategic Default* = 1 if the respondent has strategically defaulted on a mortgage in the past. *Problem State* reflects those states hardest hit by the housing crisis (AZ, CA, FL, MI, and NV). *Recourse State* = 1 when the state is a recourse state, 0 otherwise. *Demographic* includes six variables. *Child Dummy* = 1 if the respondent has at least one dependent child living at home, 0 = otherwise. *Minority Dummy* = 1 if the respondent is not Caucasian, 0 otherwise; *Male Dummy* = 1 for men, 0 otherwise; *Married Dummy* 1 = married, 0 otherwise. Model I reports results from including only the five (N-1) treatment effects. Model II reports results from including all explanatory variables, while Model III reports only final model results where all the variables are significant. * indicates statistical significance at the 90% level; ** indicates statistical significance at the 95% level; *** indicates statistical significance at the 99% level. Standard errors are reported inside the parentheses

is a dummy for whether or not the respondent has defaulted on a mortgage in the past, whereas *Past Strategic Default* is a dummy marking the past default as being strategic in nature. Past studies such as Guiso, Sapienza and Zingales (2013) use a variable that asks respondents what percentage of all the people they know who have defaulted did so strategically. This hearsay measure is wrought with all sorts of measurement error, and as such, we use a much more direct question. We hypothesize the sign on these two variables to be

positive because having gone through a default in the past makes one more empathetic and less judgmental.

The final two independent variables in this section are concatenated with the dataset to incorporate state-level market conditions that may influence respondents. *Problem State* is a dummy variable that reflects those states hardest hit by the housing crisis (AZ, CA, FL, MI and NV). Homeowners who live in these states have observed a greater incidence of default around them, which we hypothesize would make them more understanding of those who have gone through the process. Thus, we expect a positive sign on this variable. Finally, *Recourse State* is a dummy variable flagging those states where the lender can come after the borrower in the event of default.

The third section includes a series of demographic variables (whether the person has children, ethnicity, gender, marital status, income and net worth) not because of any hypothesized relations, but more of an explanatory exercise.[18] As such, we leave sign expectations as an open-ended empirical question.[19]

In Model I, only the five ($N-1$) treatments are included. As hypothesized, and consistent with our univariate findings, all five treatments are statistically significant and carry a sign consistent with the univariate results from Table 2. This means that a liquidated damages clause does lead people to shift their view of a mortgage contract from a strict promise to perform to more of either a promise to perform or pay compensatory damages. Concerning strategic default, when people learn the reason for the default was intentional, there is a strong sense of immorality condemning the actions of the borrower. Relatively speaking, the strategic default effect exceeds the strength of the liquidated damages effect.

In Model II, all explanatory variables are included. In addition to the treatment effects remaining robust, blaming the lender, having previously defaulted, particularly when that default was strategic in nature, and living in a problem state, are also significant. Concerning demographic data, having children is associated with a significantly less moral viewpoint towards default. Finally,

[18] Although we do not ask for education level or occupation, we argue that these variables are sufficiently proxied by metrics such as income and net worth.

[19] We originally included Age as an independent demographic variable in our model, but no matter how Age was specified (directly, or when broken into various buckets), the variable was never significant. Moreover, at the request of a reviewer, we tested whether examining a subsample of homeowners closer in age to that of the national average of all homeowners might affect the results. As a robustness check, we restricted the sample to those plus and minus 10 years of the national average homeowner age of 52 years, and the results remain virtually unchanged.

minorities view mortgage default as less immoral. In Model III, only the significant variables remain. It is worthy of noting that all the variables that are significant in Model II remain significant in Model III, our final model.[20]

Conclusion

This study tests the long-debated "disjunctive thesis" as it applies to a residential mortgage setting. Specifically, we examine the ability of a liquidated damages clause in a mortgage contract to shift ones view from a promise to perform to an option to either perform or pay compensatory damages. We reject the disjunctive thesis by finding that a liquidated damages clause does in fact shift views toward an option to either perform or pay. However, when the mortgage breach is strategic in nature, the disjunctive thesis holds; people view the breach of mortgage with and without the liquidated damages clause as being statistically indistinguishable. Simply stated, the results clearly demonstrate that a liquidation clause causes a person's view to shift from a promise to perform to either a promise to perform OR pay just compensation. The exception to this statement is that if the default is strategic in nature, focus is shifted to morality and people revert back to the mortgage contract as strictly a promise to perform.

Consistent with other common installment contracts such as auto loans, credit cards and phone contracts, people say they view mortgage default as being immoral (an experimentally stated preference measure). However, when an experimentally revealed preference measure is taken, we find that people truly view default as being significantly less immoral. This discrepancy between experimentally stated and revealed preferences is not uncommon and is the reason we took the extra measure to control for this in our study.

When identifying disparate moral viewpoints on mortgage default, we find that (beyond our main treatment effects), those who blame lenders more so than borrowers for the financial crisis, those who have previously defaulted (particularly when that past default was strategic in nature), those who live in the hardest hit states during the financial crisis, those without children, and minorities significantly view default as less immoral.

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[20]This model is robust to an alternative Logistic regression specification where the dependent variable is recoded as either immoral (scores 1∼4) and moral (scores 5∼8).

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