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The Role of Prospect Theory in Explaining the Perceived Moral Reprehensibility of Strategic Mortgage Default

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- **Economic Default**: When a homeowner defaults on his mortgage due to an inability to make monthly payments

- **Strategic Default**: When a homeowner makes the conscious choice to default on his mortgage even though he is fully capable of making his monthly payments

Strategic Mortgage Default

- **25% of all homes are underwater**
  - Yet far fewer loans are in default
- **Strategic Defaults (SD) are on the rise**
  - Estimated to be from 10%~26%
    - Guiso, Sapienza, and Zingales (2013), FICO (2011), and Wyman (2010)
- **Viewed as a major reason for the slow economic recovery**

- **Financial life after mortgage breach is currently extremely uncertain**

  ➢ And varies greatly by state

     ➢ strategicdefault.org & youwalkaway.com

  ➢ Cost of time, legal expenses, and even health concerns (anxiety, marital problems, etc.)

     • Engelberg & Parsons, 2014; Seiler, 2014a

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- **Why is SMD potentially attractive?**
  - ➤ Live rent-free (in the meantime – for years)
  - ➤ Low Probability of Lender Recourse
    - • Even in states that allow for lender recourse
  - ➤ Lenders are overwhelmed with cases
  - ➤ Legal pursuit is expensive
  - ➤ Many borrowers do not have the money
    - • Winning is not the same as collecting
  - ➤ May reach a settlement below UPB (BR threat)

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- **SMD is widely viewed as being immoral – even by people who do it**
  - 80%~90% of people view SMD as immoral

- **Many mitigating circumstances**
  - Lender Characteristics (egregious lender; distant versus local lender; common vs. uncommon default)
  - Borrower Characteristics (controls used later in the study)

- **Prospect Theory: Losses hurts more than equivalent gains feel good**

  - Kahneman and Tversky (1979)

- **Definition of the Reference Point**

  - Typically a purchase price

- **Main Hypotheses: Strategic vs. Economic Default matters**

- **Gain vs. Loss Domain matters**

- **We throw in a number of other controls**

Data

- **1,938 valid and complete homeowners from across the United States**

- **Data scrubbed via several techniques**

- **On-Line Experiment (Mturk) via Qualtrics**

- **Respondent homeowners generally consistent with those from national homeowner pools**

  - American Housing Survey (AHS)

  - American Community Survey (ACS)

Data

▪ Well-Vetted Pool of Homeowners

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Experimental Design

- **3 x 3 design**
- **Between Subjects design**
  - ➢ Participants see only 1 of the 9 paths
- **Treatments Include:**
  - ➢ Default Intent
    - • No reason given; Strategic Default; Economic Default
  - ➢ Domain
    - • Loss; Break-even; Gain

A couple bought a home a while back. At some point, they stopped making their monthly mortgage payments, but remained living in the home.

Taking into consideration all the financial factors (falling home prices, missed mortgage payments, "rent-free" living, late fees and interest, and so forth) the lender proposed the couple give back the house **AND pay the lender $80,000 to "equitably" settle the loan**. While this amount represents a "fair settlement" offer, **for the couple to "break-even" on their overall investment, they would need to pay the lender only $40,000**.

The couple made a counter-offer to give back the house BUT pay the lender only $60,000 to settle the loan.

Please rate the morality of the couple's counter-offer to give back the house AND pay the lender $60,000, resulting in an **overall loss of - $20,000** ($40,000 - $60,000) on their investment. scale 1~8 (1 = Not at all Moral ~ 8 = moral)

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Please rate the morality of the couple's counter-offer to give back the house AND pay the lender $20,000, resulting in an **overall Gain of + $20,000** ($40,000 - $20,000) on their investment.

Treatment 4: Loss Domain & Strategic Default

A couple bought a home a while back. The couple could afford to continue making their monthly mortgage payments, but believed it was no longer in their best financial interests. At some point, they stopped making their monthly mortgage payments, but remained living in the home.

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A couple bought a home a while back. ==After a series of financial setbacks brought on by an unexpected major illness, the couple was no longer able to continue making their monthly mortgage payments.== At some point, they stopped making their monthly mortgage payments, but remained living in the home.

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Exhibit 1 – Panel A
Morality by Default Intent and Domain

Panel A: Frequency Distributions

Morality Score	No Reason Given			Strategic Default			Economic Default		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Loss Domain	Break Even	Gain Domain	Loss Domain	Break Even	Gain Domain	Loss Domain	Break Even	Gain Domain
1	3.9%	2.3%	12.0%	9.1%	8.7%	17.4%	1.3%	1.4%	5.3%
2	2.5%	2.3%	11.0%	7.7%	4.1%	11.3%	2.5%	1.4%	6.2%
3	6.9%	9.1%	14.1%	7.7%	14.2%	12.2%	7.2%	5.4%	12.8%
4	7.9%	7.8%	12.0%	12.4%	7.8%	16.9%	5.9%	6.8%	11.5%
5	18.2%	19.2%	9.4%	13.4%	16.0%	15.0%	13.1%	14.9%	15.0%
6	21.2%	16.9%	17.8%	19.1%	16.9%	10.8%	22.0%	27.9%	19.5%
7	13.8%	15.1%	6.3%	9.6%	11.9%	6.1%	16.9%	18.9%	10.2%
8	25.6%	27.4%	17.3%	21.1%	20.5%	10.3%	30.9%	23.4%	19.5%
Sum	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Mean	5.81	5.87	4.61	5.14	5.19	4.09	6.16	6.09	5.21
Median	6	6	5	5	5	4	6	6	5
Mode	8	8	6	8	8	1	8	6	6 & 8
σ^2	1.91	1.87	2.34	2.25	2.21	2.22	1.77	1.61	2.09
N	203	219	191	209	219	213	236	222	226

Ending in the Gain Domain is Less Moral (1~3; 4~6; 7~9,)

Break-Even vs. Loss Domain doesn't matter

Morally forgiving of Economic Defaulters (not SD)

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The lender believes $80,000 is a "fair and equitable" settlement offer for both parties. Alternatively, for the couple to "break-even" on their overall investment in the home, they would need to pay the lender only $40,000.

In addition to giving back the house (as mutually agreed), what do you believe would be a "**morally appropriate**" amount for the couple to pay to settle their debt with the lender? $_____

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Exhibit 2 – Panel A
"Morally Appropriate" Settlement Offer?

Panel A: Cumulative Distributions of Offers

CDF of Offers	No Reason Given			Strategic Default			Economic Default			
	(1) Loss Domain	(2) Break Even	(3) Gain Domain	(4) Loss Domain	(5) Break Even	(6) Gain Domain	(7) Loss Domain	(8) Break Even	(9) Gain Domain	Overall
$0k	4.9%	6.4%	2.1%	3.3%	5.9%	1.4%	5.9%	5.0%	5.8%	4.6%
$10k	11.3%	8.7%	5.2%	7.7%	10.0%	2.8%	8.1%	7.7%	9.3%	7.9%
$20k	15.3%	11.4%	16.2%	9.6%	12.3%	11.7%	14.0%	9.5%	22.1%	13.6%
$30k	15.3%[a]	12.8%	22.0%	10.0%	13.7%	17.4%	16.5%	12.2%	32.7%	17.0%
$40k	36.5%	51.1%	64.9%	34.4%	44.3%	61.5%	41.9%	51.4%	75.2%	51.2%
$50k	51.2%	62.6%	72.3%	42.6%	54.3%	68.1%	57.6%	65.3%	81.9%	61.8%
$60k	80.8%	84.5%	86.4%	67.0%	75.8%	81.2%	83.1%	87.4%	92.0%	82.1%
$70k	84.7%	88.1%	88.0%	73.7%	78.5%	82.2%	87.7%	88.7%	92.5%	85.0%
$80k	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Mean	$49,318	$47,023	$43,764	$54,873	$49,966	$47,031	$48,102	$46,888	$38,491	$47,243
Median	$50,000	$40,000	$40,000	$60,000	$50,000	$40,000	$50,000	$40,000	$40,000	$40,000
Mode	$60,000	$40,000	$40,000	$80,000	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000
σ^2	$21,896	$20,216	$19,354	$21,513	$22,631	$19,659	$20,670	$19,154	$19,052	$20,884
N	203	219	191	209	219	213	236	222	226	1,938

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Exhibit 2 – The Reasonable Result

- **Strategic Default "Morally Appropriate" offers are higher than No Reason Given offers**

- **No Reason Given offers are higher than Economic Default offers**

  - Compare Columns (1,4,7; 2,5,8; and 3,6,9)

- **This makes perfect since because people view ED as less immoral than SD.**

  - Therefore, they should pay less to resolve the loan

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Exhibit 2 –
The Unreasonable Result

- **No Reason Given: columns (1~3),**
  - ➤ Mean offer scores smoothly transition from $49,318, 47,023, to $43,764 under the loss, break-even, and gain domains, respectively.

- **Same Pattern for SD and ED**

- **But, why are the Gain Domain offers higher?!? They should be LOWER to reflect people not liking folks ending in the gain domain.**

- **Seriously…WHY?**

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Exhibit 2 –
The Unreasonable Result

- **My (uncertain) guess is that respondents are ANCHORING to the stated offers made by the couple.**

- ➢ **In the Gain Domain, the couples' offer was $20,000**

- ➢ **In the Break-Even, the couples' offer was $40,000**

- ➢ **In the Loss Domain, the couples' offer was $60,000**

- **Should I instead report in this (or another) exhibit the difference between the couple's offer and the respondent's suggested offer?**

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Exhibit 2 –
The Unreasonable Result

- **If I did, my numbers would look like this:**

- **Then, it would be clear that Loss Domain borrowers should pay LESS and Gain Domain defaulters should pay MORE.**

	No Reason Given			Strategic Default			Economic Default			
	(1) Loss Domain	**(2) Break Even**	**(3) Gain Domain**	**(4) Loss Domain**	**(5) Break Even**	**(6) Gain Domain**	**(7) Loss Domain**	**(8) Break Even**	**(9) Gain Domain**	**Overall**
Couples' Offer	$60,000	$40,000	$20,000	$60,000	$40,000	$20,000	$60,000	$40,000	$20,000	$40,000
Mean	$49,318	$47,023	$43,764	$54,873	$49,966	$47,031	$48,102	$46,888	$38,491	$47,243
Δ	-$10,682	+$7,023	+$23,764	-$5,127	+$9,966	+$27,031	-$11,898	+$6,888	+$18,491	+$7,243

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Exhibit 3 – Summary Statistics Highlights

Variable	Obs.	Mean/Median	Std. Dev.	Minimum	Maximum
Behavioral Characteristics					
Blames the Lender					
9-point Scale	1,938	3.79	2.04	1	9
Dichotomous Scale	1,938	55.66%	0.48	0	1
Home as an Investment					
9-point Scale	1,938	6.99	2.05	1	9
Dichotomous Scale	1,938	7.89%	0.27	0	1
Previous Default	1,938	6.19%	0.24	0	1
Economic Default	1,938	89.17%	0.23	0	1
Strategic Default	1,938	10.83%	0.08	0	1
Demographics					
Child Dummy	1,938	51.08%	0.50	0	1
Male Dummy	1,938	49.12%	0.50	0	1
Married Dummy	1,938	61.00%	0.49	0	1
Age	1,938	36.84	11.34	18	79
Income	1,938	3.34	1.52	1	7
Positive Net Worth Dummy	1,938	65.02%	0.48	0	1
Ethnicity	1,938				
Caucasian	1,630	83.08%			
African American	101	5.21%			
Hispanic	92	4.75%			
Asian	98	5.06%			
Other	37	1.91%			
Region	1,938				
Midwest	431	22.24%			
Northeast	386	19.92%			
Southwest	694	35.81%			
West	427	22.03%			

1 = Lender is more to blame;
9 = Borrower

1 = Views home as more of an investment;
9 = Consumption Good

Exhibit 4 – Morality of Default

- **Model I: Initial Model (experimental variables)**
  - ➢ **Correct sign and statistical significant**
    - • Strategic Mortgage Default AND Gain Domain

- **Model II: Initial Model (all variables)**
  - ➢ **Experimental Variables: Stable signs, coefficients, & significance levels**
  - ➢ **Significant variables include: Blames the Lender, Past Strategic Default and Males**

- **Model III: Final Model (only significant variables)**
  - ➢ **Results remain robust**

Exhibit 5 –
Morally Appropriate Offers

- **Model I: Initial Model (experimental variables)**
  - ➢ **Statistical significant (Sign discussion !?!)**
    - • Strategic Mortgage Default AND Gain Domain (Sign!?!)

- **Model II: Initial Model (all variables)**
  - ➢ **Experimental Variables: Stable signs, coefficients, & significance levels**
  - ➢ **Significant variables include: Blames the Lender, Home as an Investment, Past Strategic Default, Minority, and income**

- **Model III: Final Model (only significant variables)**
  - ➢ **Results remain robust**

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Conclusions

- Public is significantly more accepting of a defaulter who ends in the loss domain or the break-even domain (i.e., who earns a zero or negative return on his home investment).

- Strategic defaulters are consistently and significantly viewed as having acted immorally when compared to economic defaulters.

- These two findings are also reflected in "Morally Appropriate" suggested settlement offers.

Conclusions

- **Those who more so blame the lender**
- **Those who view their home as more of an investment**
- **Those who have previously strategically defaulted**
- **Minorities**
- **Those with lower incomes**

➢ **Significantly suggest lower settlement offers.**

Thank You for inviting me !