



How unpleasant a result? A reply to Derek J. Clark

J. ATSU AMEGASHIE

Department of Economics, Simon Fraser University, Burnaby, BC, Canada V5A 1S6

Accepted 4 November 1999

In a recent article in this journal (Amegashie, *Public Choice* 99: 57–62), I showed that, contrary to the standard result in the rent-seeking literature, an increase in the number of rent-seekers could lead to a fall in aggregate rent-seeking expenditures. Clark (see pages 365–367, this issue) questions this result. First, he argues that my definition of the amount of aggregate rent-seeking expenditures is wrong and secondly, he claims that my model is based on a promise by the rent-giver that is not credible.

In my model, n lobbyists seek to maximize

$$\pi_i = K_i[V_{\min} + bK_i]/(K_i + \sum_{i \neq j} K_j) - K_i$$

where K_i is the rent-seeking expenditure of the i -th lobbyist, V_{\min} is a fixed rent, and bK_i is the part of the rent which is an increasing function of K_i . The total rent awarded to the winner is then $R = V_{\min} + bK_i$. In the symmetric Nash equilibrium, we get

$$K^* = (n - 1)V_{\min}/[n^2 + (1 - 2n)b].$$

given $0 \leq b \leq 1$. Aggregate rent-seeking expenditures equal $T^* = nK^*$, where $\partial T^*/\partial n < 0$ if $b > b_{\min} \equiv n^2/(2n^2 - 2n + 1)$. This is my “unpleasant result”. In my model, rent-seeking expenditures are *not* transfers (bribes) to the rent-giver. They involve the use of real resources (lobbying time, paper work by applicants, hiring lawyers, preparing for interviews, etc.) which do not enter into the rent-giver’s utility function. Given that most job positions quote a minimum and maximum salary, I believe that my model fits perfectly with contests for job positions where the winner is guaranteed a minimum salary but this could be increased depending on the winner’s lobbying expenditure. Other examples were given in Amegashie (1999). Indeed, Konrad and Schlesinger (1997) analyze a similar game, which they refer to as a “rent-augmenting” game. They (1997: 1672–1673) write: “In addition to the types of rent-seeking expenditures . . . where players pay to improve their odds of receiving a fixed rent, we also consider resource expenditures to increase the size of the rent itself. For example, in addition to lobbying for a particular

government contract, competing suppliers might also lobby that the size of the contract should be larger, thus making the rent larger for whoever receives it”.

Clark claims that the correct amount of rent-seeking expenditures is not T^* but rather $NRS = T^* - bK^*$ (i.e., net rent-seeking expenditures). Since $\partial NRS/\partial n > 0$ for $0 \leq b < 1$, Clark concludes that the “unpleasant result” disappears. He argues that bK^* should be netted out of T^* because there is no deadweight loss in the payment of bK^* . He writes, “. . . there may be grounds to question how much rent-seeking has actually taken place, given that the winning contestant instantly recoups . . . part of his expenditure”. Note that the part of the rent, which depends on the winner’s rent-seeking expenditures, could be represented by any increasing function, $f(K_i)$. For analytical tractability, I chose $f(K_i) = bK_i$. This linear specification may lead one to interpret $f(K_i)$ – as Clark does – as the proportion of the winner’s expenditure that is recouped or “refunded”. For the sake of exposition, this interpretation may be helpful but it misses the point of Amegashie (1999). *The important point is that $f(K_i)$ is a rent* (determined by the winner’s rent-seeking expenditures). Besides, bK^* need not be a direct cash payment. It may be the monetary equivalent of the extension of the duration of a monopoly franchise. Clearly, there would be Harberger deadweight costs associated with this extension. In Amegashie (1999), I showed that the Harberger deadweight loss, D , is decreasing in n , if part of the rent is an increasing function of lobbying expenditures. In this case, Clark’s NRS should be modified to get $NRS' = NRS + D$. It follows that even if $\partial NRS/\partial n > 0$, we could get $\partial NRS'/\partial n < 0$, given that $\partial D/\partial n < 0$.

Even if bK^* is a direct cash transfer from the rent-giver to the winner, all the contestants have to lobby to get it. This involves the use of real resources that do not enter directly into anyone’s utility function. The payment of bK^* does *not* recoup any of these deadweight costs from a social point of view, since these resources have already been used. For example, the valuable time used by lawyers in the lobbying process cannot be recouped!

In any case, does a smaller NRS necessarily imply a higher social welfare? Suppose that $\partial T^*/\partial n < 0$. Then $\partial NRS/\partial n > 0$ because of a sufficiently large value of $\partial(bK^*)/\partial n > 0$. That is, a decrease in n results in an increase in aggregate rent-seeking expenditures but this is socially desirable because the total rent awarded, $R^* = V_{\min} + bK^*$, increases by a bigger amount. Why is this a good thing? The increase in the rent awarded may be associated with a larger Harberger deadweight loss. In the case of job positions, this would mean that a bigger salary is paid to the successful applicant. It is not clear why this is socially desirable unless one assumed that the funds required to finance this salary increase have a higher social value when given to the

successful applicant than when they are used for some public purpose. Being a transfer, bK^* (or R^*) should cancel out in any social welfare calculation and hence should not be used in such a calculation unless the contestants are non-identical, in which case they may have different valuations of the prize as in Hurley (1998). Even in this case, it is not the size of the rent *per se* which matters but rather the valuation of the winner, since Hurley's criterion values the expected winner of the contest. In my model with *identical* contestants, the valuation of the winner does not matter and therefore, aggregate rent-seeking expenditures, T^* , and where necessary the Harberger deadweight loss, D , should be the relevant social welfare criteria.

Clark sees the lobbying expenditures as bribes. Indeed, *my results do not hold if the expenditures are bribes*. However, this observation also applies to the Tullock model, since one cannot establish a relationship between the number of (identical) rent-seekers and aggregate rent-seeking expenditures, if the expenditures are bribes. This is because in that case, it is hard to understand why the rent-giver will design the contest as a Tullock game. For example, an all-pay auction or a simple design as in Glazer (1993: Section 3) gives the rent-giver a higher income since rent-seeking expenditures equal the value of the rent, *regardless of the number of rent-seekers*.

Even if rent-seeking expenditures in my model are bribes, I do not agree with Clark that it necessarily involves a promise by the rent-giver that is not credible. He argues that "the best strategy for a truly rational contest administrator would be to set $b = 1$ and promise to refund all of the winners expenditure, but to renege *ex post*, after the expenditures are made. This could potentially achieve a net contest income of $V_{\min} + K^*$ ". Note that it is optimal for the rent-giver to renege on the payment of K^* , if it is costly to pay this amount. But this may not always be the case. Imagine a bureaucrat, who has to return any unspent budget allocated to his department to a higher authority. If he has to account to this higher authority for every dollar spent, he may find it convenient to appropriate part of his department's budget by designing a rent-seeking contest, say for firms competing for a contract from his department. Paying K^* *may* not be costly in this case, since any unspent amount has to be returned anyway. Furthermore, as noted above, K^* need not be a direct cash payment; it may be the monetary equivalent of the extension of the duration of a monopoly franchise. Granting this extension *may* not be costly to the rent-giver. If he has a rent of size, V , to award, he maximizes his income by setting $V_{\min} = (n - 1)V/n$ and $b = 1$, since his income, $T^* = V = V_{\min} + K^*$.

I do not want to claim too much for this "unpleasant result". I am inclined to think that it is the exception rather than the rule. The main contribution of Amegashie (1999) is to point out that the direction of the relationship between

aggregate expenditures and the number of rent-seekers depends on whether lobbying expenditures influence part or all of the rent awarded.

Although I disagree with Derek Clark, I think that his critique of my work is helpful because it has offered me the opportunity to identify and clarify some issues which may otherwise be confusing or which were not adequately discussed.

References

- Amegashie, J.A. (1999). The number of rent-seekers and aggregate rent-seeking expenditures: An unpleasant result. *Public Choice* 99: 57–62.
- Clark, D.J. (1999). How unpleasant a result?: A comment on Amegashie. *Public Choice* 102: 365–367.
- Glazer, A. (1993). On the incentives to establish and play political rent-seeking games. *Public Choice* 75: 139–148.
- Hurley, T.M. (1998). Rent dissipation and efficiency in a contest with asymmetric valuations. *Public Choice* 94: 289–298.
- Konrad, K.A. and Schlesinger, H. (1997). Risk aversion in rent-seeking and rent-augmenting games. *Economic Journal* 107: 1671–1683.