

Behavioral Public Finance

Edward McCaffery

USC Center in Law, Economics and Organization

Research Paper No. C08-13

USC Legal Studies Research Paper No. 08-17



**CENTER IN LAW, ECONOMICS
AND ORGANIZATION
RESEARCH PAPER SERIES and LEGAL
STUDIES RESEARCH PAPER SERIES**

University of Southern California Law School
Los Angeles, CA 90089-0071

Behavioral Public Finance

Ed McCaffery
USC and CalTech
Gruter Institute for Law & Behavioral Research
Squaw Valley Conference
May, 2008

Overview

- Task of BPF
- Unifying Principle: Isolation Effect
- Examples
- Why it Matters
- What is to be Done?

Task of BPF

- Behavioral Finance
 - Heuristics and biases, plus
 - Arbitrage mechanisms
 - Competition and market itself (Smith's invisible hand)
 - E.g., marginal cost pricing
 - Note on Paige Skiba's work on "pay day loans," (http://law.vanderbilt.edu/faculty/faculty-detail/index.aspx?faculty_id=22) and consider marginal social areas where markets don't flourish?
 - See generally Barberis and Thaler 2003

Task of BPF

- Behavioral **Public** Finance
 - Same heuristics and biases, *without*
 - Markets (or competition)
 - Query, will politicians maximize wealth or utility, or exploit biases?
 - Suffer from biases themselves?
 - » Blind leading blind?
 - Where there is competition, it is for votes and popularity, not collective wealth
 - Compare hidden costs in mutual funds (e.g., bid-ask spreads) with hidden taxes
 - See generally McCaffery and Baron 2006, McCaffery and Slemrod 2006
 - Note all empirical work here is joint with Jon Baron of Penn Psychology

Unifying Principle: Isolation Effect

- We make decisions looking at parts of whole, as if with blinders on, ignoring logically relevant information “offstage”
 - Neural, evolutionary bases
 - Others call focusing effect
- See (or not) Michael Shermer’s gorilla
 - Note to non attendees” Michael is the founder of the Skeptics Society, a delightful and charming man, and he showed us a video of students passing around a ball wherein, by focusing on counting the number of passes, we are missed that a gorilla appeared and danced in the midst of the video. Excellent example of focusing effect

Examples

- Metric and Schelling Effects
- Disaggregation Bias (Humpty Dumpty)
- Masking Redistribution
- Starving the Beast

- Note on within-subject, Web based design
- Also note, quality of slides may be poor, due to my primitive Web capture technique; see McCaffery and Baron 2006 (or version available on SSRN, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=567767#PaperDownload), for underlying detail and better graphics.

Metric and Schelling Effects

\$25,000	\$50,000	\$100,000	\$200,000
Answer in dollars:			
9.3	11.7	15.2	16.8
Answer in percent:			
9.2	13.0	18.8	24.6

Table 2: Mean fair taxes (in percent) as a function of income.

Disaggregation Effect

Given rates on:					Response:				Mean
					Dollars		Percent		
\$20k	\$40k	\$80k	\$160k	\$320k	Total	Other	Total	Other	
Payroll tax given, Income tax response									
0	0	0	0	0	14.97	14.60	17.56	16.90	16.01
0	5	10	15	20	14.89	21.13	17.60	23.68	19.32
5	10	15	15	15	15.25	21.68	17.20	24.28	19.60
10	10	10	5	5	15.28	18.84	17.55	22.51	18.54
Income tax given, Payroll tax response									
0	0	0	0	0	15.66	13.24	17.02	16.15	15.52
0	5	10	15	20	15.44	20.35	17.13	22.01	18.73
0	8	16	24	32	16.00	24.13	17.79	27.36	21.32
10	10	10	10	10	14.75	18.71	16.92	22.11	18.12
Mean:					15.28	19.09	17.35	21.87	

Table 3: Total taxes in percent.

Disaggregation Effect

Given rates on:					Response:				Mean
					Dollars		Percent		
\$20k	\$40k	\$80k	\$160k	\$320k	Total	Other	Total	Other	
Payroll tax given, Income tax response									
0	0	0	0	0	3.73	4.47	5.99	5.99	5.05
0	5	10	15	20	3.89	7.38	5.85	9.20	6.58
5	10	15	15	15	3.83	5.75	6.03	7.16	5.69
10	10	10	5	5	3.80	2.70	6.05	5.43	4.50
Income tax given, Payroll tax response									
0	0	0	0	0	4.46	3.74	6.11	5.61	4.98
0	5	10	15	20	4.26	6.53	5.85	8.33	6.24
0	8	16	24	32	4.30	9.20	5.76	10.95	7.55
10	10	10	10	10	3.76	3.31	5.67	5.68	4.60
Mean:					4.00	5.39	5.91	7.30	

Table 4: Graduation (tax change for each step) as a function of aggregation frame

Masking Redistribution

Table 5: Mean responses and inferred responses for presence and absence of health care, education, and social security










No cuts		
Top	33.6%	
Middle	22.5%	
Bottom	11.4%	
Three cuts, raw responses		
Top	18.9%	
Middle	7.5%	
Bottom	-3.9%	
Three cuts, responses plus out-of-pocket cost		
Top	23.4%	
Middle	19.5%	
Bottom	26.1%	

Table 5 shows the mean response of subjects, using the same type of graph they

Starving the Beast

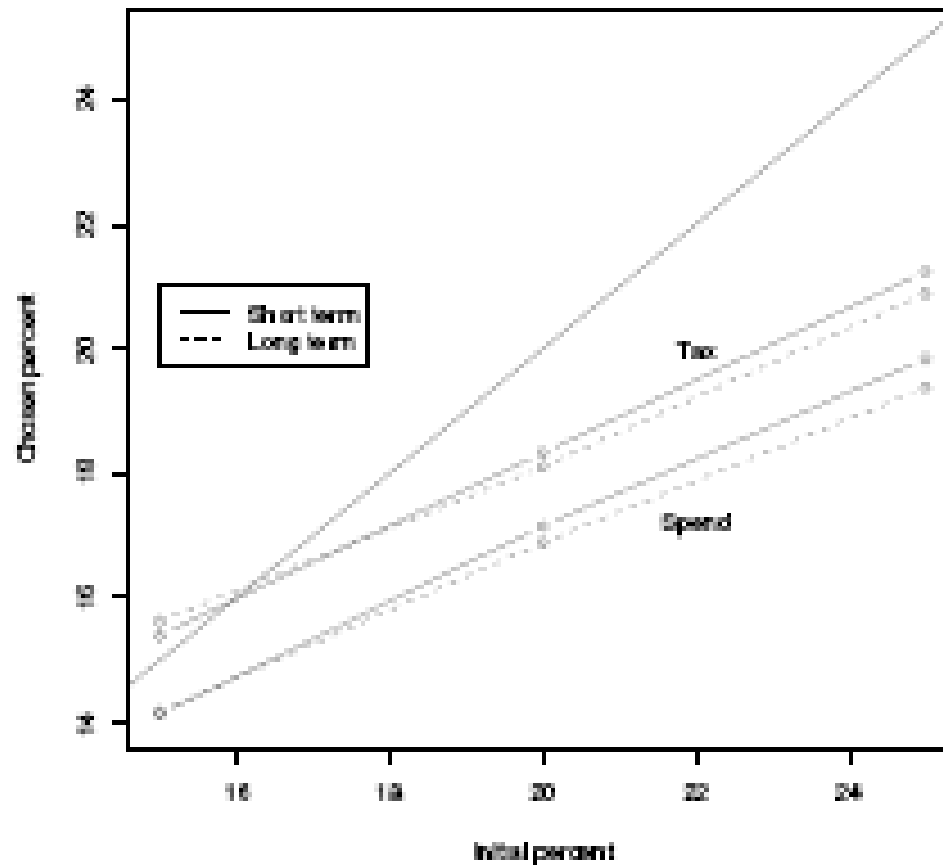


Figure 1: Preferred levels of taxation and spending, Experiment 1. (Diagonal line represents no change from starting point.)

Starving the Beast

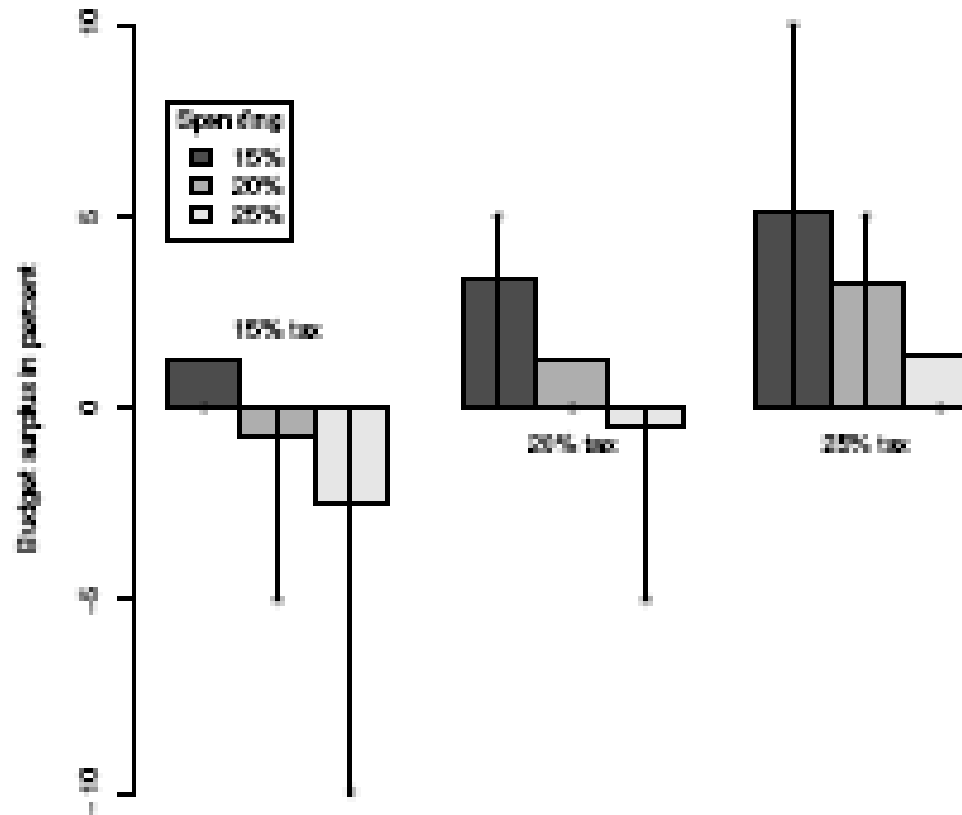


Figure 2: Budget surplus resulting from subjects' judgments as a function of initial level of taxation and spending. Lines represent starting points.

Starving the Beast

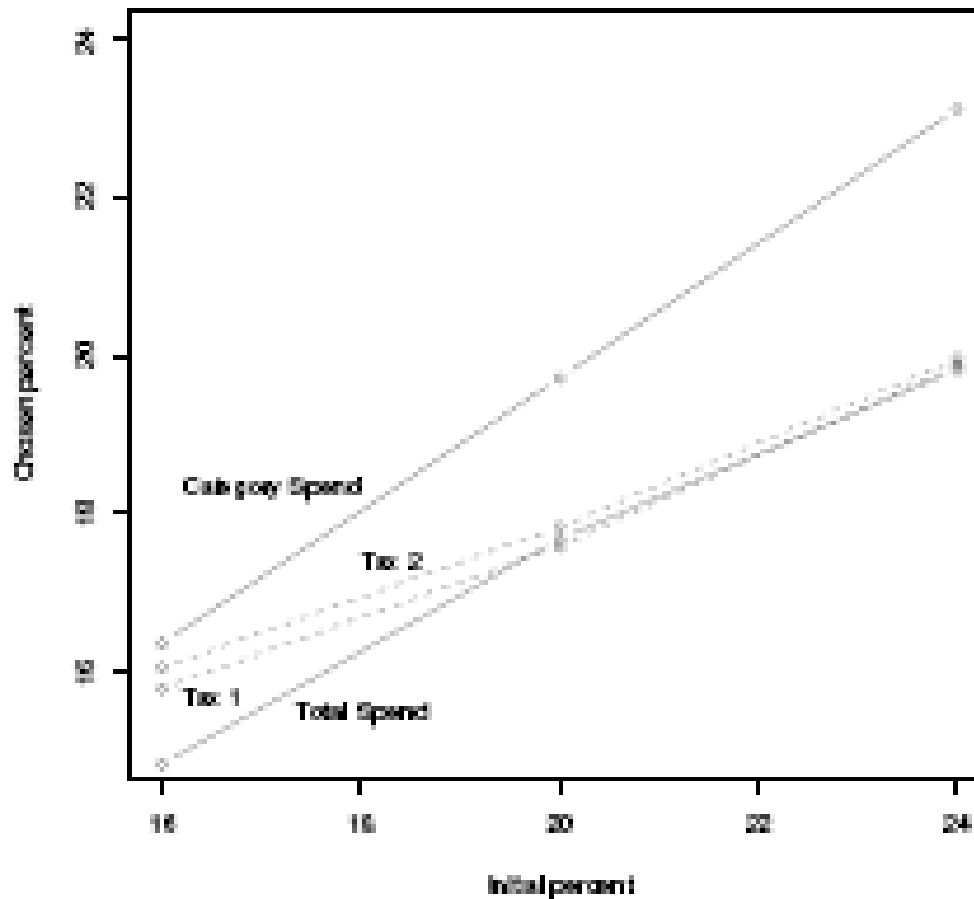


Figure 3: Levels of taxation and spending implied by judgments, Experiment 2. Taxation questions are dashed lines; Spending questions are solid lines.

Starving the Beast

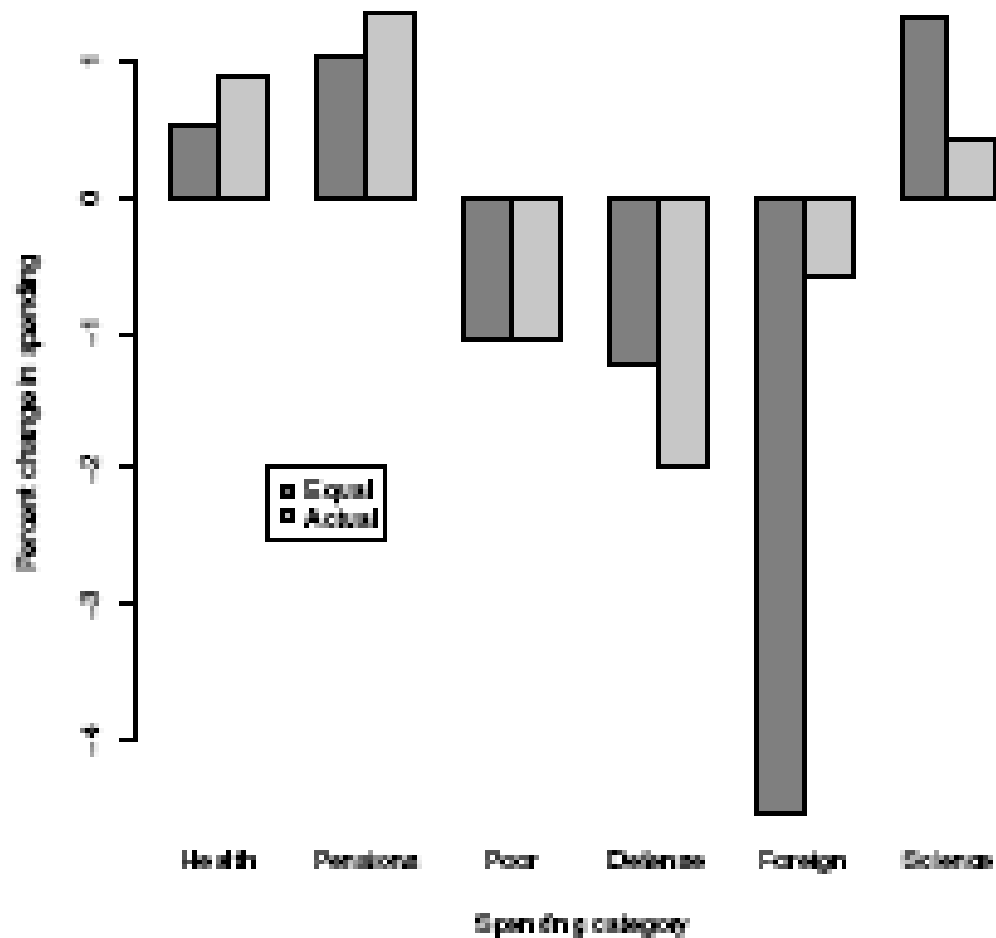


Figure 4: Category-spending changes, in percent of spending, calculated as if all categories were equal parts of the budget, or the actual percents given to the subjects

Starving the Beast

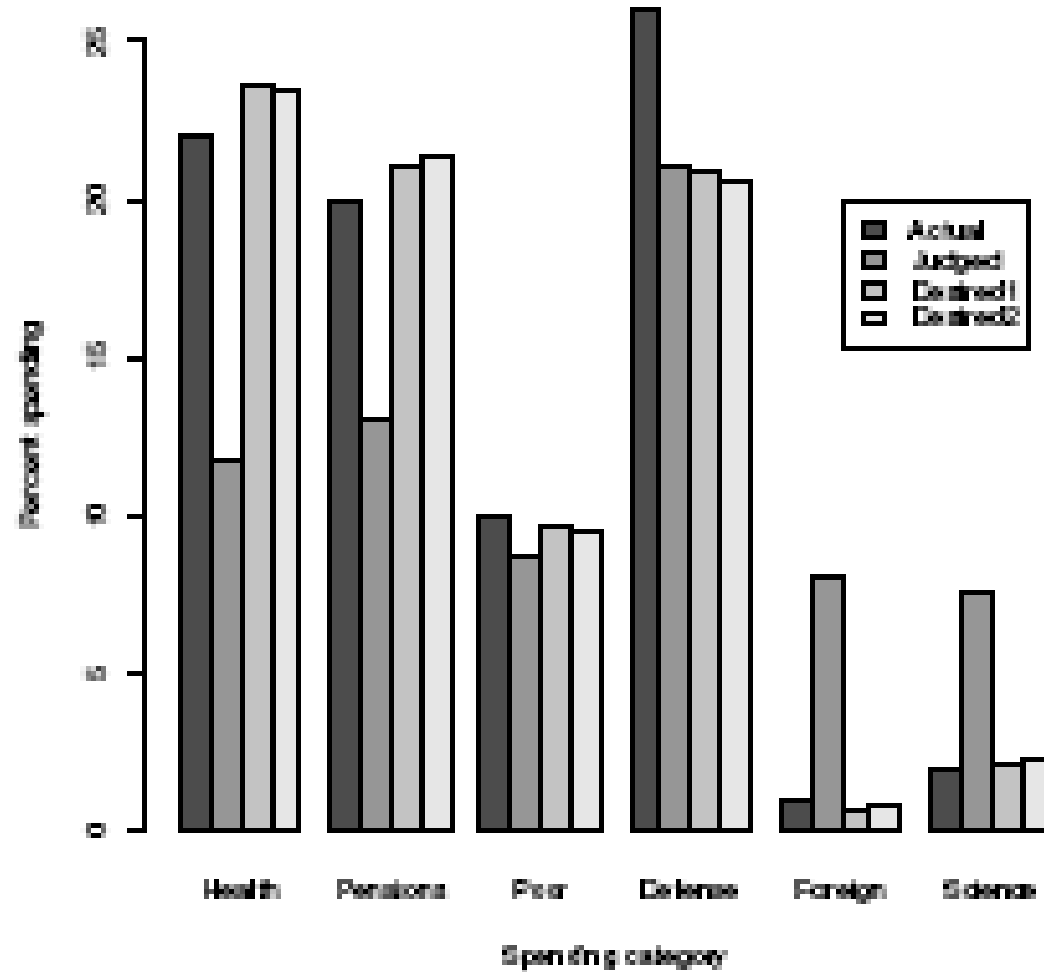


Figure 6 Allocations

Why it Matters

- Optimal Public Finance
 - Two welfare theorems
 - Allocation and distribution
 - Maximize social pie, then redistribute
 - See Kaplow and Shavell 2002

Why it Matters

- Three Problems
- One, Efficiency (wealth) may suffer
 - Politicians/taxpayers chose psychically pleasing but costly tax and spending programs
 - Wealth left on table as homage to cognitive illusions
 - Note, psychologically pleasing “hidden” taxes have real effects (rational analysis never irrelevant)
 - E.g., corporate tax as regressive wage/consumption tax

Why it Matters

- Two, Unnecessary equity-efficiency tradeoffs
 - Amount of redistribution depends on form of public finance
 - E.g., masking, privatization effects
 - Hence, liberals and progressives (pro redistribution) will favor waste

Why it Matters

- Three, Preference reversal brought about by agenda setting + isolation
 - Puzzle of why democracies don't redistribute
 - Starve the Beast
- Ordering:
 - Tax cut today (tax aversion)
 - Most salient taxes get cut
 - E.g., payroll tax never cut!
 - Creates deficits
 - Changes baseline and perspectives
 - Hence leads to spending cuts, curtailed growth

What is to be Done?

- De-isolate
 - E.g., PAYGO, balanced budget amendments
- Make tradeoffs salient
- Role for experts/independent agents?
- Introduce competition into public finance?
 - Privatize aspects of finance?
 - Pitch for progressive spending tax, forthcoming U. Chicago Press book (McCaffery forthcoming) (thanks, David Pervin), note on “illusion of ownership” and Kevin McCabe work
- Debias? Educate? Pray?
 - Role for religion among skeptics?

emccaffe@hss.caltech.edu

Sources

- Barberis, N. & Thaler, R. 2003. A survey of behavioral finance. In G. Constantinides, M. Harris, and R. Stultz (eds), *Handbook of the economics of finance* (pp. 1053-1123). North Holland, Amsterdam: Elsevier Science.
- Kaplow, L. & Shavell, S.M. 2002. *Fairness versus welfare*. Cambridge, MA: Harvard University Press.
- McCaffery, E.J. & Baron, J. Thinking about tax. 2006. Thinking about tax. *Psychology, public policy, and law*. 12:106-135. (or see SSRN version)
- McCaffery, E.J. & Slemrod, J. 2006. *Behavioral public finance*. New York: Russell Sage Press.