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EXTREMISM, SUICIDE TERROR, AND AUTHORITARISM

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Extremism, suicide terror, and authoritarianism

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Abstract.

This paper studies extremist behaviour, and its connection to authoritarianism. I divide extremists into two groups, leaders, who demand extremist acts such as assassinations, suicide terror or other forms of political violence from followers, who supply them. I assume that both the leaders of extremist groups and their followers are rational. The paper looks at three examples: Communism, Nationalism and Islamic Fundamentalism. I show that leaders with extreme ideologies also tend to adopt violent methods when there is an indivisibility between the intermediate goal of the group and its ultimate goal. Turning to followers, the most important innovation of the paper is a simple model which explains how it is possible for a person to rationally commit suicide to further the goals of a group.

The most important policy implications of the paper are, firstly, that one should look at the goals of extremist group in order to understand their actions. If one can unbundle the goal or make the indivisible divisible, then there may be ways to provide these goals in a way which satisfies some of the potential supporters of the group and thus dries up support for the grander ambitions of the leaders of extremist groups. Secondly, the provision of programs which foster social cohesion tends to dry up an important motive for extremist activity: the desire for solidarity. Thirdly, policy towards terrorists should combine the use of “carrot” and “stick”. Finally, I argue that authoritarian regimes rather than democracies or totalitarian regimes are the most likely sources of suicide terror. So democracy is indeed part of the solution to the problem of suicide terrorism.

Keywords: Terrorism; extremist ideologies; extremist groups; authoritarian regimes; suicide terrorists;

Acknowledgements

Many of the arguments of this paper are made in greater detail in my book, *Rational Extremism: The Political Economy of Radicalism* (Cambridge University Press, forthcoming). This paper in particular has been improved by the comments of Morris Coats, Joel Fried, Charles Rowley, and the participants at the conference on terrorism at George Mason.

1. Introduction

I assume that extremists are rational. Their goals may be different than those of most of us, but from an economist's point of view, rationality just means that, whatever the goal, a person chooses the best means to achieve it. The goals themselves are neither rational nor irrational, we just take them as given. The simplest way to think of an extremist is someone whose goals or views are outside the mainstream on some issue or dimension. In the 20th Century, extremists were typically persons on the extreme right or the extreme left. But people can also be extreme on other dimensions as well, such as nationalism, religion, or security.

However, there is another way to think of extremism in politics, in which extremism refers to the use of extreme methods of political competition, usually violent ones, such as assassinations or terrorism. Often (not always) those with extremist beliefs also adopt extremist methods. What explains the attraction of violence to people with extreme goals? I argue that leaders whose views are outside the mainstream adopt extremist methods when there is an *indivisibility* between what might be called the immediate goal of the group and its ultimate goal. I look at three examples: Communism (control over the means of production is an intermediate goal to the achievement of a communist society), Nationalism (control over territory is an intermediate goal to the achievement of nationhood) and Islamic Fundamentalism (ridding the Muslim nations of foreign and secular influences is an intermediate goal to the achievement of an Islamic society). In turn, conflict between each of these and opposing groups (respectively, capitalism, other groups with the same territorial ambition, secularism), is, in a sense, inevitable as it results from the conflict between their ultimate goals.

The second part of the paper turns to the supply side – the behaviour of followers. One of the most striking facts about the tragedy of September 11 is that the perpetrators were willing to die for their cause. It is this apparent readiness to sacrifice oneself, perhaps more than any other fact, which makes the threat of suicide terrorism so large and so incomprehensible. Perhaps more than anything else, this marks off “them” from “us” as most of us cannot imagine ourselves committing any such act. I argue that it

is possible to explain such acts in rational choice terms, and that, while such acts are indeed extreme, they are merely an extreme example of a general class of behavior in which all of us engage.

However, the behaviour of followers cannot be explained in the same way as that of leaders. The reason is that the goals of the organization are a pure public good to a follower. Consequently a rational follower would tend to “free ride”, no matter how much he believes in the goal of the group. To explain the participation of followers, one must turn to something else. In this paper, I suggest that they are motivated by the desire for “solidarity” (or social cohesion or “belonging-ness”) with a group.

Solidarity denotes “unity” or “oneness of purpose”.¹ The more solidarity there is among the members of a group, the more they are capable of cooperating as a group towards some common goal.² The desire for group identification seems to be a fundamental characteristic of human beings.³ This preference has been demonstrated in very simple experiments, such as the one where people were sorted by their teacher into groups with brown eyes and those with blue eyes, and the individuals within each group immediately began distinguishing between “insiders and outsiders”, based on eye colour.⁴ The nature of the group identified with appears to be subject to wide variation. A wide variety of groups with which individuals identify can be listed, including the family, youth gangs, cults, business firms, unions, religions, political parties, sporting clubs, ethnicity and the nation state.⁵

I analyse the production of solidarity as a trade involving beliefs or values – the individual adopts the beliefs sanctioned by the group and receives the benefit of social cohesion in exchange. I construct a simple formal model to illustrate this process, and then develop the conditions under which rational suicide for a cause is possible. I integrate this model with the model of leaders, and develop some simple policy

¹ “What did the Dali Lama say to the hot dog vendor? Make me ONE with Everything” (joke told by Anthony Downs in his Presidential Address to the Public Choice Society).

² A formal proof of this proposition can be found in Wintrobe (1998), chapter 11.

³ Brown (1991).

⁴ See Huddie (2003) who reviews these experiments and subsequent work.

⁵ I have suggested elsewhere (Wintrobe (forthcoming)) that incorporating the desire for solidarity into preferences makes it possible to understand many otherwise puzzling phenomena (such as the microfinance revolution, nationalism, and revolution) in addition to participation in extremist movements.

implications.

Finally, the paper also looks at the connection between extremist groups – both leaders and followers – and authoritarianism. Does authoritarianism within the group make it more likely that the group will be extreme? And what type of regime – democracy, totalitarian dictatorship, or authoritarianism – fosters extremist groups?

To summarize, the outline of the paper is as follows. The next section looks at why leaders with extremist ideologies are attracted to extreme methods. Section 3 then turns to the behaviour of followers. I outline the process in which beliefs are traded for solidarity, and indicate why a solution at or near the corner indicates a willingness to sacrifice oneself for the group. Section 4 combines the models of sections 2 and 3, and develops some policy implications. Section 5 looks at various alternative organizational “technologies” for producing solidarity and then considers the structure of Al Qaeda in particular. I then show why groups like Al Qaeda tend to flourish more under authoritarian regimes than democracies or totalitarian dictatorships. Section 6 concludes the paper.

2. Extremist leaders

2.1 *Extremist methods are risky*

Suppose that extremist methods like terrorism are simply a form of political competition or rent seeking. If so, then the central point about extremist methods compared to normal democratic methods of political competition or rent seeking is that they are risky.

Because they are violent and illegal, they can provoke a reaction either from the state or from the opposition, and they are therefore more likely to involve greater losses than conventional politics. Consequently the choice between extremist methods and moderation can be analyzed in the same way as the choice between a criminal career and a legitimate one, as in models of the decision to commit crimes pioneered by Becker (1968). This point is explored in the model that follows.⁶ I will show that under certain

⁶ (Landes (1978) and Sandler and Lapan (1988) have also exploited this analogy, though in different ways from that followed here.)

circumstances the use of extremist means (e.g., terrorism, violence) follows from the goals of the group. Thus it is no accident that the most radical extremists often use terrorist methods. The main conclusion is that one has to understand the goals of the groups in order to understand their actions and to formulate policy towards them.

2.2 *A basic model of the calculus of discontent*

I assume a political organization with some ideological goal Z , which might be a state for a group which lacks a homeland, a communist society, a law banning abortions, an Islamic society governed by *sharia law* or a racially “pure” society. I do not inquire into the rationality of the belief in this goal but take it as given, as is normal in economic theory. The group tries to further this goal by exerting political pressure. So the product of either moderate pressure or terrorism is an increase in Z . Of particular importance, as emphasized previously, is that this goal is often indivisible, or displays increasing returns. This property is illustrated in Figure 1a, 1b and 1c, where the horizontal axis indicates the level of an intermediate goal – land to the Palestinians or Jews, government control over the means of production, the extent to which foreign forces are thrown out of the homeland, etc. – and the vertical axis the relationship between this intermediate goal and the final goal of the group (respectively, a Palestinian (or Jewish) state, a communist society, or an Islamic society). This is the relationship that displays an indivisibility or increasing returns.⁷ In each case there is a critical point, where enough of the intermediate goal has been obtained that the final goal within reach.

⁷ In turn, the indivisibility or zone of increasing returns arises because the intermediate goal can be likened to a missing “factor or production” in the production function of the ultimate goals. See Wintrobe (forthcoming) for details.

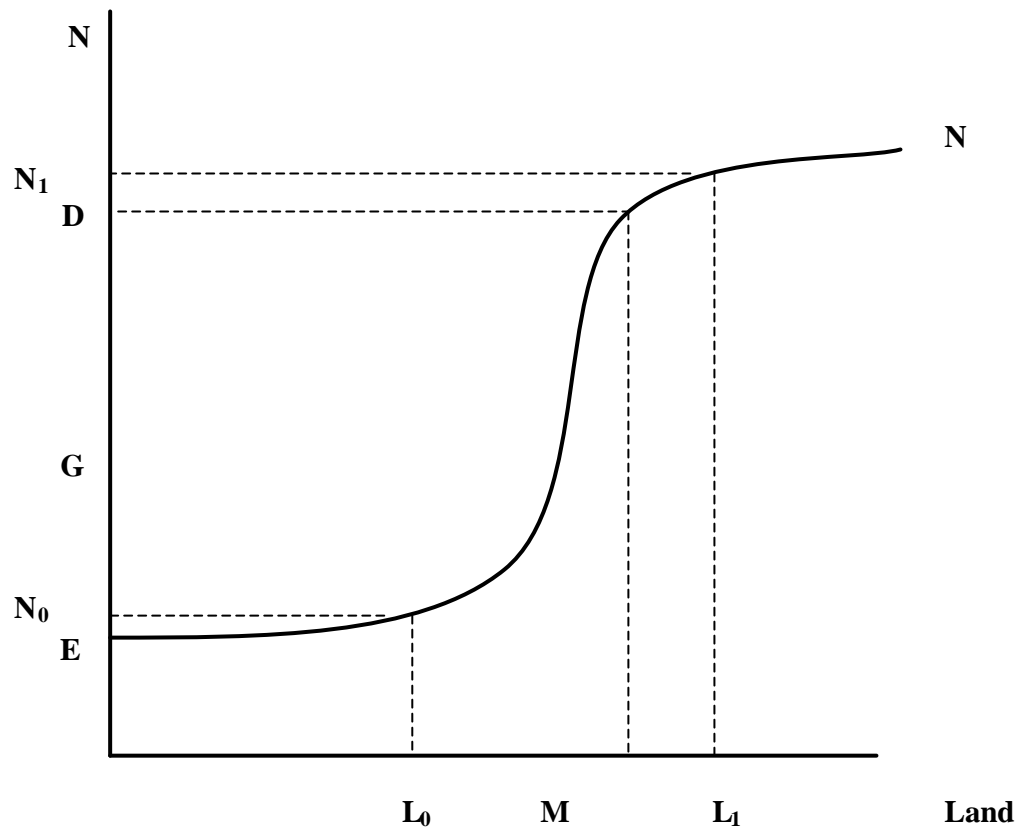


Figure 1a
Increasing returns in Palestine – Israel

N = nationhood

E = even with no land, the Palestinians are “conscious” of nationhood.

D = critical point (where increasing returns region ends), as (some) Palestinians feel that this is the minimum they need to form a nation. (Some) Israelis feel that if they give them that much THEY won’t have enough land to constitute a state because their borders will be insecure. So D could be the critical point for these two groups.

G = area where more land is still insufficient to provide enough space to enable the group to fully become a nation

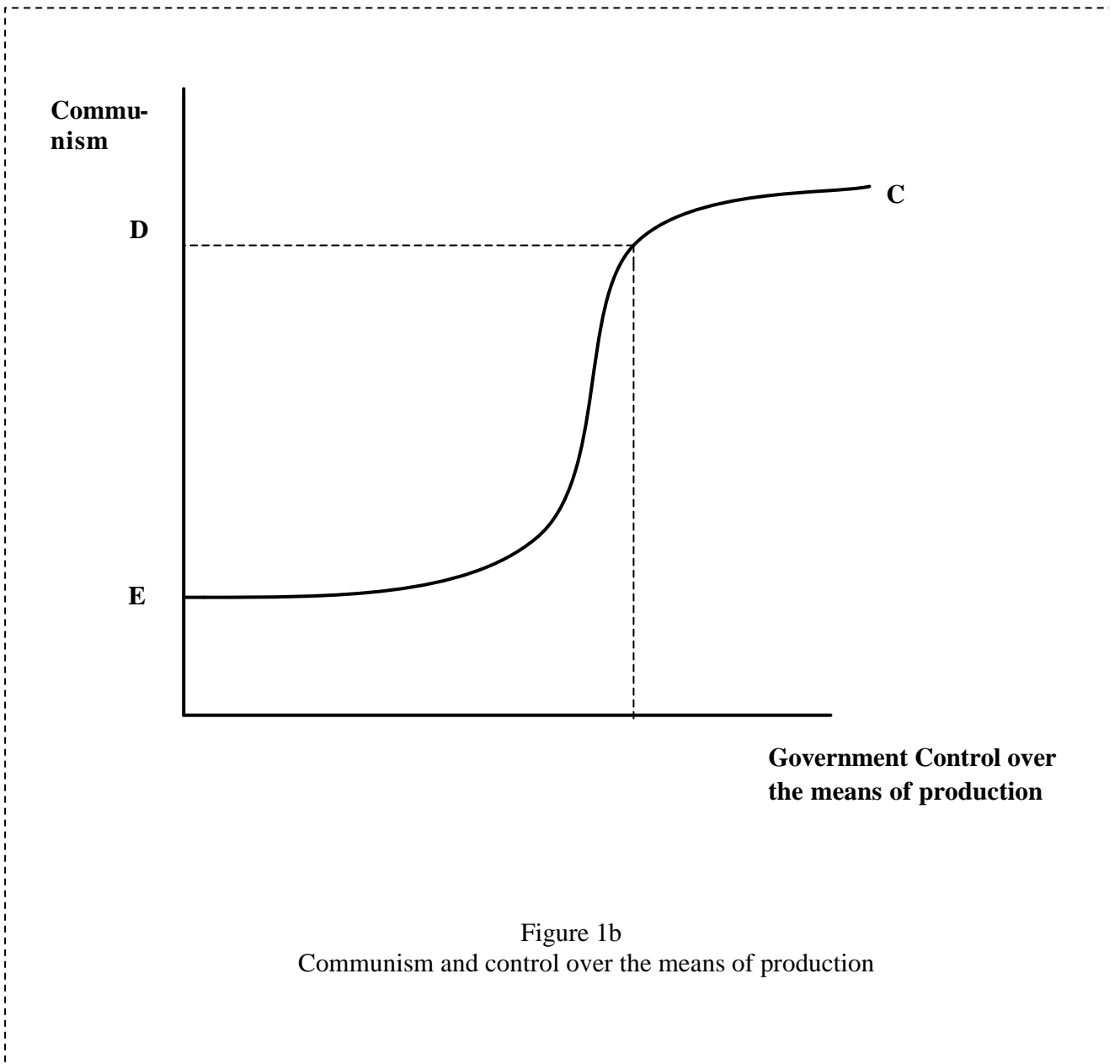
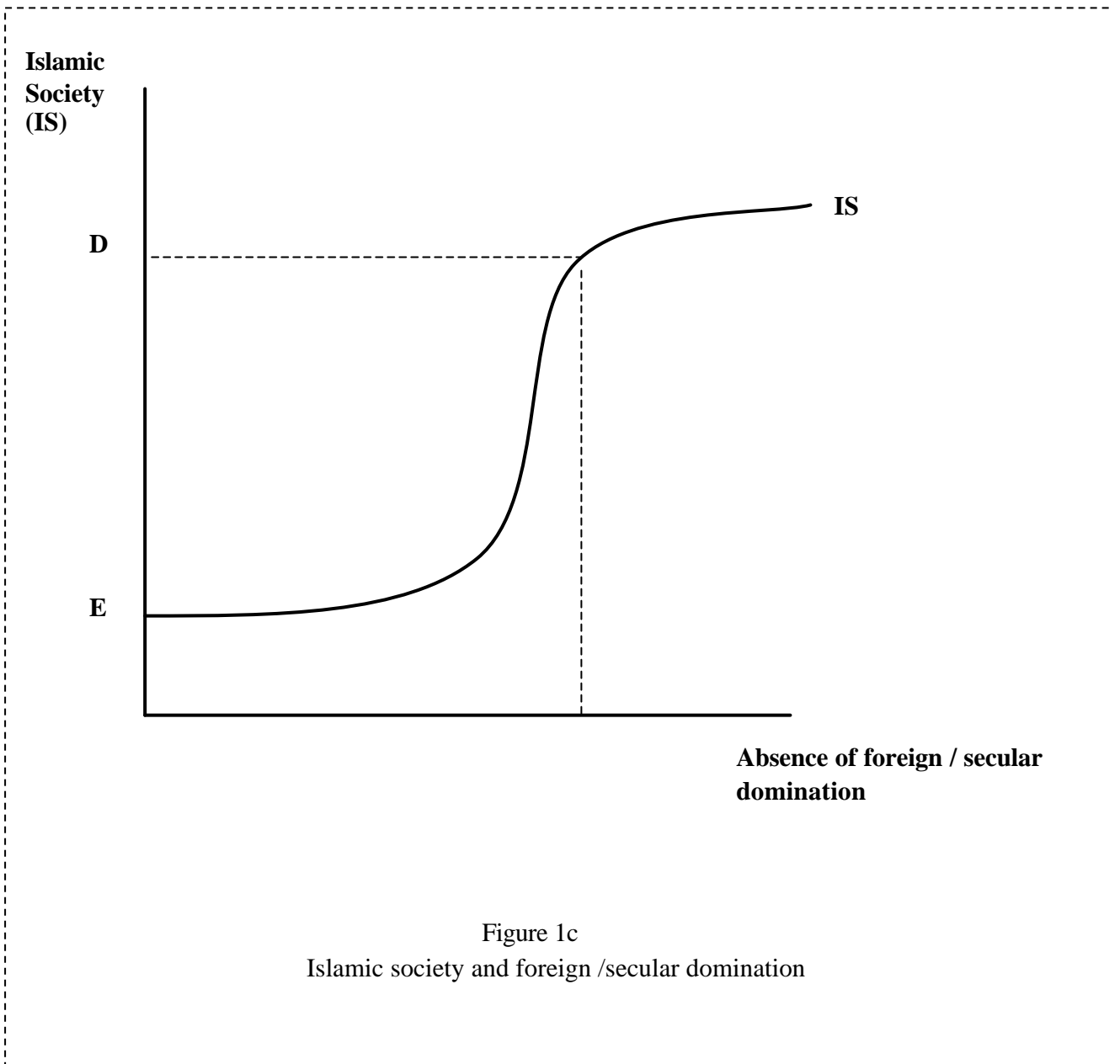


Figure 1b
Communism and control over the means of production

C = Communism

At D, the state has sufficient control over the means of production so that C is possible,
so D = critical point

E = some communism is possible even with no government control over industry



At D, enough foreign or secular domination has been removed to make an Islamic society possible.

E = Even with total domination, one can still have a little bit of an *ummah*

Thus Figure 1a shows how communism displays this property, Figure 1b

illustrates the case of Palestine- Israel, and Figure 1c contemporary Islamic extremism. In each case there is an indivisibility or area of increasing returns between the intermediate goal and the ultimate goal of the group.

How does the existence of an indivisibility explain why a group would choose methods like terror to pursue its objectives? According to the argument at the beginning of this section, the basic difference between terror and moderate pressure from the point of view of the group is that terror is risky. I try to capture this feature in the choice among methods of pressure, i.e., that between moderate and extremist methods. I represent that as follows:

Assume the organization has a production function which can either produce moderate (M) pressure or extremist incidents (I) in any combination from fixed levels of labour (L), capital (K) and organizational capacity (O). In the second part of the paper we will specify a precise meaning for the latter concept. Of course in reality there is a continuum of methods, beginning with voting, peaceful and lawful demonstrations, then continuing with civil disobedience, violence towards property, assassination of political enemies and ending with violence towards innocent civilians. For the purpose of modeling I assume only two methods, one moderate (peaceful and lawful, and therefore riskless) and the other violent and risky. Then the level of moderate and extremist pressures are:

$$(1) \quad \mathbf{M} = \mathbf{M} (\mathbf{L}_M, \mathbf{K}_M, \mathbf{O}_M), \mathbf{I} = \mathbf{I} (\mathbf{L}_I, \mathbf{K}_I, \mathbf{O}_I)$$

in which

I = the number of violent Incidents and
M = the level of Moderate pressure.

The organization's total stock of L, K and O are fixed:

$$(2) \quad \mathbf{L} = \mathbf{L}_M + \mathbf{L}_I, \\ \mathbf{K} = \mathbf{K}_M + \mathbf{K}_I, \\ \mathbf{O} = \mathbf{O}_I + \mathbf{O}_M$$

In general, an organization can use any combination of moderate or extreme methods. The more that extreme or violent methods are chosen, the greater the level of risk undertaken. Here I assume to begin with that either it uses all its resources in the extremist method, or it uses all of them in the moderate one. This assumption is dropped

in the analysis of Figure 3 and the surrounding discussion. A more general and detailed argument is developed in Wintrobe (forthcoming).

Figure 2 shows the goal of the group Z on the vertical axis. Z therefore represents variables such as nationhood N , Communism C or an Islamic Society IS in Figures 1a, 1b, or 1c. The horizontal axis shows the product of applying various methods of pressure. Suppose that from the risky method there are three possible “states of the world” – success (and the achievement of a high level of pressure I_1 , in which case the level of the goal achieved is $Z_0 + g$) or failure. Failure results in one of two possible outcomes. In the first of these, the attempt to impose pressure fails and the outcome is simply the status quo Z_0 . In the second, the attempt also fails and in addition, the leadership is caught, convicted and sanctioned, retarding the goals of the group. If the value of the sanction as measured by its cost to the goal of the group is $-f$, then the outcome in that case is $Z_0 - f$. On the other hand the outcome of applying a moderate level of pressure is always the level of pressure M , with gains for the group equal to $Z_0 + m$.

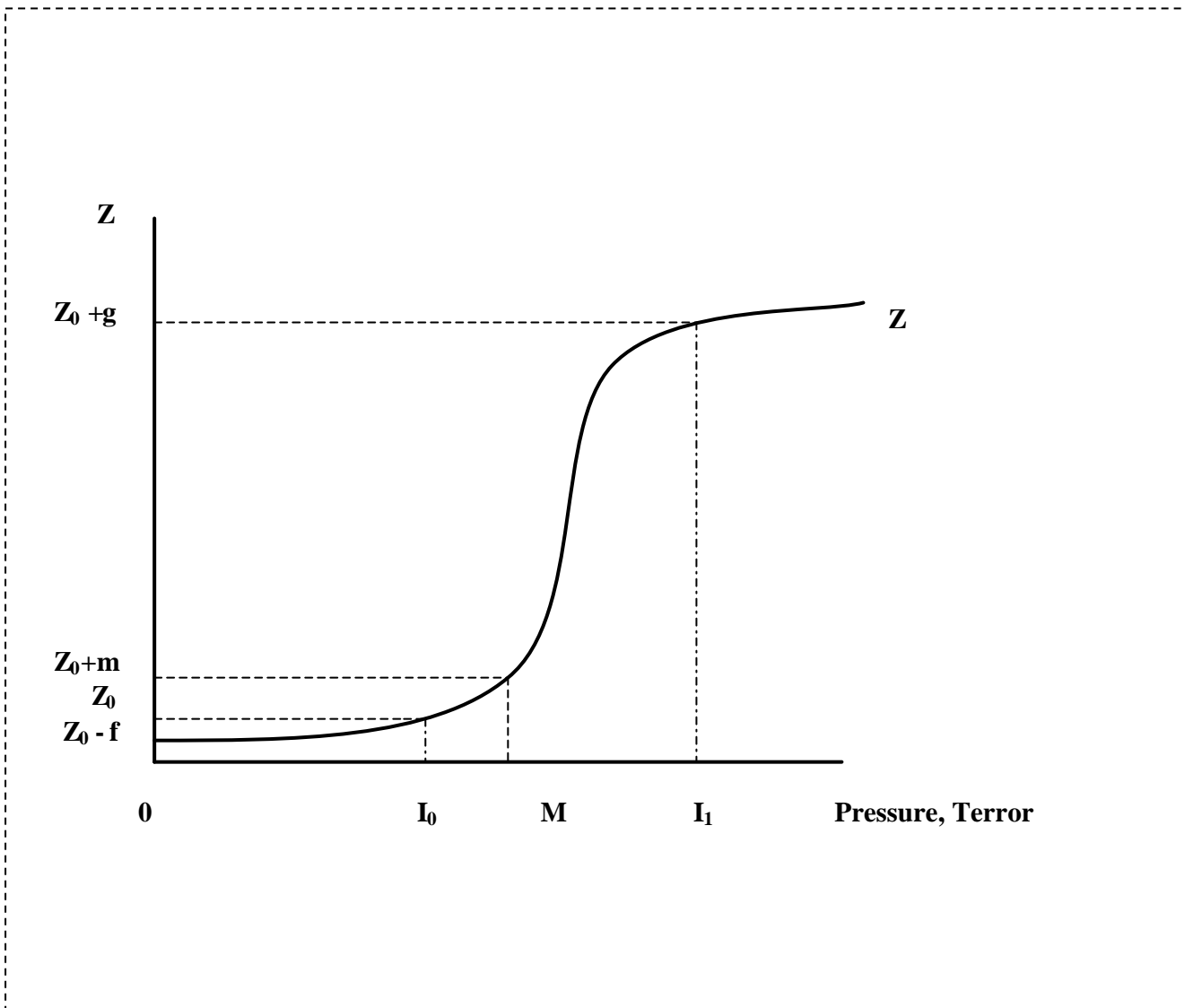


Figure 2 . The relationship believed to exist between pressure or terror and the level of the ultimate objective (Z) that is achieved

Then one dimension of the size of increasing returns may be summarized by the ratio g/m . This is the ratio of the gains from successful terrorist pressure to moderate pressure. The higher this is, *ceteris paribus*, the more the function displays increasing returns. If we let:

q = the probability that extremist methods succeed and the state accedes to the demands of the group

$1 - q$ = the probability that the methods fail

p = the probability that, in addition to failure, the leadership of the extremist group is caught, convicted and sanctioned

f = the cost of the sanction to the goals of the group

Z_0 = status quo level of the goal of the group

U = the utility function of the leadership, which I assume for simplicity depends only on Z ,⁸ and which has the usual properties.

Then extremist methods will be chosen if:

$$(3) \quad qU(Z_0 + g) + (1-q)pU(Z_0 - f) + (1-q)(1-p)U(Z_0) > U(Z_0 + m)$$

This equation, along with Figure 2, shows how terror can be a rational choice. A moderate level of pressure may leave the group stuck in the region of increasing returns, with the goal hardly advanced. With terrorist or risky methods, on the other hand, it is possible that the group can achieve its goal. Of course it is also possible that the group will fail, but note that the costs of failure may not be that large if there are increasing returns, and $Z_0 - f$ is not that far from Z_0 . Thus, given that the goal displays increasing returns, terrorism may be a rational choice.

A more general formulation of the extremist leader's choice of method is displayed in Figure 3. Here, the allocation of resources between pressure and terror is a continuous variable: the leader can use any combination of moderate and extreme methods. The horizontal axis displays the ratio of extreme to moderate methods I/M . The larger the use of extremist methods, the greater is the risk. The use of either method of pressure results in some level of achievement of the goal Z , as shown on the vertical axis. The expected level of Z from various combinations of I/M , and their expected utility to the group leader is displayed on the vertical axis. The indifference curves displayed are those of the leader. Of course extremism can backfire and reduce goal achievement (meaning the slope of EZ will turn downwards after some point) but we restrict ourselves

⁸ An alternative assumption is that the leader is interested only in power or consumption and promulgates Z as a means to achieve that goal. So long as the achievement of the goal and the pursuit of, say, power are perfectly positively correlated, the analysis is unaffected. In the analysis here, the only way to get more power is to produce more pressure to get more Z . A more general analysis would include the possibility of corruption and a divergence between the private goals of the leader and the professed goal of the movement Z .

here to the region where the methods are successful⁹. In effect, the figure is a simple adaptation of two – asset portfolio theory where moderate pressure is the riskless asset and extreme methods the risky one.

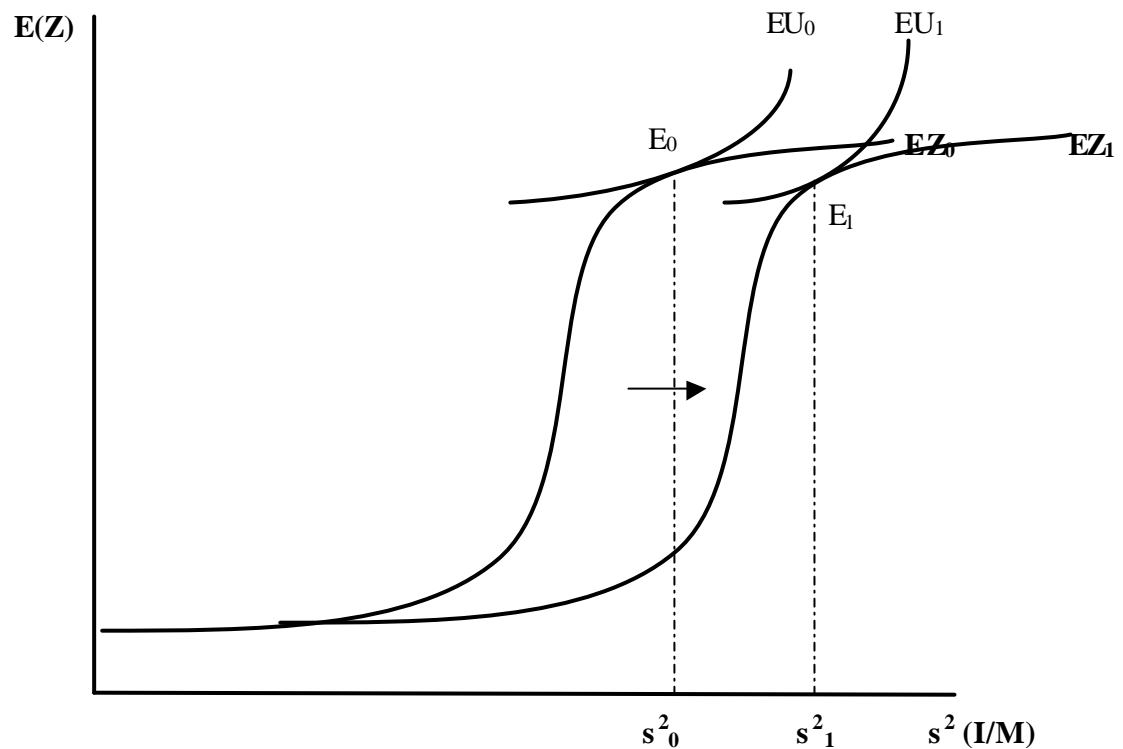


Figure 3. A turn to a more extremist ideology (shown by the arrow) implies greater use of violence (extremist methods), shown by the shift from E_0 to E_1

The point of the figure is to show that the more extreme ideology of the leader, the more likely he or she is to use extremist methods like terror. To see this point, consider a shift towards a more extreme ideology. This is represented in the figure by a

⁹ This does not affect the argument in any way (see Wintrobe (forthcoming, chapter 4.))

rightwards shift of the EZ curve (from EZ_0 to EZ_1). To illustrate with our examples, this means that, after the shift, Palestinians (Israelis) believe they need *more* of the land in the middle east before they can be a true nation, or Communists believe the government must control *more* of the economy before Communism can be achieved, or Islamic radicals believe they must get rid of *more* foreign and secular influences before a genuine Islamic *ummah* (community) can be achieved. As the figure clearly shows, a rightward shift of the EZ curve results in an equilibrium involving more risk taking, i.e., a greater use of terror.

Whether terrorism is rational depends on the structure of opportunities. The greater the indivisibility, the larger the ratio g/m , and the more likely extremist methods will be chosen, as shown in equation (3). An increase in the likelihood that the methods succeed (q) will also raise the likelihood that these methods are chosen. Similarly, an increase in the capacity to manufacture terrorist incidents I would raise the level of terror by raising the ratio g/m .

The other main determinants are the deterrence variables p and f . Increases in these variables are effective in deterring extremism, if they can be raised high enough. But note that increasing returns may limit the effectiveness of these variables. If increasing returns are large, as depicted in the figure, the enormous potential gains from terror and the small potential losses to the goals of the group explain the indifference of many extremist groups to loss of life, either that of their victims or the losses to members of the group who sacrifice themselves for the cause. For the same reason, sanctions and other punitive measures against the group may not be effective. Second, raising p sufficiently high to act as an effective deterrent may involve a conflict with civil liberties, as is often remarked.

Some other reasons why deterrence variables may be ineffective can be elaborated if we recall that further work on crime suggested that there were other limits to the effectiveness of punishment besides the cost of the resources used in pursuing criminals and punishing them discussed by Becker (1968). The first is that too high punishments could lose the support of the community, thus reducing p in cases where that is crucial to catching and convicting criminals (Akerlof and Yellen (1994)). The second is that, in the case of capital punishment, juries might be less willing to convict when the

judge has the option of sentencing the defendant to death, since in that case they would be more afraid of making an error (Andreoni 1995). So on both counts, the limit to f is that $p = p(f)$, $p' < 0$. Now in the case of terrorism these limits are even more pronounced, essentially because the implementation of punishments which are “excessively” high is often exactly what the terrorists are hoping for. They hope that excessive punishment will boomerang and cause a bandwagon effect which increases support for their cause.

To understand this point, let us modify the simple model in equation (3) to include bandwagon effects. Thus let

r = the probability of an outcry or bandwagon effect which gains $+h$ to the group as the result of the “overreaction” of the state. Then the choice between methods becomes

$$(4) \quad qU(Z_0 + g) + (1-q)prU(Z_0 - f + h) + (1-q)p(1-r)U(Z_0 - f) + (1-q)(1-p)U(Z_0) > U(Z_0 + m)$$

Clearly, the payoff to terrorist methods is larger, the larger the level of r .

These difficulties with eliminating terror through policing and sanctions lead to the consideration of other methods.¹⁰ The most important of these is to make the indivisibility divisible. This is discussed shortly. But first let us turn to the behaviour of followers.

3. Followers

Why do people join extremist organizations or participate in extremist acts? The most obvious reason that is often suggested is that they believe in the goals of the organization, and they participate in its activities in order to bring them about, just as we argued for leaders. However, in the case of potential followers, there is a “free rider” problem: since a follower’s contribution towards the achievement of the goals of the organization is likely to be small, why not “free ride” and hope that others will make the necessary

¹⁰ Frey (2004) provides an extensive discussion of the attractiveness of the “carrot” as opposed to the “stick” in deterring terrorism.

effort? In the case of extremist organizations, which, as we saw in the last section, usually have goals which are grand and distant, and therefore unlikely to be achieved, this problem is particularly acute. Whatever the goal of the organization – a national homeland for Palestinians or Kurds, the removal of foreign domination by the Indians in Kashmir or the Russians in Chechnya, the removal of US troops from Saudi Arabia, or the IDF from Lebanon or Palestine – the individual's own contribution to this goal cannot be significant no matter how large his personal sacrifice. So we would not expect people to join such organizations, or even to participate in their activities, simply because they believe in their goals.

Why, then, do they participate? Research into the internal workings of extremist groups has suggested two things. First, such groups are characterized by a high level of social cohesion or solidarity. Thus, as Post suggests, “For many, belonging to the terrorist group may be the first time they truly belonged...” (Post (1990), p. 31). Similarly, suicide martyrs do not commonly act alone but are usually members of groups who “demand” their services (Hoffman (1998), Pape (2003), Ricolfi (2005)).

Secondly, members of such groups usually do hold, in common, a set of extreme beliefs. Islam as used by Al Qaeda is not a purely religious doctrine but one that has been intensely distorted to serve the ends of the group (Black (2001), Gunaratna (2002) Ruthven (2000)). Some other extremist groups have particularly bizarre beliefs: for example, the Christian Identity movement in the United States apparently believe that the lost tribes of Israel are composed not of Jews, but of “blue-eyed” Aryans”, and that Jesus Christ himself was an Aryan (Hoffman, p. 112). Mark Koernke's 1993 video, *America in Peril*, states that “elements within the US government are working with foreign leaders to turn the United States into a dictatorship under the leadership of the United Nations.” (Karl, 1995, p. 69)

It seems, then, that two remarkable features in many extremist groups are the extremity of their beliefs and the depth of solidarity. I contend that neither of these two phenomena are necessarily irrational, and indeed that the key to understanding both of them is that they are related to each other. More precisely, they are the outcome of a process whereby beliefs are traded in exchange for solidarity or social cohesion. The person who gives up his beliefs loses something, which could be called his or her true

“identity” or “independence of thought” or “autonomy”. On the other hand, he or she gains the experience of greater solidarity or social cohesion or “belonging-ness”.

Note that the free rider problem does not apply to the receipt of solidarity which is a private good. At the same time, this idea can also explain why a person joins organizations with beliefs and goals which are similar to his or hers, and why people who have the same beliefs as extremist organizations tend to join or participate more than those who do not. The reason is that the more the beliefs of the individual are in agreement with those of the organization to begin with, the smaller the sacrifice required in terms of the individual's own autonomy necessary to receive a given level of solidarity. *Consequently an individual joins an organization whose beliefs are close to his not because he thinks that his own efforts will make any palpable difference to the achievement of the goals of the organization, but because that way he obtains the desired solidarity at the lowest “price.”*

3.1 Trade in beliefs

To summarize, in many extremist groups, two remarkable features are the extremity of the beliefs and the depth of solidarity. At the end of the last section, I suggested that the key to understanding both of them is that they are the outcome of a process whereby beliefs are traded in exchange for solidarity or social cohesion¹¹.

To sketch a model of how this process operates, assume that an individual is endowed with a certain set of beliefs, and, corresponding to this, a certain identity. If a person agrees to join a group, the price of admission is, in part, that he or she adopts certain beliefs which are sanctioned by the group. Additional requirements might be that

¹¹ Sunstein (2003) argues that there is another process at work in groups: a “law of group polarization” whereby deliberation in groups results in the group – and the individuals within it – take more extreme positions as a result of group deliberation than they would as individuals. He suggests that this is more likely, the more limited the information available to the group, and the more individuals wish to be favorably perceived by others in the group. The law is based on work in social psychology, and Sunstein also provides an interesting summary of the evidence gathered in that field in favour of this proposition. Note that this process is not the same as conformity, that is, the group does not converge at the median of the group’s judgments, but becomes more extreme. However, the process is related to solidarity, and indeed in some ways to the “solidarity multiplier” described below. It would be interesting to derive the conditions under which Sunstein’s result holds in a strictly rational choice framework (earlier, I tried to derive a similar result without success), and to assess the conditions under which it might invalidate or modify the results on group decision making – the median voter result and the Condorcet theorem – which are more characteristic fare of public choice.

he participate in group activities or in some other way demonstrate that he shares in the beliefs and goals of the group. The organization, in turn, supplies the individual with the sense of belonging to a community, by organizing events or activities which individuals can attend and participate in, meet and get to know others in the organization.

The main implication of this way of thinking is that a person who holds a belief which appears on the surface to be irrational may not be irrational: the rationality may consist not in the content of the belief, but in the reason for holding it. On this reading, the person who believes there is a UN plot to take over the US government is no more irrational (in principle, if not in degree) than the professor who states to the officials in the administration of his university that this department, more than any other in the faculty, deserves more resources: in both cases, the reason for the belief may be solidarity or social cohesion, not the intellectual coherence of the belief itself.

It is simple to formalize the basic proposition of the model, i.e., that social cohesion (solidarity) and conformity (unity of belief) are positively related. To do so, assume that individuals have utility functions in which both autonomy and solidarity are positive arguments:

$$(5) \quad U=U(A,S)$$

where the functions have the usual properties: $U_a > 0, U_s > 0, U_{aa} < 0, U_{ss} < 0$, and $U_{as} > 0$

Individuals are willing to trade autonomy for solidarity, and the way they do this is by adopting the beliefs demanded by one or more suppliers of solidarity. These suppliers may include religious organizations (organized religions and cults), gangs, political parties and movements, unions and business firms, and other organizations. The “industrial organization” of solidarity is complex because solidarity tends to be produced in the process of working towards some goal or participating in some activity and thus is usually supplied together with the that activity.

An initial depiction of the tradeoff between solidarity and autonomy for an individual is provided in Figure 4. The indifference curves correspond to the equation $U=U(A,S)$ above. The individual maximizes utility subject to a constraint in the form of a production function

$$(6) \quad f(A,S) = 0$$

depicted as the production possibility curve between solidarity and autonomy ES in

Figure 4.

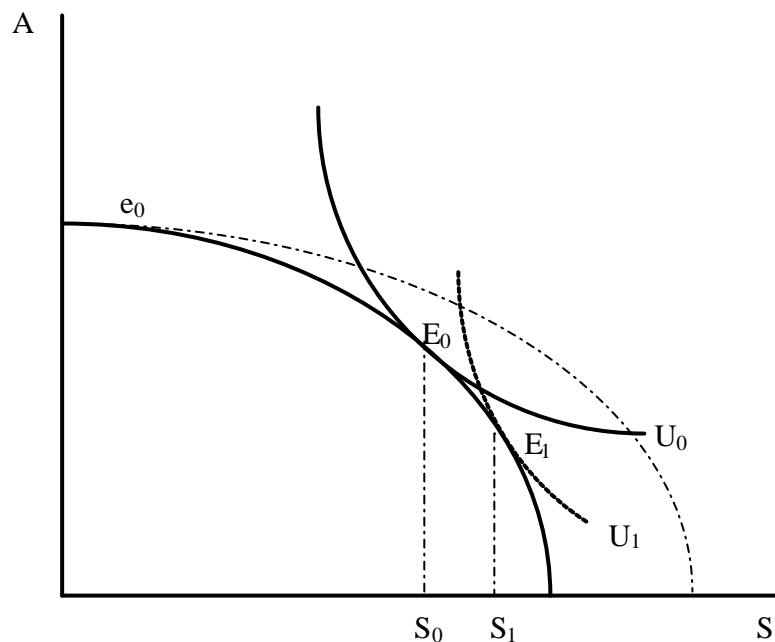


Figure 4. The behaviour of followers: Because of the solidarity multiplier, the individual chooses S_1 instead of S_0 .

A typical individual will have an endowment point like e_0 , and will trade autonomy for solidarity by giving up his own beliefs in the manner discussed, ending up at an equilibrium like E_1 . The rate at which he can trade off autonomy for solidarity depends on the technology available for doing this, as summarized in the production function. Thus churches have a “technology” for conversion involving rituals, dogmas, and ceremonies by which individuals are assisted in becoming believers. Other organizations may have¹² step programs, identification rituals such as “jumping in” to a gang (as discussed above), and so on. The production possibility curve is depicted as having the usual shape, implying diminishing returns to the conversion of autonomy into solidarity and vice versa. This is one way of specifying the group’s “organizational capacity” described in the previous section.

However, this analysis leaves out something important: once an individual i has

made the choice of giving up some of his autonomy A in exchange for solidarity S , he has given up some of his autonomy and therefore his independent capacity to choose. For small changes this might not matter but for large ones it obviously does. To some extent he has given up the control of the choices he might make to the leader of the group L . We will see in the next section that this gives rise to a very different picture.

3.2 *The solidarity multiplier*

In the last section we showed that an individual obtains solidarity in part by trading away his beliefs for those of the group, as personified by its leader L . If so, we can substitute the leader's utility function for I 's utility function to the extent that i chooses solidarity S over autonomy A . Perhaps the simplest assumption to make about the utility function of the leader is that she cares only about the aggregate level of solidarity of the members:¹²

$$(7) \quad U^L = U^L(S) \text{ where } S = \sum s^i$$

Presumably the only dimension of the leader L 's utility function that is relevant to member I 's decision-making is the level of I 's solidarity s^i . So far as each member i is concerned, he can contribute to group solidarity only by choosing more S . It follows that we can substitute the relevant portion of the leader's utility function

$$(8) \quad U^L = U^L(s^i)$$

for that of the member $U^i(a^i, s^i)$ to the extent that i chooses S . This gives a new utility function U for i where his choices are now only partly his own (to the extent that he chooses autonomy A). The other part of his choices is governed by the leader. Thus:

$$(9) \quad U = (s/a+s) U^L(s) + (a/a+s) U^i(a, s)$$

where the superscript i on s and a has been dropped for simplicity, and $s/a+s$ is the fraction of his choices (utility function) which are solidary, and therefore identical to the leader's choices. Similarly, $a/a+s$ represents the weight on the autonomous portion of his utility function U^i .

This utility function may be assumed to have the usual properties: diminishing

¹² If we assume K and L are fixed for simplicity then the only dimension of choice is the proportions of A or S to use in the production of Z . Thus S might be expected to raise productivity relatively more where the co-ordination of activities is important, as in Alchian and Demsetz (1972)' team production. On the other hand, A might be most important when the output of the team implies creative thinking. Thus it seems reasonable to suppose that for a university $\partial Z/\partial A$ would be relatively high and $\partial Z/\partial S$ low, and vice versa for a mass organization.

marginal rates of substitution and so forth. However, the leader is interested in the level of solidarity of the group and in that of individual members only to the extent that it contributes to group solidarity. Consequently, an increase in the level of solidarity of only one member will not have much effect on the aggregate, and therefore MU^L/Ms^i does not decline as rapidly with an increase in s^i as MU^i/Ms^i . Indeed if the group is not too small it is not unreasonable to assume that the leader's indifference curves in this space are vertical lines, as shown in Figure 5.¹³

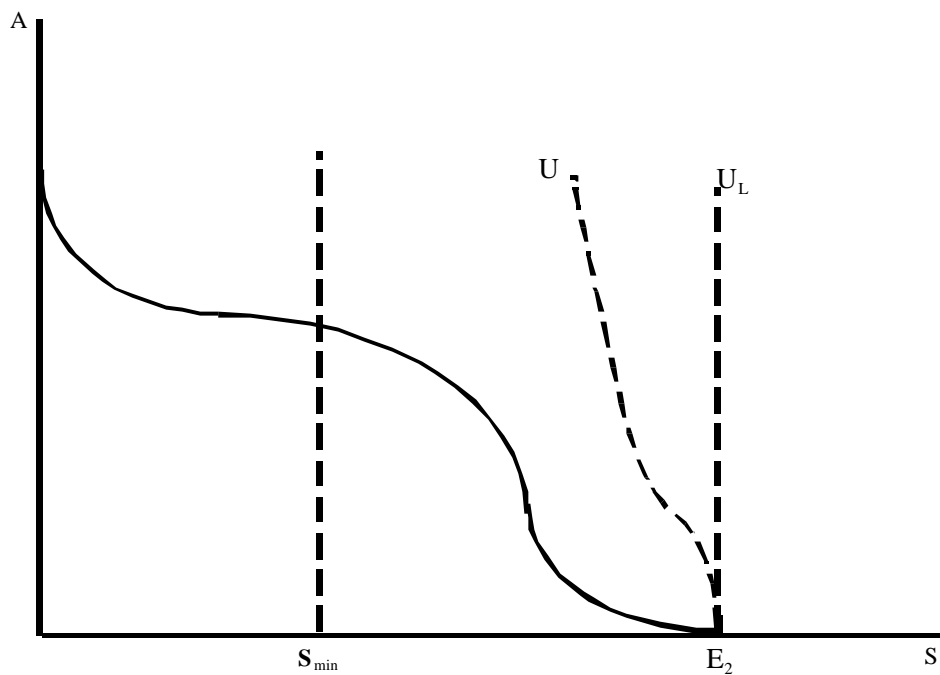


Figure 5. At (and possibly also near to) the corner E_2 , the follower with utility function U will be willing to sacrifice him or her self for the group. U_L is the leader's utility

¹³ It could also be assumed that the leader dislikes individual values which may conflict with those he wishes the group to follow, i.e., $\partial U^L / \partial a^i < 0$. In that case the leader's indifference curves in a s^i, s^i space are positively sloping upward lines, reflecting the idea that for him s^i is a "good" and a^i a "bad". In this case, as s^i continues to increase and the weight of the leader's utility function becomes sufficiently large, i 's preference for S over A does not decline but actually increases as S increases, leading to an increase rather than a decrease in the slope $dA/dS = -MU^S/MU^A$. Ultimately, i 's indifference curves would become positively sloped as they get close to the S -axis.

function, which depends only on the follower's level of solidarity.

Moreover, as i chooses more solidarity, that is a^i falls and s^i rises, the increase in s^i increases the weight of the leader's utility function in I 's utility function. Consequently the decline in the marginal rate of substitution of s for a is less, and the slope of the indifference curve does not fall as much as it would if i were totally "in control" of his own decision making.

To see the effects on I 's decision making, assume that i maximizes utility as described in (9) subject to the production function of the organization (6). The first order conditions are:

$$(10) \quad MU_s MU_a = f_s/f_a$$

i.e., that

$$(11') \quad \frac{aU_s^i + s(U^L_s) + (a/(a+s))(U^L - U^i)}{aU_a^i + (s/(a+s))(U^i - U^L)} = \frac{f_s}{f_a}$$

The first term on the top of the left hand side is the marginal utility of solidarity to i , weighted by the autonomous portion of his utility function. The first term on the bottom of the left hand side is the marginal utility of autonomy to i , similarly weighted

Equation (11') shows how group preferences enter the individual's utility function. Thus, the second term on the top of (11') is the marginal utility of I 's solidarity to the leader, weighted by the portion of I 's utility function which is identical to the leader's. The third term on the top shows the marginal gain and loss from the fact that that as s rises, U^L replaces U^i in I 's composite utility function U . Similarly, the second term on the bottom of the left hand side represents the increased weight of the utility function of the leader (U^L) in I 's composite utility function U as a falls. The larger is s , the greater the importance of these terms which represent the values of the group in the individual's preferences.

The term on the right hand side is the slope of the production possibility curve, which shows the technology that the group makes available to the individual for incorporating increased group preferences into his or her utility function. The greater the

group=s capacity to enable the individual to do this, the larger is the right hand side f_s / f_A . At an interior solution, of course, the left and right hand sides of (11') will be equal.

An indifference curve corresponding to the utility function described in Equation (10) or (11) and (11') is shown as the dotted indifference curve U_1 in Figure 4. As can be seen there, the normal tendency for the indifference curve to flatten out as S increases due to a diminishing rate of substitution of S for A is compensated for by its tendency to “steepen” as i increasingly adopts his leader’s values. Consequently the indifference curves will be steeper than they would be if i could somehow choose more solidarity without substituting his leader=s values for his own as he does so. The result is that i chooses a higher level of solidarity (E_1 rather than E_0 in Figure 4) in the case of an interior equilibrium solution. The difference between E_0 and E_1 is the result of this solidarity multiplier.

The intuition behind this result is straightforward: as the individual chooses more solidarity, in order to get it he adopts beliefs and values that are more akin to those of the leader. But, with these new values and beliefs, he finds that he prefers more solidarity than he did originally. In order to acquire still more solidarity, again his beliefs and values must change in order to conform to those of the other members of the organization. In turn, with this new utility function, he wants more solidarity than previously, leading him to change his values again, which again results in yet a further demand for solidarity, and so on¹⁴. An interior equilibrium will result if these effects occur at a sufficiently diminishing rate, as shown in Figure 4.

One need not join an extremist group to observe the solidarity multiplier in action. I first noticed it (but did not understand it) years ago in the behavior of academic friends (not all economists) when they assumed important administrative positions such as department chair or dean of the faculty. Within a short time their values seemed to undergo a transformation: previously highly individualistic in many cases, their conversation was now laced with phrases like the good of the department, the importance of promoting institutional values, and so on. Their behavior seemed to change as well, as they now began to promote collaborative research projects and loyalty to the department.

¹⁴ Morris Coats, my commentator at the conference, has a nice alternative name for the solidarity multiplier: “the slippery slope of solidarity”.

One can also see the solidarity multiplier at work in the behaviour of economists, who with their powerful paradigm of rational behaviour, often misunderstood by outsiders, are often thought of as a cult –like group. The solidarity multiplier can easily be observed in the behaviour of graduate students when they first grasp the essence of the economic way of thinking, and begin to apply it to all sorts of situations, including those where it may be inappropriate. Everyone has their favorite stories here but perhaps one example will suffice: that of an economist in a (fast- shrinking) club or restaurant where it is possible to smoke, and who does so, and when another person complains, asks how much that person would be willing to pay to have him put it out, explaining that if it is less than the value to him of smoking the cigarette, it is “efficient” him to do so.

Of greater importance is the possibility of temporary, rapid increases in solidarity such as those noted by Ricolfi (2005) in his empirical work on Palestinian suicide martyrs. Ricolfi found that the desire for suicide martyrdom was often motivated by revenge or the desire to avenge tragic events such as the death of a relative at the hands of Israeli forces. Similarly, Revenge@ is the classic motive in many studies of solidarity (eg. Gold (2000)). At the mass level, in Palestine, as in many other movements, the funeral of some important or tragic figure often becomes the occasion for stimulating revenge. The solidarity may be temporary, but that is enough to provide a mechanism for stimulating action.

The analysis in Figure 4 is incomplete. It is easy to imagine that the self-reinforcing process just analyzed leads to a corner rather than an interior equilibrium. The properties of the corner equilibrium are examined in the next section.

3.3 *The attraction of the corner*

At very high levels of S, I’s utility function more and more becomes the same as the leader’s, and his values his leader’s values. A “corner” solution will be reached if the slope of the indifference curve is everywhere steeper than that of the production possibility curve:

$$(12) \quad MU_s/MU_a > f_s/fa$$

i.e., that

$$s(U^L_s) + aU^i_s + (a/(a+s))(U^L - U^i) \quad f_s$$

$$(12') \quad \frac{aU_a^i + (s/(a+s))(U^i - U^L)}{f_a} > \bar{f}_a$$

If condition (12) or (12) holds, individual i rationally chooses an equilibrium with all S , zero A . His utility function is simply the utility function of the leader $U^L(s^i)$. The individual has no independent thought but is completely under the leader's control.¹⁵ His values are completely those of his leader and he will do whatever maximizes his leader's utility. If the leader wishes him to commit suicide for the goals of the group, he will do so. Note that he might do so even if he or she is not at a corner, but close to it, so the views of his leader or the values of the group contain great weight in his utility function. But note also that a corner is more likely here than in many other situations because of some peculiar properties of the process of converting autonomy and solidarity, which cause the production possibility curve to bend as it approaches either corner. Thus for example, most organizations where solidarity is important have some ritual which requires the individual to commit to it, i.e. religious conversions or "jumping in" in the case of gangs or mafiosi. This makes the loss of A at the initial level of S discontinuous, as depicted in Figure 5.

At the other extreme, where A is initially zero, the curve also displays increasing returns. The behavior of children provides an illustration. Thus, one can imagine that children brought up by their parents and initially lacking an identity of their own have to make a dramatic (discontinuous rather than marginal) change in order to get one. Thus they cannot move from $A = 0$ in small steps, but need to revolt against their parents in order for this to happen. This point implies that from the point $A = 0$, the production possibility curve has an increasing rather than the usual decreasing slope, i.e., initially $M_a^2/M_s^2 > 0$, as also depicted in Figure 5. In turn, this also increases the likelihood that an individual who demands high solidarity will end up at a corner. In the reverse process, individuals who come under the spell of a charismatic leader may need to be de-programmed in some way in order to return to normal society.

¹⁵ Note that the *leader* does *not* have an equilibrium at the corner E_0 . Indifference curves like U^L do describe his preferences, but the constraint in Figure 4 and 5 describes the choices available to a subordinate or member, and is *not* the constraint facing the leader. Hence the equilibrium autonomy and solidarity in Figures 4 and 5 is that of a member, not the leader. The leader's equilibrium cannot be described with this apparatus, but it is described in Figures 2 and 3 and the surrounding discussion..

What is peculiar about the corner is not that only there is rational suicide possible, but that at a corner, the individual will be particularly resistant to change. In particular he will be resistant to pressure from outside sources such as threats or increases in the likelihood of prosecution or the size of the punishment for being a member of such a group.¹⁶ And he will also be resistant to outside information which is critical of the group, unless that information comes from the leader. But although small changes will not cause any change in his behavior, very large changes will cause a substantial movement, as is usual for corner solutions.¹⁷

One way to see this point is to note that although $a = 0$ at the corner, the slope of i 's indifference curve at the corner is not infinity, i.e, it is not a vertical line like the indifference curve of the leader (the latter is depicted in Figure 5). Substituting $a = 0$ into (12)' gives the condition at the corner:

$$(13) \quad \frac{s(U^L_s)}{(U^i - U^L)} > \frac{f_s}{f_a}$$

The top shows the marginal utility of s to i , which is the same as that to his leader, since at $a = 0$, the utility of s to i is the same as his leader's. The bottom shows that as i "tastes" a small amount of autonomy a , the gain is his original utility function U^i minus the loss of the leader's utility function U^L . So even at the corner, where he has no autonomy, he is capable of getting his autonomy back.¹⁸

¹⁶ Sandler and Lapan (1988) and Enders and Sandler (2002) also consider the case of "fanatical" terrorists, defined as those who do not fear death, and suggest that deterrence is ineffective for such individuals. However, note that the point here is somewhat different: "fanatical" terrorists here are those who appear fanatically *loyal* or *obedient* to the organization's wishes. It is worth noting that sufficiently large penalties *can* be effective, as noted above. Finally, in this model solidarity, even when extreme, is always contingent. To illustrate this point, it is useful to recall that it is often suggested that no group ever demonstrated more loyalty to its leader than the SS to Hitler. Yet, towards the end of the war, when it was obvious that the Nazi regime was collapsing, these people deserted the regime in large numbers (see the analysis in Wintrobe 1998, chapter 13).

¹⁷ External changes which raise the "price" of solidarity would make the production possibility curve steeper in figures 3-4 (not shown).

¹⁸ A similar point holds at the opposite corner, where $s = 0$. The condition for that case is

$$(14) \quad \frac{aU^i_s + U^L - U^i}{aU^i_a} < \frac{f_s}{f_a}$$

Even though $s = 0$, the partial derivative $U^i_s \neq 0$. The numerator shows what would happen if i moved away from the corner. He would gain U^i_s as usual, but in addition his utility function would change: to some extent, he would give up his "own" utility function and substitute that of the leader, as

An individual who is at the corner may be extreme, but it is vital to note that he is not irrational. He possesses a well behaved ordinal utility function, and is perfectly capable of making choices that maximize his utility in the usual sense. Indeed, his behavior is merely an extreme version of a form of behavior which is extremely common, namely that, in part, he internalizes his values from the values of others, especially from those in a position of power over him. To obtain solidarity with the group of which he is a member, he adopts the group's values and beliefs. This is precisely what members of religious groups do when they agree to or internalize the values and beliefs of their religion, or what members of ethnic groups do when they subscribe to the belief that they belong together in some sense because they have as ancestors people who held similar beliefs, or what economists do when they write papers based on a certain set of assumptions that they share about human nature (e.g., that people are always rational!). The only difference in the behavior of the individual who is in equilibrium at a corner is the extent to which he behaves in this fashion. The behavior itself is perfectly normal and rational. And all of us are familiar with the internal struggle between doing what is right for the group and doing what is best for one's self felt by individuals who are not at a corner but near to it.

4. Combining demand and supply, and some policy implications

Equilibrium in the complete model implies that (1) each individual within the organization is maximizing utility given the organizational technology for converting autonomy into solidarity, and (2) the leader of the organization, given the preferences of his or her membership, the capacity of the organization to build solidarity, and his preferences for risk and the relationship between risk and return, is also in equilibrium. Thus each member is either at E_1 in figure 4 or at the corner E_2 in Figure 5, and the leader is at E_0 in Figure 3. To see how the complete model works, consider an illustration. Suppose some exogenous change, such as a change in the technology for converting A into S . We will show that *the better the technology for converting A into S , the more*

shown by the term $U^L - U^I$. Conformity is the price of solidarity.

likely the leader of the organization is to choose extremist methods over moderate ones.

To see this point, consider Figures 3 and 4. The dotted production possibility curve in Figure 4 shows the exogenous improvement in the technology of converting A to S. Now, the greater the solidarity among the members of the group, the more pressure the organization is capable of producing for any given level of capital and labour, and therefore the larger the amount of the goal Z which is attainable. So at any given level of risk, the improvement in technology raises the expected return (in terms of Z) for any given level of risk. Expressed in portfolio theory, there is a “wealth” effect as the capacity of the organization increases. In Figure 3, the wealth effect means that the EZ curve would shift up (not shown). The effect of a pure increase in wealth on risk taking is ambiguous. Provided the relative risk aversion of the group leader decreases as wealth increases, the leader will switch to a relatively more risky portfolio, that is, make relatively more use of extremist methods. In addition, there is a substitution effect which favors risk taking, as the increase in capacity is larger, the greater degree of risk undertaken. This is because solidarity is more important for implementing terrorist acts¹⁹ than it is for moderate ones, as displayed in Figure 4. The substitution effect always favours risk taking. So the leader may decide to become more extreme even if relative risk aversion is constant or even increasing, provided that the substitution effect dominates the “wealth” effect²⁰.

This kind of analysis provides a clue for policy, especially with respect to the “carrot vs stick” debate which characterizes much of the policy debate over how to deal with terrorism.²¹ Those who take the “carrot” position argue that we should look at the root causes of terror, and offer potential terrorists an alternative path. To oversimplify, for the purpose of making my point, Pape (2003) suggests that the root cause of suicide terror is always occupation, and proposes a simple solution; end the occupation. Frey (2004) argues strongly that deterrence does not work with respect to terror, and proposes the

¹⁹ This would especially be the case if the technology involved in terrorist acts is multiplicative, as Berman (2003) has argued.

²⁰ See any text on portfolio theory, for example Elton and Gruber (2003). The “wealth” effect here is due to the increase in organizational capacity, and the substitution effect is due to the increase in the return on the “risky asset” of terrorist or violent methods of pressure.

²¹ Frey (2004) provides a comprehensive statement of the issues and argues for the “carrot” point of view.

carrot policy. On the other hand, the US government since 9/11 has more or less exclusively followed a “stick” policy. Now it might be suggested that from the price – theoretic point of view it actually makes no difference, since the substitution effect tends to be in the same direction with either policy²². To take a domestic policy which obviously applies to contemporary Britain, the government there could either suppress militant mosques and madrasses, or it could subsidize moderate ones, with the same effect. But this conclusion neglects the income or wealth effect. While the substitution effect is in the right direction with either policy, the wealth effect may not be. And the wealth effect implicit in some anti – terrorist policies is obviously very large.

From this point of view, the problem in deciding which policy is correct is that there is obviously no way to discover just what the attitudes towards risk of terrorist leaders might be, though the very fact that they are engaged in terror marks them as not terribly risk-averse. Still, the critical variable for assessing the direction of the wealth effect is the behaviour of the coefficient of relative risk aversion as wealth changes, not an easily discoverable number about anyone, let alone terrorist leaders. Consequently, the only policy that is guaranteed to be in the right direction (though not, of course, necessarily effective) is a policy of “carrot *and* stick”. Technically, this neutralizes the wealth effect.

In practice, one can see everywhere the failures of the stick policy alone, from the continuing Israeli – Palestinian problem to the difficulties in Iraq. Demonizing the attackers as “evil” and setting out simply to destroy them often just adds to their base of support. On the other hand, the idea that after a murderous attack like 9/11 or 7/7, the population will be in a mood to listen to the grievances of those who share the goals of the perpetrators is a non- starter. Note that both of these emotive responses are essentially solidarity – based, either with the perpetrators seen as victims, or with the victims of terrorist acts. Policy has to understand these solidarity – based responses and take them into account.

The rational choice approach to this issue can do that, as we have seen. But then,

²² Note that the provision of the carrot along with the stick also tends to solve the difficulties with deterrence discussed in section 2.

having done so, its power as a guide to policy lies in its ability to simply ask: what kinds of incentives would lead rational people to change their behaviour in the desired direction? One place where the combination of carrot *and* stick has been tried is the British government's policies with respect to Northern Ireland in recent years, and it has indeed been argued that it is the combination of policies there which has promoted progress (McGarry and O'Leary (2003)).

5. Authoritarianism

5.1 *The structure of supply: alternative organizational forms*

The types of groups discussed so far include cults and other organizations where individuals often participate together in group activities. However, these are not the only types of groups which can generate solidarity. For example, if the preferences of the members on important issues are relatively homogeneous to begin with, then solidarity may be intense even if the groups do not meet very often if they have other means of communication and a leader with whom they identify.

In general, as we have just argued, the better the technology or production process with which a group enables an individual to convert A into S, the more its members will choose high solidarity. As there is often no capital (except communication devices like computers and physical space to meet in), the main determinant of technology is organizational structure.

In what follows we first summarize some organizational characteristics of cults which have been only implicit in the preceding discussion and then consider some other organizational forms.

5.2 *Cults*

The cult form is characterized by small size,²³ relatively fixed number of adherents, who

²³ In turn this helps to explain why public goods are often supplied by small groups even though their benefits may be non-excludable. It is more difficult for an individual in a relatively small group to free ride because it is easier for the small group to give or deny solidarity according to an individual's contribution. So the small group, unlike the large one, has a way of enforcing contributions through the

in turn are in constant contact with each other, while relatively cut off from other sources of information, and often led by a charismatic leader (see Dawson (1996), Galanter (1999) or Appleby (1997)). This implies some special features of the technology for converting A into S. First, inside the organization the individual is typically grouped with other, like - minded individuals, who are also involved in the transformation and subject to the same group pressures. Less committed individuals may also be screened out²⁴ through the sacrifices which are often demanded of the group, as discussed by Iannaccone (1992). In cults, even bizarre beliefs or practices may appear normal.

Another important feature of the production process which affects the level of solidarity chosen is that it often takes place slowly or in small steps, as in Stanley Milgram's famous obedience experiments, and as Galanter observes for many cult groups. Thus, initially, recruits are usually exposed to relatively innocuous ideas and only as their involvement deepens are they treated to the full panoply of ideas, paranoid conceptions and philosophical notions which characterize the group's ideology.²⁵

5.3 *Netwar and Al Qaeda*

Many of the new generation of terrorist groups are alleged to have more fluid organizational forms, with forms of organization, doctrine and strategies attuned to the information age. This idea is often loosely expressed in the popular press. A precise formulation can be found in Arquilla, Ronfeldt and Zanini (in Lesser, et. al. (1999)), who suggest that Islamic fundamentalist organizations like Hamas and the bin Laden network consist of groups organized in loosely interconnected, semi-independent cells that have

provision of the excludable private service of solidarity.

²⁴ Thus S_{\min} in Figure 5 could be the minimum level of sacrifice demanded of a group member.

²⁵ Akerlof (1991) models Milgram's experiments with a "near-rational" model of obedience. The subjects in Milgram's experiments were indeed often horrified, *ex post*, at what they did (Milgram (1974)). Galanter provides evidence that cults and other groups where solidarity is high typically "brainwash" individuals in a series of steps, by initially coupling social cohesion with relatively innocuous ideas and only slowly introducing more radical ones. All of this suggests that individuals with accurate *ex ante* knowledge or expectations that in joining a group they will end up giving their life for it might decide not to join. On the other hand, the equilibrium in Figures 2 or 3 does not rely on any form of biased expectations or irrationality. Suicide martyrdom is widely reported today, and for people joining certain groups it must be obvious that there is a good chance that that is how they are going to end up. So it seems unwise to deny the possibility of completely rational suicide, fully expected prior to joining the group, while acknowledging that "near-rationality" of the type suggested by Akerlof might make suicide martyrdom more likely for a larger class of people.

no commanding hierarchy (Arquilla et. al., pp. 56-7). Indeed in the archetypal case, they form an all channel network. The all channel network pictorially resembles a geodesic dome, in which each node is connected to each other node. There is no central leadership, no precise Aheart or head which can be targeted” (Arquilla et. al. p. 51).

In turn, the capacity of the design for effective performance depends on the presence of shared principles, interests and goals – at best, an overarching doctrine or ideology that spans all nodes and to which the members wholeheartedly subscribe. ASuch a set of principles, shaped through mutual consultation and consensus building, can enable them to be “all of one mind” even though they are dispersed and devoted to different tasks the members do not have to resort to hierarchy; they know what they have to do (Arquilla, et.al. p. 51).

How can the model of trade in beliefs apply to these forms of organization? There appear to be three issues: First, it seems the members already share beliefs; Second, how can they trade beliefs for solidarity if the members of the organization are dispersed and are not available to provide solidarity by hugging one another? Third, if there is no hierarchy, who makes the organization’s decisions, and how are they communicated?

To address these issues, note first that with respect to Al Qaeda, a more accurate characterization based on the evidence of its structure that we have as presented by Gunaratna (2002) is that it is cellular rather than all channel:

Al Qaeda’s global terrorist network strictly adheres to the cellular (also known as the cluster) model composed of many cells whose members do not know one another, so that if a cell member is caught the other cells would not be affected and work would proceed normally. (Gunaratna p. 57)..... Cell members never meet in one place together; nor do they in fact know each other; nor are they familiar with the means of communication used between the cell leader and each of its members.(Gunaratna, p. 76).

Some evidence that reinforces Gunaratna’s surfaced with the capture of the top Al Qaeda operative Khalid Shaikh Mohammed, of whom it was reported that “Hundreds of captured Al Qaeda operatives said during questioning that they had had a recent

conversation with (Mohammed).....Often, according to intelligence and law enforcement officials, the captured suspects had no knowledge of each other but they had all been in contact with Mohammed.”(New York Herald Tribune March 4, 2003, p. 6)

It is worth pausing for a moment to understand the implications of the cellular structure for how the organization functions and how it could be targeted by anti - terrorist policy. Each cell operates under the command of a leader, who communicates information upwards to his handler in turn. At the end, for operations where there are survivors, a report is sent upwards and the operation is evaluated by the senior leadership. Horizontal communication between cells is strictly forbidden, and in any case the individuals in one cell do not know the individuals in other cells. Now, one reason often advanced for this structure is to preserve secrecy and to lessen the chances that if one branch of the organization is discovered the whole organization is destroyed. But there is another implication: could there be a structure more conducive to authoritarian (hierarchical) control²⁶? In effect with this structure it is only possible to communicate Avertically@ (with superiors). Horizontal communication is minimized, and with it the possibility of any challenge to the leadership, or of organizing actions which feather the nest of subordinates but which are not in the interests of the leadership.

In addition, what is minimized in this loose structure is formal hierarchical structure. But that does not mean that the organization is not authoritarian: quite the opposite. To illustrate, the Nazi party and the Nazi government, while it inherited a formal hierarchical structure from the Weimar regime, tended to bypass it in favour of the more informal bureaucratic structure of the Nazi party. At one point, Hitler declared that only the will of the Fuhrer, not the laws of the regime, formally signified the intentions of the regime and the wishes of the government.²⁷ Descriptions of al Qaeda Aas a fluid and dynamic, goal-oriented rather than rule-oriented organization (Gurantana p. 58) could equally well be made of the Nazi party structure (see for example Arendt (1951)). But does that imply that the Nazi party was not authoritarian?

²⁶ Breton and Wintrobe (1982, 1986) evaluated the efficiency of organizations in terms of the size and intensity of vertical as opposed to horizontal networks. On this approach, the cellular structure has much to recommend it in terms of the efficiency with which subordinates carry out the wishes of superiors. This and other economic approaches to bureaucracy are surveyed in Wintrobe (1997).

²⁷ See Breton and Wintrobe (1986) or Wintrobe (1998), chapter 13.

Some evidence of direct hierarchical control over operations is also provided by Gunaratna. For example, he notes that “Osama directly coordinated important operations such as the September 11 attacks, and while as -Banshiri and his deputy Muhammad Atef worked on the ground in Somalia, Osama provided the strategic leadership for the East African embassy and USS Cole attacks, and reviewed the plans at every stage, pinpointing on photographs of the targets where the explosives - laden truck and boat respectively should be positioned.”(p. 77)

Traditional hierarchical relations are prominent in the modus operandi of Al Qaeda, as illustrated by the following account:

After the execution of an operation at the place and time specified, a full report identifying the strengths and weaknesses of the attack is prepared and sent to the head of Al Qaeda so that its impact can be gauged and the effectiveness of future operations improved. For instance, against his assigned role, the performance of each individual Al Qaeda cadre is evaluated for the purpose of rewarding or reprimanding him for his conduct: Those deemed weak or lazy were dismissed (Gunaratna, p. 75).

Just as in cults, Al Qaeda also practices screening and sorting, training and indoctrination (Gunaratna, p. 81, 98)). In sum, Al Qaeda, it appears to be that of a cellular (and hierarchical) cult based on a distorted version of Islamic ideology which is used to further its goals. The evidence on the importance of training and propaganda and on the fact that the Al Qaeda version of Islamic doctrine is highly peculiar and specific to the organization suggests that *if its members are indeed “all of one mind” this is an effect, not a cause, of the organization’s operation.*

The structure is informal but that does not mean it is not hierarchical. At the same time, the structure is obviously fragile. With horizontal communication among the cells cut off to the point where those in one cell do not even know who the people in the other cells are, and all communication directed upwards through a single channel, the organization would appear vulnerable to the loss of a few key senior people, especially its charismatic leader.

5.4 *Authoritarian regimes*

What type of regime fosters suicide terrorism? We can think of three types of regime for simplicity: (1) democracy; (2) authoritarian dictatorship, or what I have called (e.g., in Wintrobe (1998)) either tinpots or tyrants, depending on their level of repression (if high, the regime is tyranny, if low it is a tinpot regime), and (3) totalitarianism. What distinguishes authoritarianism from totalitarianism is that the level of loyalty to the regime is low. Put another way, totalitarian regimes are ‘mobilizing’ regimes which try to actively engage the citizenry to support the regime, and try to provide the people with public goods and to stimulate economic growth and in other ways attempt to earn their continued support. Under either tinpots or tyrants, opposition to the regime is simply repressed to a large degree. Most of the regimes in the Middle East, for example, especially Egypt, Syria and Saudi Arabia would be classified as tyrannies.

The main problem tyrants have in suppressing dissent is that they do not fulfill the citizens’ demands for public goods and for solidarity. Thus there are typically no organizations propagandizing the citizens of the regime, and there is little or no provision of clubs, social services, medicare, etc. under tyrannies. They do not satisfy the demand for solidarity, as the Chinese and Milosevic regimes have done with nationalism, or as the former Soviet Union did with Communism and later nationalism as an ideology and way of life, and with an array of social and welfare services delivered, if not equally, at least relatively unequally, to all.

So, looking at the model from the supply side, under tyrannies and tinpot regimes, people are left looking for ways to have their demands for solidarity fulfilled. Nevertheless these regimes can be effective at stamping out moderate methods of dissent by simply banning demonstrations, disloyal news media and other forms of opposition to the regime. The same point applies to rulers of occupied territories. Whatever the case for the occupation, the occupiers themselves usually do not provide social services, clubs, etc., and therefore there is no possibility that the bulk of the people occupied will support the regime. In addition, the fact of occupation provides a natural and obvious “common enemy” which aids extremist groups in building solidarity in opposition to the regime.

Like totalitarian regimes, democracies can provide social cohesion. But unlike totalitarian regimes, there are typically many competitive suppliers of solidarity in

democracies, including churches and other religious groups, youth gangs, unions and so on in modern democracies like those in North America and Europe. So from the supply side people do not have to turn to extremist groups to fulfill their desires for solidarity. To sum up, on the supply side, it seems that the most natural places for extremist groups to prosper is under tinpots and tyrannies.

Turning to demand, democracies provide the freedom for extreme groups to organize, for their leaders to publicize their cause and participate in democratic elections if they wish to, so long as they do not engage in violence. Typically democracies also find ways to satisfy at least some of the demands of even those who are deeply opposed to the government. That is one reason why Communist and Fascist parties have lost most of their appeal in western democracies. Totalitarian groups provide no such freedom, and because of their centralization of power do not feature institutions such as federalism or the division of powers which allow for the unbundling of the indivisibility which is central to the programs of extremist groups. However, the greater the power of the regime, the less likely a revolution against it will succeed,²⁸ and so we would expect that there would be little successful demand for extremist actions under a strong totalitarian regime.²⁹ Again, therefore, we expect that the demand for suicide terror is most likely to occur under tyrannies, or at least weak totalitarian regimes. So, on balance it would appear that both the demand for and the supply of suicide terror in particular will be largest under tyrannies or weak totalitarian regimes.

What does this mean for policy? One implication is that the US, in subsidizing tyrannies like those in Saudi Arabia, Egypt and Pakistan, is, in a world of globalized terror, effectively subsidizing the production of terror against itself. Indeed, it is interesting that many of the “outposts of tyranny” identified as such by US Secretary of State Condoleeza Rice in 2005 and therefore not entitled to subsidies – North Korea, Cuba, Zimbabwe, Belarus and Myanmar – are in fact totalitarian regimes, which typically do not engender terror³⁰. On the other hand, the attempt to remove either a tinpot or

²⁸ This argument is developed in more detail in Wintrobe (2004) and Wintrobe (forthcoming).

²⁹ See the references in the footnote above for a model of the power of a dictatorship and a discussion of the conditions which make totalitarian (and other) dictatorships weak or strong (powerful).

³⁰ The remarks of Rice are discussed in the *International Herald Tribune*, 2005/8/14. On the classification of regimes, see the independent classification of regimes by Islam and Winer (2004). Elsewhere (Wintrobe (2002), and forthcoming) I argue that it is no accident that Western democracies like the US are more likely

totalitarian regime through war neglects the fact that dictatorships, even tyrannies (especially when they are long – lasting), rule on the basis of support from their peoples and not merely by repression. The political scientist (and former Ambassador to the United Nations Jeanne Kirkpatrick did make the distinction between the two types of regimes(1982). She argued that the attempt to overthrow what she called a “traditional autocracy” (tinpot or tyrant, in my language) often simply resulted in the replacement of the regime by a totalitarian one, as she argued happened in Iran and increasingly looks to be the long run outcome of US policy in Iraq.

6. Conclusion

In this paper I developed a simple model to explain the demand and supply of extremist activity, and focused especially on three questions: Why are groups with extremist ideologies attracted to extremist methods? How can they motivate rational people to commit suicide to further the goals of the group? Does authoritarianism, either within the group or the wider polity, promote extremism?

I started with the idea that the basic difference between extremist methods of political competition and normal or accepted methods is that extremist methods are risky. Extremists in position adopt extremist methods when there is an indivisibility which characterizes the relationship between the intermediate goal of the group and its ultimate goal. In the paper I look at three examples which represent the three most common kinds of extremism in the twentieth and twenty- first centuries: Communism, Nationalism, and Islamic Fundamentalism. Metaphorically, in each case, the leaders of these groups are in the position of someone starting out at the beginning of a long desert at the end of which there is a mountain, and only when the top of the mountain has been reached can the group be said to achieve its goal. The longer the desert, and the taller the mountain, the greater is the temptation to use extremist methods. Moreover, the larger the indivisibility, the more the group will tend to be indifferent to sacrifices of human life by both victims and members, since the potential gains to the group from reaching its goals will be large

to make war with totalitarian regimes than tyrannies or tinpots.

compared to any conceivable losses.

On the other hand, extremists with divisible objectives – more income inequality, a cleaner environment, fewer abortions, fewer controls on guns – do not typically use extremist methods. And those who do, I submit, are those who tend to perceive an indivisibility, as in the case of anti-abortionists who see the fetus as a complete human being at an early stage of development, or those environmentalists who perceive a potential “catastrophe” and not a continuity in the level of destruction of the environment. Thus, once again, the use of extremist methods follows from a perceived indivisibility in the extremist’s position and is not a separate feature of preferences.

If correct, this argument would appear to raise a troubling challenge to liberal theory. Freedom of thought is central to liberal theory provided that democratic methods are used to pursue that goal. If there tends to be a correlation between extremist positions and extremist (non democratic) methods, then it may be difficult for the state to combat the latter without imposing controls on the former. Such laws are in fact in force in some countries as exemplified by laws against “hate” speech. But how far can one go along these lines and still remain democratic?

An alternative policy is to make the indivisible divisible. If one can un-bundle the goal or make the indivisible divisible, then there may be ways to provide these goals in a way which dries up support for the grander ambitions of the leaders of extremist groups. In effect this is how Keynesian economics dried up support for communism. In the same way problems of ethnic conflict have been solved in Canada and in many other states through institutions which give different groups a share in power. Thus features like federalism, the division of powers, checks and balances, features of proportional representation, etc. all give groups some power without satisfying what they thought was an indivisible objective. On the other hand, both domestically and internationally “carrot” policies like this should be combined with “stick” policies – various methods of deterrence of terrorist actions.

Turning to the behaviour of followers, I modeled them as motivated by solidarity. They trade their beliefs for a feeling of belonging-ness to a group. Small trades of this type do not result in unusual behaviour and indeed, most of us engage in such behavior all of our lives. However, at large levels, such trades imply that a person is more and more

giving up his identity for that of the group, perhaps as personified by its leader, and losing the capacity to make decisions based on values other than those of the leader.

Consequently, the choice of larger levels of solidarity may drive a person close to or at a corner solution where her values are entirely those of the leader. Such a person is capable of rational suicide for the goals of the group. Some implications of this view are that small price effects will not change the behaviour of the individual in question, and even very fairly large ones might not cause the person to revert to her old identity since he has given it up in exchange for solidarity. However, very large changes will cause a very substantial change, as is typical in the analysis of corner solutions.

Although such slavish devotion to the group is typically associated with cults, modern terrorist groups seem capable of producing such individuals even though they are relatively large and dispersed. The structure of Al Qaeda is not only hierarchical but cellular, and this facilitates vertical control under these circumstances. Finally, I suggest that authoritarian regimes rather than democracies or totalitarian regimes are the most likely sources of suicide terror.

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