Appeal Process and the Role of Judge

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Abstract

We examine the non-benevolent judge under the appeal process and a role of judge as a mediator between the ligation parties. As a member of the organization of court a judge has to avoid appeals if she purses their future career. We consider the effect of appeal process on the non-benevolent judge. We introduce the constraints with regard to "appeal proof" to analyze the judge who avoids appeal. We examine that the judge makes an effort to create the range by persuasion of the litigants when there is no range of appeal proof and consider that the judge has a role, which solves the problem that the litigants cannot by themselves seek the range and saves the social costs on appeals.

1 Introduction

We examine the non-benevolent judge under the appeal process and explore a role of judge as a mediator between the ligation parties.

In the most models of law and economics, judge tends to be described to be benevolent and maximize social welfare.[1] In reality, however, some of them make a decision depending on their own preference and consider the effects of their judgement on their future career. In this paper, judge is assumed to be non-benevolent or self-interested.

In addition, we assume that the court as a organization wants to avoid appeal. On one hand, the non-benevolent court may reduce the number of suits itself including appeals because suits are just burden for judges. On the other hand, the benevolent court might prevent appeals of the typical cases because of decreasing the social costs on suits. The court by nature, which is benevolent or not, is tend to avoid appeals as an organization. As a member of the organization

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[1]For example, in the standard litigation model, judge is likely to be assumed to be a "function" which inputs litigation efforts of parties and outputs judgement.

of court a judge has to avoid appeals if she purses their future career. We consider the effect of appeal process on the non-benevolent judge.

Recent studies include the non-benevolent judge and focus on the judge behavior by which the judge maximizes her payoff. Focus of these studies is not litigation parties' behaviors: the evolution of common law, Wittman (2000); consideration of judge reputation, Levy (2005); the effect of appeal process on the divergence of social welfare and individual preference, Shavell (2007). We follow these studies, especially Shavell (2007). He introduces the constraints with regard to "appeal proof" to analyze the judge who avoids appeal. In his model, there assumed to exist the range of appeal proof, which means that there is common judgement which both parties (plaintiff and defendant) can accept. We consider that the judge seeks acceptable judgement or the range of appeal proof when one of (or both) parties cannot accept the judgement ex ante. Through this consideration, we examine a role of judge.

This study is related to the literature of economics of litigation.[2] In the study, the "range of settlement" is well described as the scope of that the dispute parties can reach the settlement. So if there does not exist the range, then there is no possibility that the parties reach the settlement only by themselves. The range of appeal proof in our study is similar idea to that of settlement. We examine that the judge makes an effort to create the range by persuasion of the litigants when there is no range of appeal proof and consider that the judge has a role, which solves the problem that the litigants cannot by themselves seek the range and saves the social costs on appeals.

2 The model

There is one judge and the two litigant parties (plaintiff and defendant). The judge offers a judgment (damages) to the litigants. Both plaintiff and defendant bear disutility from the judgement. Let

$$
\begin{aligned}
d &= \text{judgement or damages,} \\
U_P(d) &= \text{plaintiff's disutility of } d \ (U_P^{'} < 0,\ U_P^{''} > 0\ ), \\
U_D(d) &= \text{defendant's disutility of } d \ (U_D^{'} > 0,\ U_D^{''} > 0).
\end{aligned}
$$

After a judgement, the litigants choose whether to go to the appeal court, based on the their each threshold level of disutility (or reservation utility). The judge chooses a level of effort that

[2]See Miceli (1997) for introduction of economics of litigation and settlement.

affect the litigants's threshold of disutility. This effort is interpreted as effort to persuade the litigants to accept d that she offers. The judge bears (physical and psychological) costs on both the effort and judgement. Let

$$
\begin{aligned}
e &= \text{judge's effort to persuade the litigants,} \\
\bar{U}(e) &= \text{threshold of disutility of litigants } (\bar{U}(0) \geq 0, \bar{U}'(e) > 0, \bar{U}''(e) > 0) \\
C(d, e : \hat{d}) &= \text{judge's costs of } d \text{ and } e \text{ given } \hat{d} \ (C_e > 0,\ C_{ee} > 0 \text{ and } C_d > 0, C_{dd} > 0), \\
&\quad \text{where } \hat{d} \text{ is the ideal damages of the judge.}
\end{aligned}
$$

We assume that given e $C(d, e)$ is quadratic function of d with minimum at $\hat{d}$. That is, the damages is more costly for the judge as the distance between d and $\hat{d}$ is greater.

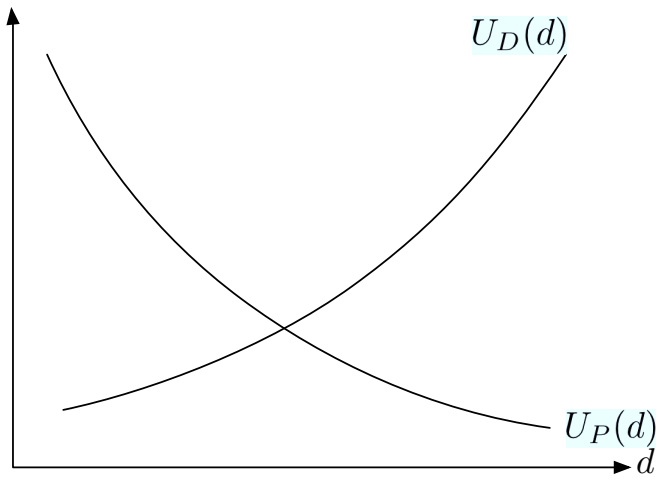


Figure 1: **Disutilities of the parties**

Since social litigation costs arise if a litigant easily goes to appeal court and appealing is just a pain for judge or the like, a main objective of the court (including appeal and lower courts) as an organization is assumed to resolve disputes and to prevent the litigants from appealing. This might be true at least for a typical case. In such an organization of court, the judge whose litigants appeal earns the reputation as that she is not able. This reputation is established not only when her judgement is disapproval in appeal court, but also when her judgement is accepted. Therefore, the judge who cares about her reputation needs to get the litigants to accept damages and needs to dissuade them from appealing. For the sake of appeal proof, the judge has to offer an agreeable damages, which prevents both litigants from going to the appeal court.

2.1 Appeal proof conditions

Each litigant (plaintiff and defendant) has a level of threshold that is acceptable for her or him if the disutility is smaller than that level, or a reservation utility $\bar{U}(e)$. That is, A litigant accepts the judgement and will not appeal if the level of disutility is less than her (or his) threshold:

$$U_P(d) \leq \bar{U}(e) \quad U_D(d) \leq \bar{U}(e) \tag{1}$$

We shall call these inequalities appeal proof conditions (APCs) and call such d in these inequalities as appeal proof damages (or judgements). We find such appeal proof d in Fig.2.

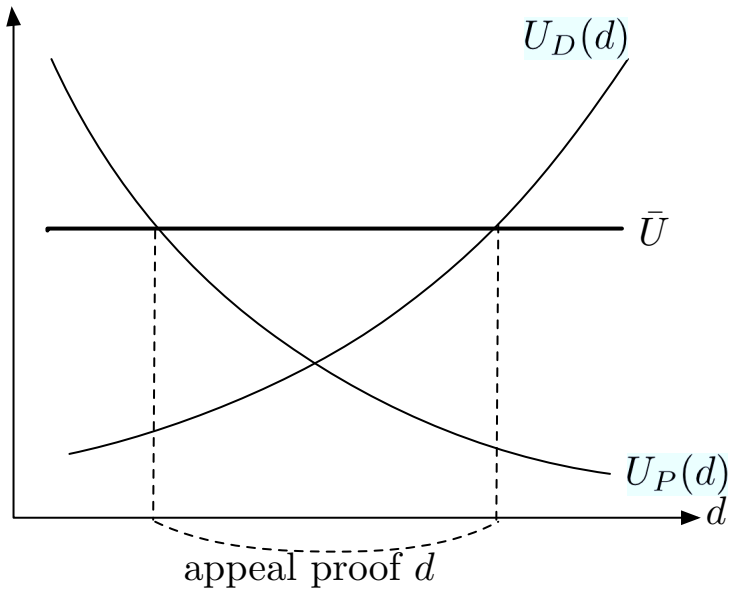


Figure 2: **Range of appeal proof** d

Unfortunately, there always does not exist appeal proof damages, such as in Fig.3. In this situation, any damages that the judge offers is unacceptable for either (or both) litigant(s), and defendant or plaintiff (or both) go to the appeal court. The judge makes efforts to persuade the litigants to accept damages she offers and this efforts result in raising the level of reservation utility: $\bar{U}'(e) > 0$. In other words, the judge can find the appeal proof damages d by raising the level of threshold. We can interpret the efforts e as ones for searching a acceptable damages for the litigants.

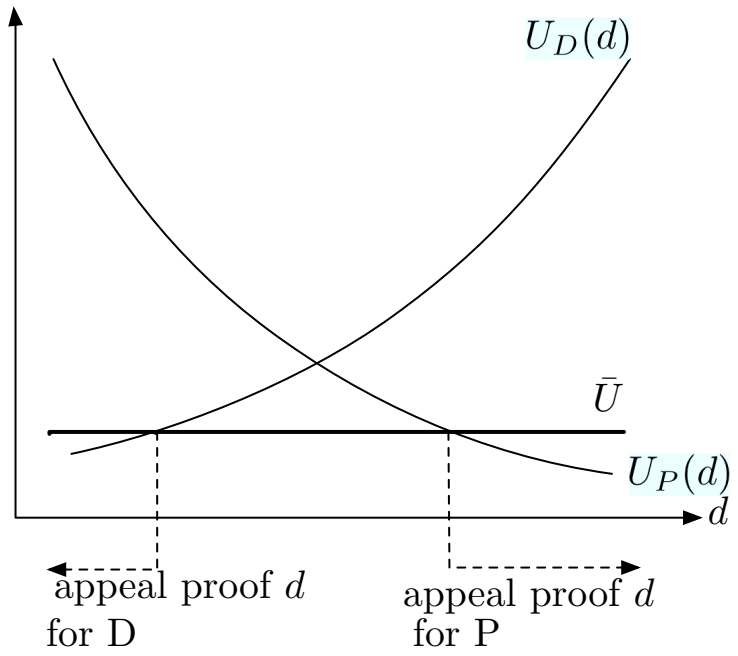


Figure 3: **Nonexistence of appeal proof d for both parties**

2.2 The judge's objective

Denoted by U summation of disutilities of the plaintiff and defendant (i.e., $U = U_P(d) + U_D(d)$). The judge cares about appeal proof conditions and chooses damages d and efforts e in order to minimize the parties's disutilities and her costs. That is, the judge's objective is to minimize the weighted average of the disutility and cost under the APCs:

$$\min_{d,e} W = \eta U(d) + (1-\eta)C(d,e) \tag{2}$$

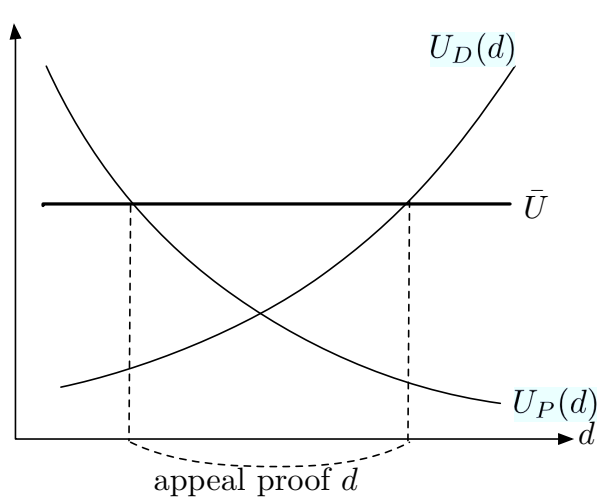
$$\text{subject to} \quad APCs. \tag{3}$$

Let us consider this problem of judge intuitively by using the figures. The following analysis classifies into four cases, depending on whether the constraint(s) is(are) binding or not.[3]

1) Both APCs are non-binding (i.e., $U_P < \bar{U}$ and $U_D < \bar{U}$)

The judge can optimize her objective without consideration of appeal proof conditions. She is not under pressure of appeal. So she need not make efforts of persuasion e in order to enlarge

[3]See also Appendix.



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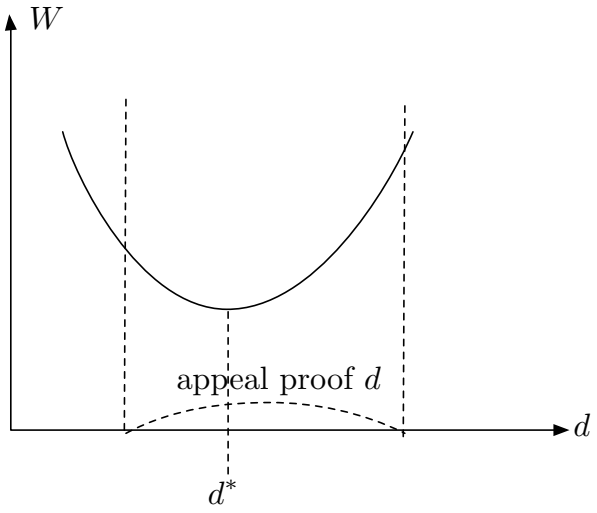


Figure 5:

the range of appeal proof. In this case, the judge has the freedom of decision on damages d^*. Therefore, in the equilibrium $(d^*, e^* = 0)$ occurs.

2) APC of P is binding and APC of D is non-binding (i.e., $U_P = \bar{U}$ and $U_D < \bar{U}$)

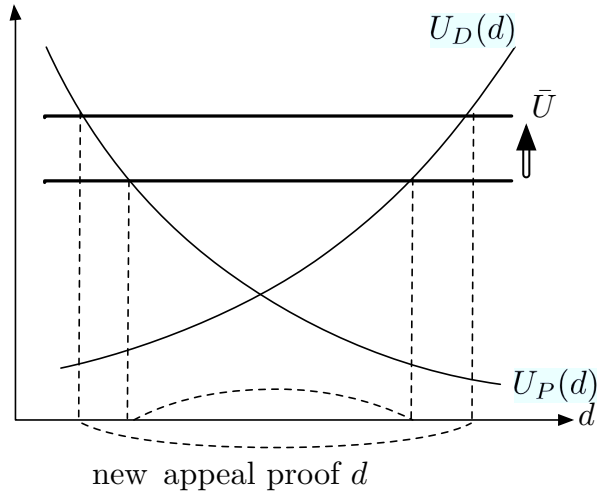
This case is likely to occur when the judge's preference is relatively pro-defendant. The judge can optimize her objective by persuasion of the plaintiff to accept the offered damages. She can be better off by enlarging the scope of appeal proof (See Fig. 6 and **??**). Thus, the judge makes positive efforts and offers damages that is acceptable for the plaintiff. In the equilibrium, d^* and e^* such that $U_P(d^*) = \bar{U}(e^*)$ occur.

3) APC of P is non-binding and APC of D is binding (i.e., $U_P < \bar{U}$ and $U_D = \bar{U}$)

This case is likely to occur when the judge's preference is relatively pro-plaintiff. The judge can optimize her objective by persuasion of the defendant to accept the offered damages. Thus, the judge makes positive efforts and offers damages that is acceptable for the defendant as well as the plaintiff. In the equilibrium, d^* and e^* such that $U_P(d^*) = \bar{U}(e^*)$ occur.

4) Both APCs are binding (i.e., $U_P = \bar{U}$ and $U_D = \bar{U}$)

This case indicates that both parties' reservation disutility $\bar{U}$ is low. This means that both parties are not reluctant to go to the appeal court. The judge has to make persuasive efforts for appeal proof. In this case, d^* and e^* such that $U_P(d^*) = U_D(d^*) = \bar{U}(e^*)$ occurs in the equilibrium.



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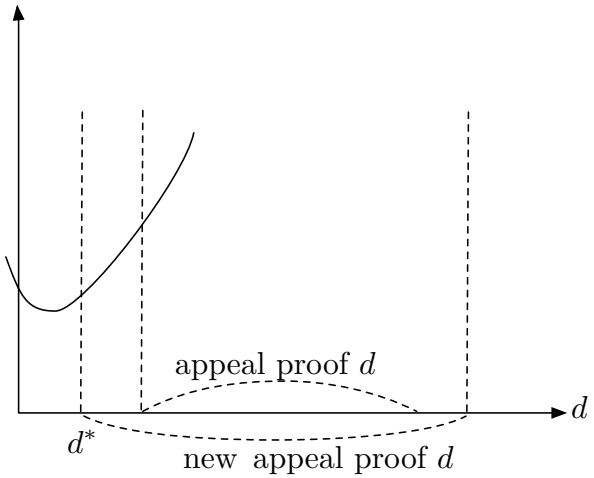

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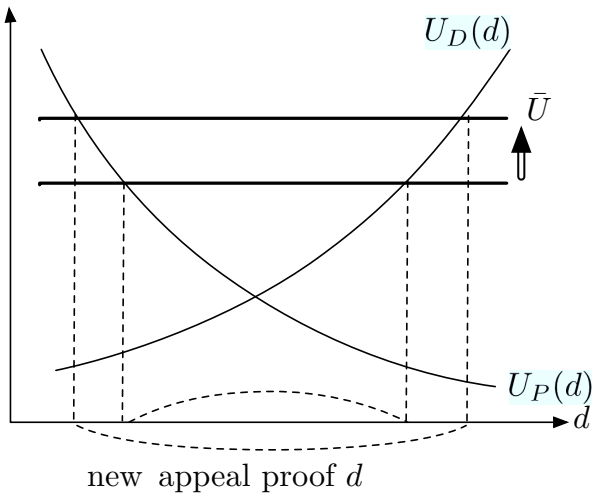

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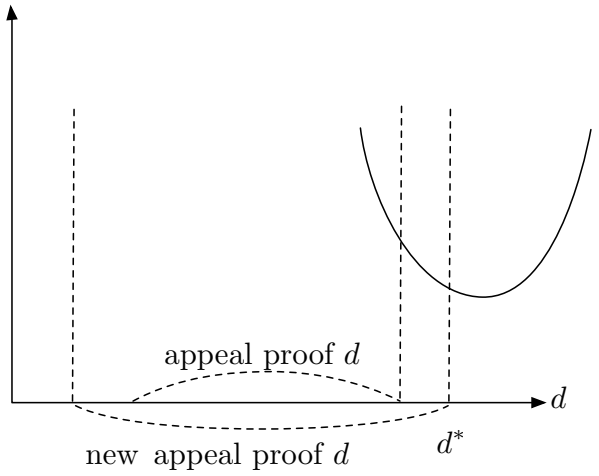

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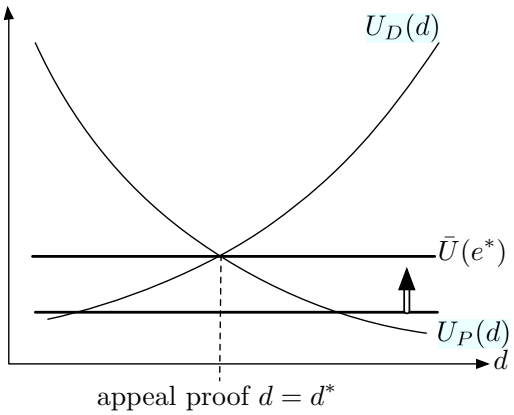

Figure 10:

Note that the judge has no freedom to decide (d, e). The judge just makes efforts to persuade both parties until she finds acceptable damages for both parties. Given the efforts of persuasion, the judge just sets such appeal proof damages, rather than optimizes her objective. If the judge makes no efforts, there does not exist the range of appeal proof and any damages the judge offers is unacceptable for both parties. Therefore, by such persuasion the judge creates the range of appeal proof and prevents both parties from appealing.

In the literature of 'litigation and settlement,' if there does not exist the scope of 'settlement,' both parties do not compromise and cannot help bringing the suit. The scope of appeal proof in our study is a similar idea to that of settlement. There is no choice but brtinging suits under nonexistence of the range of settlement. On the contrary, when there does not exist the range of appeal proof, the judge can seek out the acceptable damages by persuasion of the parties. Though this function to persuade parties is from self-interest of judge, from the point of view of social costs, it helps to save the costs. We can say that this is the role of judge.

3 Concluding remarks

This paper considers non-benevolent judge and explores a role of judge. Under the appeal court system, the judge cares about her reputation and prevents the litigants from going to appeal court. We focus on the judgement that prevent the litigants from appealing, that is, the appeal proof judgement. Allowing for the range of appeal proof to both litigants, the judge needs to offer a judgement. Through the consideration of such judges, we explore a role of judge. When the plaintiff and defendant are optimistic, there might not be the range of appeal proof. Under such

a situation, the judge makes efforts to legally persuade the litigants to accept the judgement she offers and from appealing. Although this is from self-interest of the judge rather than from social interest, this might contribute to saving social costs on litigation.

Appendix

The Lagrangian is defined as

$$L = \eta\left(U_P(d) + U_D(d)\right) + (1-\eta)C(d,e) + \lambda_1(U_P(d) - \bar{U}(e)) + \lambda_2(U_D(d) - \bar{U}(e)). \tag{4}$$

The Kuhn-Tucker conditions reduce to

$$\frac{\partial L}{\partial d} = \eta\left(U_P'(d) + U_D'(d)\right) + (1-\eta)C_d(d,e) + \lambda_1(U_P'(d)) + \lambda_2(U_D'(d)) = 0 \tag{5}$$

$$\frac{\partial L}{\partial e} = (1-\eta)C_e(d,e) + \lambda_1(\bar{U}'(e)) + \lambda_2(\bar{U}'(e)) = 0 \tag{6}$$

$$\lambda_1 \geq 0 \quad \text{with} \quad \lambda_1 = 0 \quad \text{if} \quad \bar{U}(e) - U_P(d) \geq 0 \tag{7}$$

$$\lambda_2 \geq 0 \quad \text{with} \quad \lambda_2 = 0 \quad \text{if} \quad \bar{U}(e) - U_D(d) \geq 0 \tag{8}$$

1) Both APCs are non-binding (i.e., $U_P < \bar{U}$ and $U_D < \bar{U}$)

Conditions (7) and (8) yield $\lambda_1 = \lambda_2 = 0$. Then from (6) we have $(1-\theta)C_e(d,e) = 0$, which gives $e^* = 0$ under the assumption of $C_e(d,0) = 0$ for any d. From (5) we have $d^* > 0$ such that $\eta\left(U_P'(d) + U_D'(d)\right) + (1-\eta)C_d(d,0) = 0$.

2) APC of P is binding and APC of D is non-binding (i.e., $U_P = \bar{U}$ and $U_D < \bar{U}$)

Conditions (7) and (8) yield $\lambda_1 > 0$ and $\lambda_2 = 0$. Then (6) yields $\lambda_1 = \frac{(1-\eta)C_e(d,e)}{\bar{U}'(e)}$. Inserted into (5) and (7) give $d^* > 0$ and $e^* \geq 0$, which satisfy $U_P(d^*) = \bar{U}(e^*)$.

3) APC of P is non-binding and APC of D is binding (i.e., $U_P < \bar{U}$ and $U_D = \bar{U}$)

Conditions (7) and (8) yield $\lambda_1 = 0$ and $\lambda_2 > 0$. Then (6) yields $\lambda_2 = \frac{(1-\eta)C_e(d,e)}{\bar{U}'(e)}$. Inserted into (5) and (7) give $d^* > 0$ and $e^* \geq 0$, which satisfy $U_D(d^*) = \bar{U}(e^*)$.

4) Both APCs are binding (i.e., $U_P = \bar{U}$ and $U_D = \bar{U}$)

Conditions (7) and (8) yield $\lambda_1 > 0$ and $\lambda_2 > 0$, which give $d^* > 0$ and $e^* \geq 0$ such that $\bar{U}(e^*) = U_P(d^*) = U_D(d^*)$.

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