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On the Role of Emotions in Experimental Litigation Contests*

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Abstract

We present experimental evidence on the influence of emotions on litigation. Our experiment compares the impact of an intentional taking of points, resulting in an unfair outcome, to that of an exogenous taking. The intentional taking induces negative emotions (e.g., anger), but this emotional arousal does not influence litigant behavior in terms of either filing a case or spending litigation effort. Our observation is independent of litigation being a one-staged or a (possibly) two-staged contest (i.e., one with an an appeal).

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1 Introduction

Emotions are considered key drivers of decisions in litigation such as filing, settlement, and effort decisions. In support of this relationship, theoretical considerations (Huang and Wu 1992; Baumann and Friehe 2012), interviews with lawyers (Farnsworth 1999), field data from divorce cases (Farmer and Tiefenthaler 2001), and survey data (Robbenolt 2006) have been presented.

We use a laboratory experiment of a stylized litigation contest in order to identify the role of emotions for behavior in such a strategic setting more cleanly and, in contrast to the aforementioned literature, do not find an impact of emotions on the decision to file a case or how much litigation effort to invest in the litigation contest. In our experiment, negative emotions such as anger are induced in a treatment in which one subject can take points that another subject previously earned in a real-effort task. The litigation contest is an avenue to obtain the points back, but also to punish the other party for the antisocial act. We contrast behavior with data from a treatment in which the transfer was due to chance, mirroring the approach by Landeo and Spier (2009). Moreover, we consider a scenario in which plaintiffs can appeal their case after losing in the first instance in order to understand how this moderates the relationship of emotions and litigant behavior.

Experimental evidence supporting that emotions such as anger are very relevant for understanding retaliatory behavior such as punishment abounds (e.g., Bolle et al. 2014, Bosman and van Winden 2002, Galeotti 2015, Reuben and van Winden 2009, Xiao and Houser 2005, van Winden 2007). Our paper is also related to the few other papers using experimental economics to study decision-making in litigation (e.g., Block and Parker 2004, Coughlan and Plott 1997, Coursey and Stanley 1988, Croson and Mnookin 1997, McKee et al. 2007, Pecorino and Van Boening 2010).

2 Experiment Design and Implementation

Subjects started off by participating in a real-effort task with a performance threshold to earn the uniform endowment of 180 points.[1] Next, participants were matched into pairs of plaintiffs (Player B) and defendants (Player A) and learned their role.[2] In Stage 2, 100 points may be transferred from Player B to Player A. We use a $2x2$ between-subject design in which the unfair allocation may be due to the Player A's taking or due to chance (as in Landeo and Spier 2009). In the setting with exogenous taking, the taking probability stems from pretest results and was not communicated in order to retain comparability of the subjects' information across treatments. If points have been transferred, Player B can, in Stage 3, decide whether and how many points to invest in a stylized litigation contest that builds on the theoretical model in Friehe and Wohlschlegel (2017), where higher investment implies a higher probability to get back the transferred points. Player A's investment in the case where Player B decides to invest points is exogenously given based on the equilibrium level in Friehe and Wohlschlegel (2017). After Player B's litigation decision, 11 emotions are elicited. Depending on the treatment, the plaintiff may be able to appeal in Stage 4 after losing the litigation contest (see Table 1).

Against the background of the preceding literature, we anticipate that players will invest more effort and initiate the contest with a higher likelihood when Player A intentionally took points from Player B (e.g., Rabin 1993). The availability of an appeals stage may have a similar function as a cool-off period (e.g., Neo et al. 2013, Oechssler et al. 2015), because the final word is not spoken in the first litigation contest. We thus expect differences across one-staged and potentially two-staged litigation contests. We summarize predictions for risk-neutral players motivated only by monetary payoff consequences in Table 2. Both the expected payoff from initiating the contest and Player B's optimal litigation effort are not very responsive to the treatment difference regarding the

[1] Failing the task ends the experiment for both players in that pair who, in this case, only receive the show-up fee of 80 points.

[2] We used neutral language such as 'Player A and Player B' instead of 'defendant and plaintiff' throughout the experiment's instructions.

Table 1: Experiment Design with Endogenous (Exogenous) Taking

Stage	**No appeal**	**Plaintiff Can Appeal**
1	Real-effort task for 15 minutes to earn 180 points.	
	Task: Counting zeros on screens with a threshold of 4 correct screens (Abeler et al. 2011).	
2	Player A chooses whether or not to take 100 points from Player B	
(2)	(Move of chance determines taking where probability was determined in pretest)	
3	Player B chooses whether to invest $p_{Trial} \in [10, 30]$ to start contest. Game ends after no plaintiff investment.	
	Player A investment in any contest is fixed at 16 points to remove strategic uncertainty.	
	Elicitation of 11 emotions with Likert scales from 1 to 7 (Bosman and van Winden 2002).	
4	Trial court verdict. Player B wins 100 points back with probability $\pi_{Trial}(p_{Trial}) = (1 + 32/p_{Trial})^{-1}$.	
	Game ends	When Player B won contest: Game ends
		When Player B lost contest: Player B can appeal, otherwise game ends
		In appeal, both players' investments are fixed at 9 points.
		Player B wins 100 points back with probability $\pi_{Appeal} = 1/10$.
5		Appeals Verdict and end of game.
# of Subjects	102 (62)	60 (40)

availability of appeal.

Table 2: Predictions for Player B Maximizing Expected Payoffs

Variable	**No appeals**	**Player B Can Appeal**
Player B's trial effort	24.6	24.3
Player B's expected payoff from filing	18.86	19.43

The experiment was conducted between August and November 2017 at the University of Hamburg's economic laboratory, using z-Tree (Fischbacher, 2007) for programming and hroot (Bock et al., 2014) for organizing and administrating the experiment. On average, each session of the experiment lasted about 45 minutes (including payment), and the 204 participants earned a total of about 11 Euro on average.

3 Results

Manipulation Check We are interested in the role of emotions on litigation. We hypothesized that intentional taking makes people angrier than an exogenous transfer. Table 3 shows that the manipulation was successful: (i) Anger is higher after a transfer of points than without it conditional on being in the endogenous treatment and (ii) the difference in anger with and without a transfer of points is higher for the endogenous than for the exogenous treatment. We observe similar but weaker effects for related emotions.

Litigation Rates and Effort Levels Table 4 summarizes the data. The litigation rates are slightly higher if Player B can appeal (89.3%) compared to the scenario without appeal (77.1%), but this difference is statistically insignificant ($p = 0.242$, χ^2-test). Average effort conditional on having initiated the contest seems independent of whether or not appeal was possible. Both results were predicted by the theory (see Table 2). However, the average effort levels significantly exceed the point predictions of the theoretical model ($p < .01$, according to the Wilcoxon signed-rank test), and the cap on effort was binding for most Players B who had entered the contest (see Figure 1).

Responding to our research question, we explore differences in the average effort levels and litigation rates for each appeals regime under endogenous and exogenous taking. The

Table 3: The impact of taking on Player B's emotions.

Dep. Var.	Anger	Irritation	Sad	Joy
Transfer	-2.572***	-1.892***	-1.696**	-2.888***
	(0.709)	(0.683)	(0.691)	(0.698)
Exogenous	-1.026***	-0.995***	-0.730**	0.695**
	(0.350)	(0.344)	(0.343)	(.337)
Interaction	1.310***	0.830*	1.020**	-1.067**
(Transfer × Exogenous)	(0.447)	(0.436)	(0.444)	(.439)
Pseudo-R^2	.050	.054	.086	-0.102

N = 102 in all estimations; *** p < .01; ** p < .05; * p < .1. All models report results from ordered-probit estimations of the respective emotions. Emotions are measured on a scale from 1 (strong emotion) to 7 (no emotion).

Table 4: Summary Statistics.

Appeal	Player B can appeal		No appeal	
Transfer Treatment	endog.	exog.	endog.	exog.
Taking/Groups in treatment	14/30	14/20	26/51	22/31
	(46.7%)	(70.0%)	(51.0%)	(71.0%)
Contest started/Groups with taking	13/14	12/14	20/26	17/22
	(92.9%)	(85.7%)	(76.9%)	(77.3%)
Average effort	26.2	26.4	28.3	25.9

main result of our paper is that we do not find any significant difference in litigation or effort decisions between the endogenous and the exogenous treatment (all relevant p-values $> .5$).

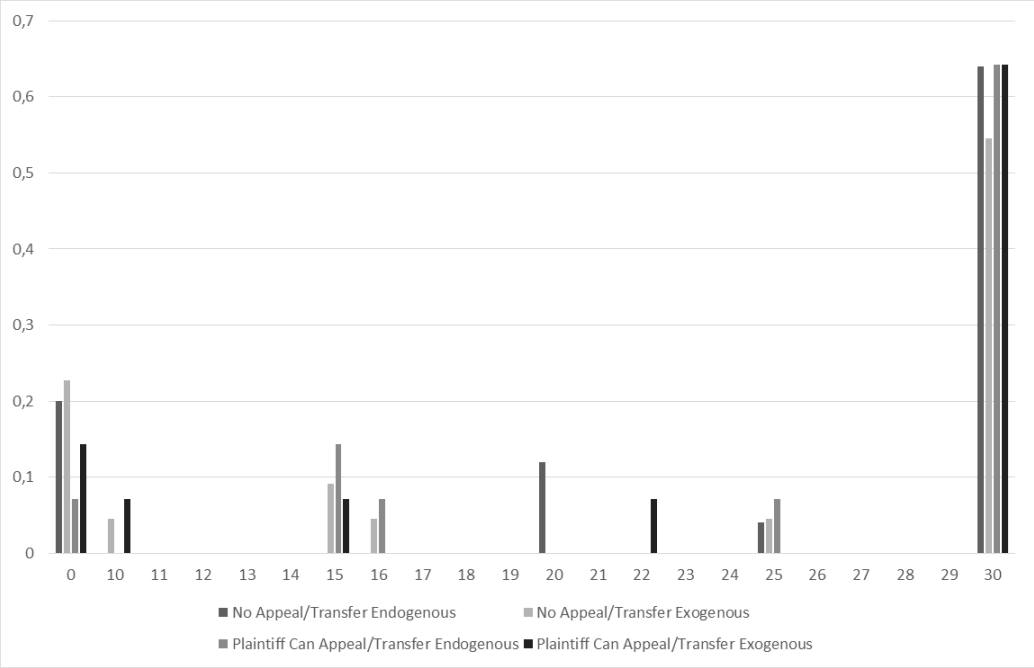

Figure 1: Levels of Player B's Litigation Effort.

4 Conclusions

We report results from an economic experiment on behavior in a potentially multi-staged litigation contest. Our focus was on the role of emotions for the plaintiff's choices of whether or not to bring the case and how much litigation effort to invest. Variation in emotions was introduced by distinguishing between two treatments in which the transfer of points was either intentional or random. While emotions are stirred up by the treatment variation, there are no differences in litigant choices. Our data indicate that the results from the experimental literature on emotions and punishment (e.g., Xiao and Houser 2005) do not carry over to such a less direct way of punishing antisocial behavior as litigating in our game.

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