

**The Dispossessed. Why well educated might act as they
have nothing to lose.**

By

Eva M. Meyersson Milgrom

September 25, 2009
Stanford

Contact Information: Eva M. Meyersson Milgrom, SIEPR and Department of Sociology,
Stanford University, Stanford CA 94305, eva@meyersson.com, www.meyersson.com

Abstract. Highly educated individuals are over-represented among violent operatives of insurgent organizations in the middle east. This suggests four inter-related questions: (1) Why do those who seem to have good prospects willingly endanger their own lives? (2) What incentives drive these highly-educated individuals to terrorist organizations in particular? (3) Why do sub-state welfare organizations turn violent? (4) Why do these organizations send so many highly educated, thoroughly dedicated members to their deaths rather than employing them in some other way? We answer these questions using a multi-disciplinary approach, organized in a supply-demand framework, to study the market for violent operatives. What makes this multi-disciplinary is its analysis of non-pecuniary motives, including especially the quest for personal significance. We show how the conditions of a failing state give extra salience to personal significance for highly educated but dispossessed individuals and raise their value as violent operatives, creating gains from trade between them and the leaders of extremist organizations.

One wants to be loved, and if not loved, then admired, and if not admired, then feared, and if not feared, then detested and despised. One wants to invoke some emotion in other human beings, because the soul is shivering in an empty space, and wants to be reached at any price.

Hjalmar Söderberg¹

Introduction

In the past, it has often been assumed that poverty was the main driving force behind terrorism. Insurgent organizations would succeed in recruiting suicide bombers from among the “poorest of the poor”: in any community, those almost entirely lacking other opportunities would be most susceptible to recruitment for extreme or violent action. Suicide bombers, the idea ran, would be those community members with “nothing to lose.” By contrast, those with more education, who could expect higher-than-average income relative to their communities, would be unwilling to sacrifice a “legitimate” career in order to participate in extremism. The public debate on terrorism has often been permeated by the assumption that people with “less to lose”—fewer market options—would be more supportive of terrorism and more likely to participate in acts of violence.

Recent studies have suggested that this assumption was wrong, and that poverty is not the main force driving participation in terrorism.² The evidence shows low income and education levels to be remarkably poor predictors of the decision to join an extremist organization; instead, the highly-educated—those with the highest earning potential in the legitimate job market—are over-represented among violent operatives such as suicide bombers (see, e.g. Krueger 2007, Krueger and Malakovich 2003, and Berrebi 2007). Indeed, the three best-represented professions among members of middle-eastern insurgent organizations are those of engineer, doctor, and natural scientist (Gambetta et al. 2007).³

¹ From the novel *Doctor Glas*, 1905. Translated by the author.

² The idea that poverty does not drive terrorism is valid on a country level too. There is no higher risk for support for terrorism in poorer countries than in richer, once factors like political freedom are considered. Instead, political freedom seem to be highly correlated with low risk of terrorism, but the relationship is non-monotonic, so that countries in transitions from authoritarian regimes moving toward higher levels of political freedom are more vulnerable to terrorism, (Abadie and Gardeazabal (2003), Abadie (2004)) In addition, Laitin and Krueger (2007) find that controlling for political regime there is little economic foundation for terrorist origins. The economic story for terrorism is in the characteristics of the target. The data suggest that the origins of terrorism are in countries that suffer from political oppression the targets are countries that enjoy a measure of economic success. (p. 4 (2007). However, the literature on civil wars suggests that competition for natural resource endowments and economic weakness are significant predictors of violence at the national level Collier and Hoeffler 2004, Fearon and Laitin 2003. of political freedom (Abadie 2004), a life under occupation (Pape 2003, 2005), and frustrated expectations (Gambetta and Hertog 2007) and loss of significance (Kruglanski et al 2007)

³ The most salient exceptions include the Saudi insurgency, which mounted devastating bomb attacks in 2003 and 2004, the LTTE in Sri Lanka, and the IRA and ETA separatist movements. The members of these come largely from among the under-educated and the working class.

This paradox cries out for explanation, even as it exposes the insufficiency of an income-based account of the incentives to extremism and points up the need for an interdisciplinary approach. As complex as any individual's motives undoubtedly are, the decision to participate in terrorism is still an occupational choice in a labor market where extremist organizations compete with "legitimate" firms to hire the best candidates, and a market analysis is still revealing, if we can look past income as the only value this market provides to workers. Thus this study draws on concepts from the social sciences while making use of a supply-and-demand framework. The first paradoxical question, then, is the incentives driving the supply side: why are many of those with the best career prospects, and thus the highest opportunity cost to terrorism, willing to sacrifice the benefits promised by their potential careers?

The difficulty of this question should not lead us to throw up our hands, as some would do, and abandon all hope of understanding and affecting the incentives of potential terrorist recruits. Krueger (2007), for example, concludes that ideological forces "dominate" economic forces in affecting the supply of terrorists, and advises against supply-side policies focused on individuals' incentives, while contradictorily hypothesizing that "the well-off and better educated are drawn to extreme positions." (47, Krueger 2007). Income or education taken alone explains little. But we shall see that social psychology can help define recruits' incentives in a more subtle way than income alone. This study develops the notion of *significance*, rather than income, as the incentive that drives workers' job-market choices, and considers how individuals with different levels of education may compare their situations with different reference groups. Unlike income, significance can account not only for the lowered opportunity cost to terrorism, but also for positive expected benefits. A job-market model based on significance can go a long way toward explaining the observed trends, without recourse to differential ideological profiles associated with certain levels of income or education. Taking significance rather than income as workers' incentive thus reanimates the question of how policy might undermine the incentives and reduce the supply of potential terrorists.

The demand side offers an incentives paradox, too. Though the underappreciated complexity of terrorist missions goes a long way to explaining why extremist organizations send many highly-educated, thoroughly-dedicated members to their deaths rather than employing them in some other way, it is crucial to note that many of the world's major terrorist organizations are outgrowths of community-aid organizations, originally founded to supply basic services to communities deserted by a failing or corrupt state. This trend raises the economic question of why such organizations turn to terrorism: what competitive advantage extremism can offer to a community-aid organization in allowing it to attract and retain membership, support, and power?

Hypothesizing that organizations compete with the state and one another to define and allocate the significance that individuals seek, we find that, though extremism incurs a cost to the organization (by alienating moderates and clashing with government), it can also provide benefits. Not only does the opportunity cost of institutional extremism decline under a weak state, but its positive benefits to the organization increase, improving its ability to attract members and funding, maintain influence, and compete with other organizations. This study reviews several social and economic factors affecting the costs and benefits of institutional extremism as it competes in the labor market to "hire" the best recruits.

The first two sections below are devoted to the supply side of the question. Extending the usual economic analysis, these sections investigate the incentives of highly-educated potential recruits, who are assumed to value income *and significance*, to commit to and carry out suicide bombing missions. Individuals' incentives are considered from both "negative" (opportunity cost) and "positive" (benefit) perspectives. The third and fourth sections focus on negative and positive incentives on the demand side: the decision of community-aid organizations to turn to extremism, and to use their most valuable members for suicide missions.

The fifth considers the all-important interaction of supply- and demand-side factors, and locates the explanation of the original paradox therein: the overrepresentation of the highly-educated among suicide bombers is likely to be driven by the unique gains from trade (with significance as a crucial component of individual value) that exist, under conditions of the breakdown of the state, between a highly-educated but dispossessed individual and the leadership of an extremist organization. Under such conditions, each comes to value what the other has to offer in a way that subverts the expected preferences. This pattern is revealed by the observed behavior of both individuals and organizations, and the study closes with a consideration of its implications for policy decisions.

It is now clear that income alone does not drive terrorism, but policy makers still must not proceed under the idea that terrorism, and especially the career-decisions of individual operatives, are motivated only by ideology and revenge. Though individual psychological and ideological motives undoubtedly play an important role in terrorist violence, a comprehensive look at the labor market for terrorism indicates that rational (though not strictly pecuniary) incentives may still play a major role on the supply as well as the demand side, and that policy cannot ignore them on either. A corrupt labor market can undermine the state's ability to confer significance on its members, leaving them in need of significance and putting sub-state extremist organizations in a better position to provide it. If this trend is part of the problem, then understanding and reversing it must be part of the solution.

I. Supply Side (I): Significance, Comparison Theory, and the Opportunity Cost to Extremism

I.1 The Opportunity Cost to Violence

The explanation that those with "nothing to lose" are the most likely potential violent operatives is simplistic and false, but places a valid emphasis on the importance of the *opportunity cost* to becoming a terrorist operative. Those with fewer other choices, whose opportunity cost is lower, should be more likely to engage in violent insurgency.

In Saudi Arabia, for example, where unemployment is relatively low, we see less recruitment to organizations with political violence on their agenda. Gambetta and Hertog (2007) argue that Saudi Arabia is an exception to the Middle Eastern rule of the overrepresentation of engineers and doctors among violent operatives precisely because the Saudi labor market is healthy, making their opportunity cost to violence is higher: many Saudi engineers get jobs in Saudi companies, and so did many Palestinian engineers before 1990. After the Gulf war, however, Kuwait, Saudi Arabia, and Israel closed their borders to Palestinian workers.

In the job market view, then, the paradox is then this: how can organizations offering the opportunity for a virtuous suicide compete in a “hiring war” against those offering higher economic status? What are the incentives allowing insurgent organizations to steal young doctors and engineers from their original professions? Why is being a suicide bomber for an insurgent organization preferable to being a doctor, even for a relatively poor hospital, or to working as a mechanic or plumber, despite having been trained as an engineer?

Marx and Engels famously theorized that the driving force behind revolution is not the poorest of poor, or *lumpen proletariat*, but is rather the dispossessed middle class, precisely *because* it has more to lose (see, e.g., Davies 1962). However, it is not only the poorest of poor who may perceive themselves as having “nothing to lose.” At the same time, those with much to protect have their own incentives to join the kind of organization that may demand violent action from its members (Berman and Laitin 2008; Friedkin 2004; Iannacone 2006; see Victoroff (2005) for a survey on socio-psychological theories of “terrorism.”).

I.2 Income and Education

Considering income and education separately is the first step on the path to deeper insight into the incentives driving individuals’ decisions to join terrorist organizations. In successful economies, education and income are usually highly correlated, but the difference between them is important: individuals with a combination of high education and low income are the greatest proponents of violent tactics such as suicide missions, even within communities that support extremism (Berrebi 2007; Jasso and Meyersson Milgrom 2004). Jasso and Meyersson Milgrom (2004) studied the complete results of the poll of the Palestinian community’s attitude to the “road map to peace” in 2002, and the data yielded several surprising and counterintuitive results. First, in that community, education and income are not highly correlated, indicating a malfunctioning of job markets. Women, individuals with higher education, and younger people are more prone than others to support violence, though the study also finds strong regional variations in the support for violence, particularly across the five governorates of Gaza. The data also indicated the more intuitive, less surprising result that individuals with higher income are less prone to support violent solutions. Other research, though, suggests that community support for political violence is stronger among more-wealthy individuals (Berrebi 2007, Fair and Shapiro 2008),⁴ or among those who have witnessed more improvement in their economic conditions.⁵ The breakdown in correlation between education and wealth is also a social force driving the educated to extremism, as we shall see below.

The shrinking of education’s income-advantage, however, still cannot explain why so many who have this advantage are willing to sacrifice it, nor can it answer the “positive-incentives” question of what *benefit* recruits obtain from committing to and carrying out suicide-bombing missions. That *anyone* chooses to carry out suicide missions indicates, in an incentives model, that being a suicide bomber has some positive

⁴ The exceptions to these findings include cases in Iraq and Afghanistan of the recruitment of very young, very poor operatives.

⁵ See Fair and Shapiro (2008) on Pakistanis’ perception of their own support for political violence: respondents suggest that support for militancy comes not from those who are falling behind economically, but rather from those who see their nation’s economy as pulling away from India’s.

value. This cannot be income, for suicide bombers sacrifice *all* future prospects of *any* income. Income alone, though, cannot fully account for the value of any career, whether doctor or suicide bomber.

I.3 The Idea of Significance

Traditional economics models alone cannot capture the richness of the mechanisms at work, for workers' incentives and costs are not merely financial; equally central are non-financial components of social value. Integrating approaches from social psychology are thus indispensable. The greater the value of a professional career, the higher the opportunity cost of doing anything else; the lower the value, the more likely one is to accept this cost and choose some alternative. But social value, along with income, is central to determining these values and costs—these incentives.

Arie Kruglanski's (2007) notion of *significance* provides an excellent basis for modeling this social-psychological "currency." This work suggests that a traditional tripartite classification of terrorists' motives—ideological, personal, and social—is insufficient because it is descriptive rather than analytical, and because it stops short of explicating the underlying dynamics of suicide terrorism. Alienation, pain, and trauma could foster numerous nonviolent activities (Kruglanski et al. 2007).⁶ Instead, such research suggests a deeper motivational structure that may afford a common understanding of numerous disparate phenomena, and can suggest how the various motive-categories identified thus far may functionally relate to each other.

Significance is here envisioned as something that is lost, and must be regained, when an individual undergoes a security-undermining trauma, such as losing a family-member to violence (cf. also Spekhard and Akhmedova 2005) or, as suggested below, experiences feelings of relative deprivation or frustrated expectations in situations of political, social, or economic inequality. The *significance-quest* is proposed as an overarching motive propelling suicidal terrorism, recalling Frankl's suggestion that "self-transcendence is the essence of human existence" (Frankl 2000 quoted in Kruglanski et al. 2007). Individuals often seek to regain significance by contributing to some communally-defined *collective good*: below, we shall consider how collective goods are determined, and significance lost and won, especially when the central state's economy and government are destabilized, and its ability to define the common good thus undermined.

Along with preference-indicators like income and related quantities like education-level, a quantification of significance is of proven relevance in modeling the incentives at work in a job-market decision between a professional career and the life of a terrorist operative. It must not be ignored as a job-market incentive, not least because, even if income is a component of significance, the two can be substitutes. In this way, significance bears comparison to work on the related notion of *status* in the job market, where workers sometimes prefer higher status even at lower pay, implying the substitutability of status and income (cf. footnote 5 above and see, e.g., Kwon and Meyerson Milgrom 2009).⁷ As a measure of value, significance operates much like

⁶ See Sageman (2004) on the quest for social support, Pape 2005 and 2003 on liberation from occupation, Hassan (2001) on promises of the afterlife, Bloom (2005) on honor, loyalty, coercion, humiliation, and other psychological issues, and cf. Stern (2005).

⁷ It is impossible, of course, to measure significance precisely. Instead, we assume that feelings of significance correspond with the related notion of *status*—one's standing, relative to one's community or

status: because of the substitutability of significance and income, a shortage of the latter increases the demand for the former, so the notion of significance may offer not only a way to relate diverse psychological mechanisms, but also a means of analyzing and predicting empirical effects according to an incentives model.

Socially-constructed and -determined significance is, like income, a crucial component of an individual's incentives, as well as sharing other attributes with wealth. Wealth and status, of course, are not absolute quantities, but rather must be set relative to some *reference group*.⁸ Thus the same quantity of, e.g., income may translate to different status-levels, depending upon the community with which that quantity is compared. Differing reference groups can have a tremendous impact on the perceived value of a career as measured in terms not only of income, but also of status and significance, so education levels may affect reference group comparisons in a malfunctioning job market, eroding the assumed correlation between income levels and significance levels.

I.4 Loss of Significance Through Relative Deprivation

Relative deprivation theory seeks to account for frustration and the conditions under which it motivates people to individual or collective action. When evaluating how much of some good they have, people compare their holdings not to any absolute standard, but rather to what others around them have.⁹ In a job market plagued by clientelism, non-merit-based allocation of jobs produces differences even among those with similar qualifications or educational backgrounds peers, inviting unfavorable comparisons and feelings of relative deprivation.

Another mechanism suggested by the literature, *frustrated rising expectations*, involves a comparison between the individual's actual and expected situations based on the expected return to a decision, investment, or sacrifice the individual has made, such as the decision to complete a professional degree based on the expectation that it will lead to increased earnings, security, significance, or status (see 63, Gambetta and Hertog 2007, for a discussion). This frustration, which has been proposed to lead to aggression, is greater the closer the goal, suggesting another reason why extreme poverty fails to correlate with insurgent violence.

But such frustration may be caused by a sudden economic downturn due to causes other than corruption, where everyone's investments in education may suddenly lose their expected value, whereas the notion of relative deprivation best describes the effects of corruption rather than mere economic failure, when labor markets malfunction due to clientelism and discrimination, discrediting the state and providing an opening for sub-state club-type organizations to provide not only material aid, but also to take over the

reference group (see below) with respect to a socially-defined good or a bad—and hence that a change of status will correspond to a change in significance. Unlike significance, status can be empirically measured, when defined with the help of detailed occupation-codes unique to that data-set (see Jasso 2000 and Kwon and Meyersson Milgrom 2009 for the theory and an application, respectively, of measuring status).

⁸ A *reference group* is a sociological concept referring to the community group to which an individual or another group is compared, and relative to which the individual is ranked according to some socially-defined good. (See Merton and Rossi 1950; Robert Merton 1957; cf. also Stouffer et al. 1949; , Festinger 1954; Thibaut and Kelley 1959; , Homans 1974; Blau 1964; Sherif 1968, Zelditch 1968; Berger, Zelditch , Anderson, and Cohen 1972; for two excellent overviews, see Jasso 2002 and Jasso 2000.)

⁹ These ideas date back to Aristotle and Tocqueville. (See also Robert Merton 1938, Karl Polanyi 1947, Davis 1962, Gurr 1970, Stouffer et al. 1949, and overviews in Gambetta et al. 2007 and Jasso 2002.)

authority to define collective goods, and thus function as competing sources of significance.

Though no social-psychology construct can capture the entirety of an individual operative's motives¹⁰ (indeed, the motive may come *after* the action as a rationalization—see Elster 2005), relative deprivation suggests a mechanism driving not only political or ideological frustration, but also the loss of significance. And a shortage of significance under a corrupt job market makes the alternative significance offered by extremist organizations more valuable.

The economic conditions for Palestinian students after they graduate exemplify not only frustrated expectations, but also relative deprivation: decreasing returns to schooling and an increasing supply of graduated students have been ongoing trends in Palestinian society since the beginning of the 1990s, which has led sometimes a *negative* correlation between education and income. Growing and selling tulips generates more income than a career in economics or engineering. Palestinian students who enrolled when the wage premium of a university education was 40 percent ended up earning less than 20 percent more than high school graduates in the early-90's labor market (see Angrist 1995, 1996, 1998), and conditions have worsened since 2000.¹¹ Labor markets in Pakistan, Egypt and Sri Lanka exhibit similar traits, although to a lesser degree than the Palestinian territories.

The empirical observation that members of certain professions become more easily radicalized than others prompts Gambetta and Hertog (2007) to propose two interacting mechanisms at work: first is the *selection* of students with certain cognitive traits to certain courses of education (such as engineering and medicine). Second is the malfunctioning Palestinian labor market (a source of relative deprivation), dominated by Arafat's monopolistic business empire, as well as a clan mentality in the allocation of jobs (see also Napoleoni 2005). The attempt to link cognitive traits with career choices, though, is problematic but not necessary. As Elster (2005) points out, beliefs ingrained by socialization do not necessarily lead to action, and may not in themselves be motivators (although the Hobbesian case is an example of beliefs as direct motivator—for instance the Hutus in Rwanda who may have believed that the Tutsis were going to kill them if they did not kill first (Gourevitch 1999)). But beliefs and ideological justification can come after a choice of action motivated, for instance, by the quest for significance. The effects Gambetta and Hertog describe may be motivated not by the nature of a given profession, but by the other social relationships it correlates: here again, as in all determinations of wealth, status, and significance, a comparison is crucial, whether against similar peers or similar expectations.

Note that we need not posit that a loss of significance through relative deprivation or frustrated expectations leads to violence or aggression, only that it leads to the need to

¹⁰ Pape (2005) claims that "...egoistic and anomic motives are insufficient ... Altruistic motives, either alone or in conjunction with others, likely play an important role"; Pedahzur (2005) argues for different motives in different cases.

¹¹ Restricted job opportunities started already around the Gulf War when Kuwait expelled around 400,000 Palestinians because Arafat's alignment with Saddam Hussein. This has been the trend in other countries where Palestinians had labor market opportunities, for instance Saudi Arabia, that have an ambition to go domestic. The Israeli labor market was closed from 2000. Before the Gulf War 30% of Kuwait's population were Palestinians. In 2006 less than 3% were, i.e., 40,000. See also Gambetta and Hertog 2007 on the relative importance of the functioning of labor markets in the West for Muslims and in Saudi Arabia

regain significance by contributing to communally- or organizationally-defined collective good. Organizational incentives to the establishment of violent collective goods are taken up again in section IV, which explores how economic collapse due to political corruption promotes these organizations to become more extreme in their strategy and tactics.

I.5 Comparison Theory: Effects of Reference Groups on Significance

We noted the paradox that the highly-educated, who have a wider range of career possibilities and whose absolute opportunity cost of violence is higher than the uneducated, often behave as though their opportunity cost is lower. We see that, adjusted for the comparison of expectation and actual outcome and in comparison with reference groups, it is lower.

The *reference group* is a standard concept in the sociological literature on comparison theory (see footnote 6 above, as well as Merton's analysis of reference groups, Stouffer et al.'s application to American soldiers, and Jasso 2002 for an overview of the literature on comparison theories).¹² In a status-comparison, those who lose out relative to their reference group will exit the group; but an individual may have more than one reference group relative to which he or she might make the comparison (Kwon and Meyersson Milgrom 2009). We cannot measure absolute status or significance, but we can observe loss of status or significance within the community or reference groups, whether this group is a geographical community, a cohort (a group of workers who enter the job market at the same time), or all those who share a given occupation.

The resolution of this version of the paradox is that the absolutely higher opportunity cost for highly educated individuals is offset by a difference in reference groups. *Relative deprivation*, as the first word of the phrase suggests, implies a reference group, in comparison with which the individual's relative standing vis-a-vis a good or a bad will influence the sense of just outcome. A sense of injustice will create a loss of significance. Differing reference groups can account for the paradox that highly educated and higher-earning community members can experience lower (perceived) significance than their poorer neighbors. Since the value of a given absolute income- or significance-level depends upon the group with which an individual compares his or her own situation, the salary and significance of an engineer or doctor in a malfunctioning job market, when compared to a reference group of fellow professionals, may rank lower than that of a manual worker compared to the reference group of the worker's own immediate community. Differing reference groups for the more highly educated affect the relative, as well as the absolute, magnitude of the significance an individual loses through relative deprivation. This analysis predicts that, holding income constant, education would correlate negatively with significance, creating a personal desire to restore significance.

The rate of income-returns and significance-rewards of a professional education cannot keep pace, in a malfunctioning market, with the rate at which education raises the candidate's expectations and the absolute level of income and/or significance that they must attain to achieve relative satisfaction. This occurs to such a degree that the

¹² Important developments of the concepts included the ideas of referential structure proposed by Berger, Zelditch, Anderson and Cohen 1972.

opportunity cost of violence for a disappointed young professional may appear *lower* than that for one of the “poorest of the poor.”

The poorest of the poor, of course, are no less motivated by significance than are the more educated: relative deprivation may be experienced by individuals at any level of income or education. Still, the most powerful lack of significance is reserved for those with more of it to gain and to lose—the most powerful incitement to violence is not mere lack of significance, but rather *loss* of significance. One thinks of the fall of Lucifer, or the old saying: “The bigger they are, the harder they fall.”

II. Supply Side (II): Significance and the Value of Signal Sacrifice

"Clearly the act is not just about dying and killing. The expectation of gaining status and respect as a martyr for the cause is important, so that individual action is linked to anticipation of both popular approval and collective political success." Sacrifice for the cause is both personally redemptive and a mark of honor, a way of becoming a hero and part of an exalted elite. It contrasts sharply with an otherwise insignificant or disappointing life. (Crenshaw, quoted in Kruglanski et al. 2006)

Considerations of significance and reference group shed light on the first observed paradox: why those with more education or income-opportunities may behave as though they have less to lose (i.e. a smaller opportunity cost) by sacrificing the prospects of a “normal” life and career in order to seek an alternative source of significance. We have identified mechanisms that may make the loss of significance more devastating for those with more to lose. We can see why they may be prepared to sacrifice the devalored significance-opportunities associated with their potential professional careers, in the hopes of finding better significance-opportunities elsewhere, even if it means sacrificing their very lives. But the paradox of violence remains: how a career as a violent operative be preferable in terms of significance to a career as, say, an underpaid physician serving underprivileged patients in one’s community?

II.1 Significance and Sacrifice

Kruglanski et al. (2007) draws on recent analyses of human-motivation theories to explore how the biological need for physical survival is intimately linked to the quest for personal meaning and significance, and how the latter stems from the threat of personal insignificance caused by humans' awareness of their own mortality. It is ultimately "the nightmare of ending up as a speck of insignificant dust in an uncaring universe" (Kruglanski et al. 2007) that motivates people to become good members of society by doing well in culturally prescribed ways. In this respect, the readiness to sacrifice oneself for the group in an hour of need stands as a supreme good. In addition to the promise of immortality, heroism, and martyrdom, committing to such a sacrifice brings an influx of scarce, valuable significance.

Operatives’ feelings of heroism are not merely the hope for posthumous notoriety. Elias Canetti’s (1960) notions not only of heroism and power, but even of survivorship, are relevant to the case of a violent operative. For Canetti, “The moment of survival is the

moment of power,” and the primal passion of the hero is to stand as lone survivor among heaps of the dead. The violent operative may seek significance in setting out on precisely such a “heroic” quest, for “the essence of the situation is that he feels *unique*. He sees himself standing there alone and exults in it; and when we speak of the power which this moment gives him, we should never forget that it derives from his sense of uniqueness and from nothing else.”

Emile Durkheim (1951) analyses *altruistic suicide* as a willing sacrifice for the collective good, and proposes that such an extraordinary sacrifice can only occur in high-solidarity groups, so that it is precisely in the most cohesive groups that we will see altruistic suicide. Solidarity here means positive sentiments derived from repeated, mutually-satisfactory interactions (for a discussion see Heckathorn 2004). We have seen the strong supply-side incentives for the dispossessed to attempt to regain significance through ultimate sacrifice, but the paradox persists from the demand side, because the high levels of social cohesion that make altruistic suicide possible also strengthen incentives for group members to prohibit suicide (Heckathorn 2004). This points up the paradox, addressed in section III, of clubs’ defining their own members’ suicide as a path to fulfillment of the collective good.

II.2 Sacrifice and Signal Commitment

Another idea is that sacrifice is sometimes necessary to signal commitment. Iannacone (1992) argues that when club members face heterogeneous opportunities, a sacrifice (such as giving up the prospect of a professional career) can be explained as a costly *signal of commitment* to the community (or, equivalently, as a signal of relatively poor options outside the club). A sacrifice serves as an initiation rite and an investment, granting membership and access to the benefits of club membership. As a contribution to the organization-defined collective good, the sacrifice (of, e.g., future income) may actually carry a positive significance-value.

From the perspective of recruits’ incentives, the extremity or moderateness of groups, actions, and tactics may almost be defined by the opportunity cost of participating in them; extremism owes much of its value precisely to the cost it has exacted. By requiring more extreme signal commitments and thus demanding greater sacrifices (i.e. carrying a higher opportunity cost), membership in an extreme organization or participation in an extreme or costly action may bring more significance than is associated with moderate ones.¹³ When significance is scarce, competition for the limited resource drives up its price, requiring extreme actions to “buy” significance from the organization. High-cost sects are also appealing, Iannacone (1992) argues, because they provide a setting and structure in which normal but unsatisfied wants and needs can be fulfilled. Iannacone (1992) notes that, regardless of religion, extremist sects constitute faith-based communities, dedicated to the production and pursuit of valuable communal goods and goals; benefits of membership include hope for the future, benefits for the present, and insurance against misfortune.

But if poverty does not by itself make suicide bombers, then neither does frustration, lack of opportunity, humiliation, personal suffering, or loss of social significance (Kruglanski et al., Krueger 2008). In Japan, for example, when

¹³ Studies have shown that the same wine lights up more synapses when tasters believe it is more expensive; it *really does* taste better (i.e. our brains tell us we enjoy it more) even if it tastes the same.

unemployment runs high the *suicide rate* increases (Koo and Cox 2008), but there is no increase of political violence,¹⁴ although the unemployed might experience grave loss of significance. The choice of suicide-exit might be culturally determined, but may also be determined by the lack of an alternative to restore significance. Even assuming a positive correlation between the cost of any action and its significance-return, we are still left with the question why participation in a *violence-prone* organization may offer more significance than equally costly, but less violent, alternatives. (see Benmenelch and Berrebi , 2007 for related discussion). Why not some other form of self-sacrifice: charitable self-abnegation, spiritual asceticism, or some other practice accompanied by a promise of eternal salvation or other rewards in the afterlife? Why not donate the devoted, life-long practice of their professional skills to the organization? Why not become a volunteer doctor, contribute one's engineering skills to the construction of housing in destitute communities, or even serve as a firefighter who is unafraid to face certain death in order to rescue an endangered child? How can violence, and especially suicide missions, offer the dispossessed individual a level of significance that other paths cannot seem to match?

The resolution to the paradox is ultimately this: it is not the operatives that defines the collective goods, violent or otherwise, capable of conferring significance; rather, these must be defined by the leadership of an organization, community, or social group with the *authority and incentive* to do so. Under a strong, economically successful government, the state retains this authority, but we shall see that a failed state causes this authority to pass to welfare organizations, and that the same failed state prompts the educated to join welfare organizations.

It remains paradoxical, though, that it should profit an organization and its community to define members' suicide as a significance-conferring collective good. A social group whose survival is based on solidarity surely has strong material and emotional incentives to prohibit suicide among its members (see Hechathorn 2004 for discussion), so we must ask what advantage, beyond completing insurgent attacks, organizations gain by sacrificing their members. This leads us to the preferences and incentives of the organization and its leadership. And we must realize that, no matter how beneficent, among the organizations top priorities must be its own continued existence: it must compete with the state and other organizations for members, and its leadership must work to *stay in power*.

III. Demand Side (I): The Emergence of “Clubs” and the Reduced Opportunity Cost to Extremism in a Weak State

The first section argued that not only income, but also significance, is a major incentive driving the “job-market” decisions of potential suicide bombers, and noted how comparisons according to reference groups outside the immediate community may exacerbate the frustrated expectations and relative deprivation of the highly-educated in terms of both income and significance, thus diminishing the opportunity cost of violence.

¹⁴ Things are never so simple, of course: Shoko Asahara, founder and leader of the group Aum Shirikyo, killed twenty-five people using sarin gas in the Tokyo subway, providing an example of what “terrorists” can do in Japan.

In the second section, our account of the positive side of individual incentives suggests how recruits obtain value by committing to the signal sacrifice of their own deaths as suicide operatives. But it is the extremist organizations themselves that not only trade in, but also create, the significance that recruits seek. Having considered the supply side of our “job-market” model, we switch our focus to the demand side to consider the characteristics and structures of the organizations that coordinate insurgencies.

Some researchers have suggested that the general paradox of the overrepresentation of the highly-educated can be explained as a purely demand-side phenomenon. The idea is that the preference of extremist leaders for higher-quality members leads to much more aggressive recruiting among the educated, and that leaders' preference for skill may alone drive the overrepresentation (Ethan Bueno de Mesquita 2005). The evidence shows that organizations like Al Qaeda, Hamas, and Hezbollah have a strong preference for highly-educated, as well as highly-devoted, members to carry out suicide missions (Gambetta and Hertog 2007, Benmelech and Berrebi 2007; Benmelech et al. 2009, Krueger 2008, Krueger and Malackova 2003). Gambetta refers to Zawahiri's statement that his organization prefers engineers simply because they are both skilled and easy to discipline (see Gambetta and Hertog 2007, and cf. page 43, *Sunday New York Times*, 10 July 2005).

Still, this is merely one of the potential demand-side factors, and the organization's paradoxical sacrifice of its best members invites more basic questions: What social and economic conditions drive club-type organizations to form, and what drives some of these to move towards extremism¹⁵ and violence? We shall see that club-type organizations often form not only in response to political conditions, but also to fill economic needs. This section focuses on the emergence of clubs in a weak state, noting that such conditions reduce the costs of opposing the state, attracting members, and providing significance. These reduced costs to extremism combine with the benefits considered in the next section, including how the tendency to extremism may correlate with other valuable organizational characteristics, and how signal commitment can serve as an alternative way to “tax” members.

III.1 The Economically Weak State and the Emergence of “Clubs”

The state is often the entity providing public services. In the absence of stability, predictability, lawfulness, and social peace, a void appears for other entities to fill. When the state is sufficiently weak, a *club*-type organization may arise to take on the functions that can no longer be provided by a state perceived as weak, failing, corrupt, or “selling out” (see Berman 2000 and Berman and Laitin 2007 for theoretical discussions, and Matthew Levitt 2006 for an empirical illustration).¹⁶ The club works as a “state within the state,” providing indispensable public services.

¹⁵ Unless explicitly applied to an individual leader or member, then, the notion of “extremism” below refers not to any individual's orientation or beliefs, but to an organization's revealed preferences. These preferences are its tactics; they are revealed by costly, coordinated, extreme actions, and by the organization's willingness to spend its resources to acquire quality personnel to plan and execute its missions.

¹⁶ Hamas, founded by Sheik Hassan Yusef, is composed of three integrated sectors or wings: the social welfare wing, the political wing, which also manages the group's public face, and the military wing, engaged in covert activities such as executing suspected collaborators, surveiling potential targets,

Membership in such a club is most attractive when neither government nor markets function well, when public safety and order are lacking, welfare services are poorly provided or absent, and neither public nor private sectors efficiently deliver education, health services, or insurance. When the state fails thus, a club may step in to provide what the state cannot. Clubs win support not only by fomenting ideological opposition and capitalizing on political discontent, but also by fulfilling legitimate community needs. And the members of a community require not only public services like healthcare, but also the opportunity to attain significance. This in turn requires a community with the unity and authority necessary to confer significance, an authority that tends to devolve onto clubs in a weakened state.

In the weak Palestinian state, for example, Hamas funded hospitals, employing doctors and nurses who would likely otherwise have been unemployed, and provided communities with health clinics, schooling, study groups, sports clubs, orphanages, etc. (see Levitt 2006).¹⁷ Hamas uses *dawas*, communal social activities at the grassroots level, to “reshape the political consciousness of educated youth, and in areas lacking social welfare providing social services has become a tool used by Islamists to radicalize and recruit Muslim youth. For instance, a Palestinian Christian from Bethlehem suggested that Hamas attempted to buy votes in the election via *dawa* activities: “‘You’d wake up in the morning,’ a woman explained, ‘and find a box of staples like oil and sugar here on the sidewalk’” (Levitt 2006). By the time Hamas turned to systematic violence, the Palestinian Fatah had long been corrupt, and unable to guarantee health, safety, or a functioning labor market (Ricolfi 2005).

In addition to the economic situation, though, the value of Hamas’s strong signals of commitment to the public good¹⁸ were increased not only by the economic situation, but also by the government’s tendency to clientelism, and the perception that Arafat had sold his people out in the 1994 Oslo Accord. For the state functions taken over by the club include not only providing material public services like health care and education, but also assuming the social authority to define *collective goods* for its community, thereby creating an arena in which significance can be sought. Performing or contributing to a collective good is a prime way of trying to regain significance after trauma, and it is the organization that designates what acts of sacrifice contribute to the collective good.

III.2 The Economically Weak State and the Declining Opportunity Cost of Institutional Extremism

When the “legitimate” job market has broken down and weakened or even reversed the expected relationship between education and income, the highly-educated dispossessed

procuring weapons, and carrying out guerilla and terrorist attacks. Overseeing Hamas activities is the *Majlis al-Shura*, or consultative council, the group’s overarching political and decision-making body in Damascus. The delegates to this body include Gazan leader Marzook (originally a professor at George town University in USA), and Khaled Mishal, leader of the Kuwaiti group from the West Bank. Internal leaders are overseeing activities in the territories while the external leadership is headquartered in Damascus (see, e.g., Levitt 2006 and Mangus Ranstorp)

¹⁷ The Islamic tradition has a notion of service to God through the obligatory propagation of *Dawa*, true Islam (Levitt 2006). In the relatively extreme Sunni group, for example, the pure Islamic practice of *Dawa* is seen as a protecting *Umma*, the Islamic community or nation, from irreligious rulers.

¹⁸ Signals of commitment were also crucial for other organizations filling that void, including the Palestinian Jihad (See Bloom 2005 and Mishal and Sela 1998).

are eager to trade their surplus of commitment for the sort of significance that takes its value from the sacrifice made to obtain it. And this is just the sort of significance extremist organizations have to offer.

In states plagued by political corruption as well as economic difficulties, clubs provide not only opportunities to contribute to peaceful public goods like schools and health services, but also define more extreme public goods that in order to coordinate and exploit people's increasing frustration. The government of a "failed" state, one whose weak markets are further disabled by catastrophe or corruption, loses credibility not only for its economic failures, but also for its apparent betrayal of its people's nationhood, ideology, etc. The discrediting of the state as a provider of public services and security, and the resulting vacancy in control, prompts clubs to accept the costs of extremism for the potential return of acquiring authority to define the collective good and distribute significance.

But institutional extremism is less of a risk in a weak economy, and especially under corruption. A club organization's opportunity cost to extremism may be less, for example, because of a weak government's inability to punish violence. The advantages associated with moderateness for the organization involve its ability to coexist and cooperate not only with the state, but also with its members' alternative sources of significance—their "mainstream" lives outside the club. As these lose value, the normal advantages of moderateness fade not only for individuals, but also for the clubs that seek them as members. We have seen why the highly-educated in a failed state may be attracted to the significance-laden sacrifice fostered by extremist signal commitment, and how the benefits of extremism in attracting elite members can come to outweigh the costs. Clubs may be more likely to become extreme in a failed state simply because the opportunity cost of doing so is less.

In the relatively weak Pakistani state, organizations like al Qaeda and Tanzeem provide many crucial public services, and their promises to provide security and protection, as well as their pledges not to sell fellow Muslims or Pakistanis out to foreign powers, enjoy more credibility than those of the government (Shapiro et al 2008). Pakistan's labor market has been unable to absorb the graduating students, and this capacity continues to deteriorate (Arif, Khan Kiani and Sheikh 2002). Even well-to-do Pakistanis, for example, may not trust the civil political government to protect their increasing or newly-attained wealth and status, and may instead support violent organizations such as the transnational group al-Qaeda or the local *askari tanzeems* (militant groups active mainly in Kashmir, but also involved in sectarian violence: see Fair and Shapiro 2008).

Though economic failure promotes the emergence of clubs, organizational violence is induced by corruption in states with asymmetric welfare services among its citizens: such has been the case in Palestine under Arafat (Ricolfi 2005), with the Sri Lankan Tamil Tigers (Hopgood 2005), with Venezuelan clientelism (Miguel et al. 2009), and in ethnicity-based Rwandan societies (Gourevitch 1999), all cases where corruption, in addition to economic hardship, created conditions for relative deprivation and hence loss of significance. Even in strong states like Egypt, Saudi Arabia, Germany, and the U.S., some people leave their regular communities to join club-type organizations that provide public goods to their communities, but clubs or sects in such strong countries are much less likely to turn to violence than those in failed states, though we might surely

learn much from exceptions such as the ETA and IRA, Saudi Arabian and Egyptian “brotherhoods,” the Baader-Meinhof in Germany, and the Weathermen and Black Panthers in the U.S. (see Kalkyvas and Sanches-Cuenca 2005).

Even when extremely costly, though, extremism may offer other advantages to the leadership of a club that hopes to be a serious competitor in the significance-providing arena.

IV: Demand Side (II): Club Leadership and the Tendency to Extremism

The previous section focused on the reduced cost of extremism in a failing state, and the conditions under which sub-state club organizations step in to fulfill functions the state can't, providing not only economic relief, but also taking over the function of defining collective goods for the community, and thus controlling a primary source of regaining lost significance. This section looks at the potential organizational benefits of extremism, considering several aspects of the leadership of autocratic organizations that have been identified in the literature. Focusing first on the organizational mechanisms used to attract, retain, and control members, and second on common characteristics of the individuals that lead such organizations, we see that, in both areas, extremism or characteristics linked to extremism offer potential advantages to clubs competing with the state and with one another for people's support. These advantages combine with other supply- and demand-side incentives to create the significance-value from trades between individuals and organizations that, along with ideology, drive terrorism.

IV.1 Control Mechanisms

Leaders of autocratic organizations need to control their members, and defining collective goods is *the* major means of creating significance-value, which attracts and retains members. But it is leaders' need to protect themselves from internal threats and external shocks, in order to stay in power and in control, that drives their leadership strategy choices towards defining violent collective goods.¹⁹

Leaders may keep control of their organizations by constantly redefining the signal commitment or dues required of members, preventing individual members from regaining control. The non-monetary membership dues paid by individuals and communities can take many forms. Requirements may begin with stricter adherence to religious traditions, but later include providing operatives, maintaining safe houses, hiding weapons, etc. This element of “duty” makes extreme commitments easier, perhaps by supplying significance in proportion to the cost of the commitment. The recruiter of female suicide bombers recently captured by the Iraqi police is vivid illustration that, today, both women and children are committing to the sacrifice of their lives in return for the significance this commitment carries with it among their communities.

The collective good serves as a sort of lifeline for the individual. When the authority to define it resides with the leadership of a club, continually redefining it works

¹⁹ Competition between organizations can be harsh, but they may also choose to collaborate (see Levitt 2006). Hamas and PIJ were fierce rivals during the 80s and early 90s, but largely collaborated after the 1993 Oslo Accords.

to deindividuate club members. Deindividuation processes are frequently used in cults. Internalized cultures and socialized members are a success for the leadership, but also a threat to them. Although a member may know what action would be in the leaders' interest, that would also increase the member's "self weight," diminishing the leader's control over the member and thus threatening the leadership (see, e.g., Friedkin 2004).

An individual member is made up of a bundle of identities, and joining an organization typically means that the individual, in order to fit in, must compromise among these many identities. Examples might include women having to de-weight their feminine style in order to fit in with the "boys club" or an African American who feels the need to "act white" in order to fit in at a Wall Street investment firm. Leaders demand submission by the member. The member pays back for services received by showing commitment to the cause. The collective good becomes a crucial guarantor of value for both leadership and the member.

Essentially, the leadership defines a collective good, and the member seeking significance adheres to the defined collective good. By redefining the collective good the leaders keeps control while the individual loses self control. In members' pursuit of significance, they have to give up some selfhood in order to gain significance, perhaps making them more ready to commit to extreme demands by the leadership (Friedkin 2004). Members of such an organization necessarily face a tradeoff between preserving individuality and gaining significance.

A complement to the deindividuation is establishing "points of no return," such as the social pressure put on the Kamikaze pilots, where the individual soldier's refusal would shame his family, and would constitute a fate worse than death (see Hill 2005, Axell and Kase 2005).²⁰ In Sierra Leone and Rwanda people have been forced into horrendous deeds in order to make them commit to the leader and the group.²¹ Leadership strategically makes members commit to particular kinds of action and invest in specific skills that make a return to an alternative, "normal" life impossible.

Religious groups, of course, are not the only type of organization promoting extreme political violence, nor are they only type of "faith based groups" that can supply arenas for high stake sacrifices (see Pape 2003, 2005, Kalyvas, and Sanchez-Cuencas). The success to providers of services has more to do with organizational structure than with theology (see Iannacone and Berman 2006): nationalistic, sectarian, and international ideological movements, from Tamil Tigers to anarchist movements, have been effective at recruiting suicide operatives.

Iannacone 1992 argues that, since club members engage in joint production of local, public goods during nonmarket hours, market work is a distraction with a negative externality for other members. Given this externality, efficient clubs should tax market wages. The non-violent organization of Pentecostals active in the conflict ridden Democratic Republic Congo, for example, does collect taxes from its membership, Lacking tax authority, however, clubs often turn to prohibitions on consumption or to other compulsory sacrifices as a method of lowering wages, a crude-but-feasible substitute for taxation.

²⁰ The kamikaze recruits changed over time. Elite military pilots were largely supplanted by younger, less-educated recruits, perhaps because the practice simple became too expensive and not viable over time.

²¹ In order to live with oneself after violating previously-established norms, one must redefine right and wrong as well as enemy and friend (Homans ref, Festinger 1957).

Club organizations such as Hezbollah and Hamas have relied heavily on charitable from outside funders, requiring dues of its members in non-financial forms. But these have not always been violent; Muslim organizations in Gaza and the West bank did function as a peaceful "state within the state" for many years, requiring dues of its members in non-violent other forms than taxes.²²

Iannacone (1992) points out that, though religion is a natural organizing node for community provision of local public goods, the propensity of religious sects to signals of commitment such as prohibitions, sacrifices of alternatives, and destruction of resources can also be explained in secular preference-terms of as an internal incentives-system which allows clubs to efficiently provide services to members. Given this externality, efficient clubs should tax market wages. Lacking tax authority, however, clubs often turn to prohibitions on consumption or to other compulsory sacrifices as a method of lowering wages, a crude-but-feasible substitute for taxation. (Iannacone 1992).

IV.2 Leadership and Extremism: Favored Characteristics

Circumstances favoring clubs' ability to define collective goods may thus also favor extremism for its value as a way to control club members. In addition, the individuals who lead clubs may exhibit a selection bias favoring extremists, might find the move toward extremism valuable as an expression of commitment, and tend to diverge from the median ideology of their constituencies.

Club leaders may tend to be drawn from among "claimants" who perceive themselves as having particular leadership skills or characteristics (D. Scott DeRue, Susan J. Ashford 2008), but an individual may also have a strong drive to become a leader in order to a pursue a particular cause. In either case, club leaders might exhibit a selection bias toward individual extremist ideology, where it would be costly for them than for others to compromise any aspect of their mission.

Extremism may also be valuable as a way for leaders to communicate commitment to their causes. Leaders that need to prove their willingness to protect the population at any cost will be more extreme in their definition of collective goods than the population as a whole, and even than other potential leaders, and will be more extreme in their choices of tactics when they encounter internal threats or external shocks.

In Kartik and McAfee's (2006) model, voters place a value on an unobservable attribute we call character, but that candidates who lack strong character compete by adopting more extreme positions.²³ Leaders in communities and organizations supporting

²² The Muslim Brotherhood, Mujamma, and even Hamas under the leadership of Yassin all proposed "Internal Jihad" within the refugee camps that contained more than half of the population of Gaza. The Mujamma Islamic Center, founded in 1973, took control of the administration as well as of religious and educational Islamic institutions in the Gaza Strip. It also enjoyed increasing support from abroad, and legitimacy within the Arab and Muslim world (see Mishal and Sela 2000).

²³ The possessors of this attribute have an exogenously- but randomly-determined position that they announce. Those without character choose a position at random from an endogenously determined distribution. As character becomes more important, the distribution of the no-character candidates goes smoothly from a point mass on the preferred position of the median voter (zero importance of character) to the distribution of the character candidates (infinite value). As character becomes more important, the typical extremity of the positions of no-character candidates rises. Indeed, the support of positions grows until it reaches the support of the character types. Where character means something like resistance to

political resistance will be more extreme and fundamentalist in their beliefs, and hence in their definition of collective goods and in their range of possible actions and tactics. And a strong signal commitment benefits not only the recruiting of followers, but also the search for funding for the cause.²⁴

This effect may drive leaders' tendency to diverge from the median ideology of their constituents. It is assumed in much of the leadership literature that the type of leadership is a reflection of what the community wants—remarkably prevalent is the idea that the leader wants to mirror the median voter, and that a community gets the leadership it “asks for.” But we have seen that, in the competition for souls, the most committed of leaders, with the most convincing promise not to sell out the people, is the most credible. Showing extreme commitment demands extreme actions.

In these circumstances potential leaders with strong visions or clear goals will win the battle for leadership, so leaders of organizations will generally be more devoted to the cause, have a stronger confidence in their own capacity, and be more extreme in their beliefs than other members. The winners will be those less willing to compromise because compromise is more costly to them. (Hogg et al.),²⁵ So organization's leaders will be more extreme than their members.

The most effective past leaders of Hamas have signaled unwillingness to compromise through both rhetoric and action. Sheik Ahmed Yassin, one of the five founding members, who directed suicide missions and provided financial assistance to the operatives, has been quoted as saying that Hamas views women as a reserve force and that when Hamas needs women as suicide operatives they use them. Yassin's successor, the pediatrician Abdel Aziz Rantisi, publicly announced, "There will be no concession of one inch of Palestine because it is Islamic Land," that there would be “no recognition of what is called that state of Israel" and that "violent resistance is the only option for the restoration of our stolen rights.” They signaled a clear devotion and commitment to sacrifice everything for the rights of the Palestinian people, and their 2006 election victory was written on the wall years earlier.

The organizational incentives to define an extremist collective good are powerful, and are only reinforced by the effects of a corrupt labor market: the “relatively deprived” individual's heightened need for alternative sources of significance and reduced opportunity cost of extremism increase these incentives in both directions. And indeed, the interaction of supply and demand, of the incentives of individuals with those of organizations, can produce an effect powerful enough to account for much observed extremist activity, even without addressing political or religious ideology. While these undoubtedly matter, policy-makers should first seek to understand and influence the economic processes at work. The corrupt labor market sits at the crux of the interaction of the supply of potential terrorist operatives and the organizations' demand for them.

bribery and threats, the salience of character rises as the frequency of bribery and threats increases, that is, with increasing social disorder.

²⁴ It is also plausible that other factors come in to play. One might be a tactical signal of the leader's strong commitment to the cause (See Bloom 2005, Kydd and Walter 2008). Osama Bin Laden's decision to sacrifice a comfortable life to live in the wilderness is an example.

²⁵ Leaders who can show commitment to a cause and unwillingness to compromise may also be more successful in generating funding from financial backers with similar goals.

V. Alignment of Individuals' and Organizations' Interests: Gains from Trade

It was formerly assumed that poverty and lack of education drove the supply side of the labor market for terrorism, but the discovery of surprisingly high levels of education and income among suicide bombers has triggered a reaction, leading recent commentators to make sweeping claims about the extent to which ideology drives both individuals and organizations, to abandon hope of influencing the supply side, and to dismiss the ability of economics approaches to aid in understanding terrorism and designing effective policy against it.

Attacking the funding of extremist organizations and supporting alternative choices for potential recruits have rightly been proposed and implemented as effective ways to reduce demand in the terrorism market. But dismissing the supply side is a mistake, for it precludes a focus on the interaction of supply and demand, the interaction that sets the quantity and price of terrorist operatives' lives. Dismissing the supply side also means abandoning consideration of the legitimate labor market in the fight against terrorism. As a major competitor to extremism, and as a major opportunity cost for so many operatives, the labor market sits at the crux of supply and demand: much more than low income alone, the injustice of a corrupt labor market can increase both. It not only increases the supply of operatives, but also raises the value of the significance an extremist organization can provide.

An individual's decision to join an organization represents a trade: a highly-educated individual exchanging his or her life to an organization for a quantity of organizationally-defined significance. The gains from this trade are a result of the alignment of interests between significance-seeking recruits and power-seeking leadership. In a broken state, the incentives of the highly-educated to find alternative sources of significance comes into fatefully powerful alignment with the incentives and ability of club leadership. We have seen that when state-level markets and governments fail, the opportunity cost to extremism shrinks for both individuals and organizations. The available supply of quality personnel increases, while the organization's demand for quality personnel increases because the significance it provides becomes more valuable as the value of its competitors' substitutable brand of significance decreases. The value of such alignment of interests is potentially tremendous, and may account for the observed paradoxes that prompted the present study.

VI. Conclusions

Poverty is not the main driving force of insurgent violence, but the true forces may be equally, or even more, difficult to address with policy. The value of legitimate and extreme careers are best understood in terms of significance, to which income is only one contributor. But significance, like status and wealth, constitutes a ranking relative to some reference group or groups, and the more formidable reference groups associated with higher levels of education may leave even relatively high-income individuals feeling poorer and less significant than the poorest members of their communities. The reduced opportunity cost to an extremist career for the highly-educated may drive their over-representation among violent operatives.

Several structural features of club leadership may drive organizations toward extremism, and the declining opportunity cost to extremism in a failing state may drive institutional extremism as well as individuals' decisions to join. The leadership of these organizations seems to exhibit a selection bias toward extremism and, in order to recruit members and attract funds, must signal extreme commitment by promising total sacrifice in the interests of a hard-line, no-compromises approach. These leaders will be at the extreme ends, not the median, of the ideological continuum of the population. Effective techniques of maintaining control, including deindividuation through sudden redefinition of the collective good, also tend to push organizational leadership toward extremism.

Ultimately, though, we must target the interaction of the supply and demand on which these forces work. A focus the demand of sub-state organizations for operatives, which grows not only with their financial resources, but also with their power to define collective goods, should not lead policy and theory to ignore the increasing supply of dispossessed potential recruits. We have seen the power associated with a community's authority to define collective goods, but each individual is a member of multiple communities- geographical, religious, kinship, etc., each with potential to define collective goods and confer significance. Perhaps it should not be surprising that income alone is a poor predictor of terrorist violence, just as it is of significance. At the same time, economics has a role to play in the structure of all of the institutions that compete to provide significance to the dispossessed. In the struggle against terrorism, the labor market must not be ignored as a force residing at the center of this competition.

References

- Abadie, Alberto and Javier Gardeazabal. 2007. Terrorism and the World Economy. *European Economic Review* 52 pp.1-27.
- Abadie, Alberto. 2004. "Poverty, Political Freedom, and the Roots of Terrorism." *The American Economic Review*, 96(2), pp 50-56.
- Angrist, Joshua. 1995. "The Economic Returns to Schooling in the West Bank and Gaza Strip." *The American Economic Review*, Vol 85, No. 5 (Dec) pp 1065-1087)
- Angrist, Joshua. 1998. The Palestinian Labor Market Between the Gulf War and Autonomy. Working paper No. 98.5, MIT
- Angrist, Joshua. 1996. Short-Run Demand for Palestinian Labor. *Journal of Labor Economics*, Vol. 14, No. 3 (Jul) pp 425-453.
- Axell, Albert and Hideaki Kase. 2002. *Kamikaze Japan's Suicide Gods*. Pearson Education Limited, United Kingdom.
- Arif, G.M. M.F. Khan Kiani and Khalid H. Sheikh. 2002. "Labour Market Dynamics In Pakistan: Evidence From The Longitudinal Data." *The Pakistan Development Review*. No 4. pp 701-720
- Becker, Gary. 1968. Crime and Punishment: An Economic Approach. *The Journal of Political Economy* Vol 76, No.2, March-April, pp.169-217.
- Benmelech, Efraim, Claude Berrebi and Esteban F. Klor. 2009. "Economic Conditions and the Quality of Suicide Terrorism." mimeo.
- Benmelech, Efraim, and Claude Berrebi. 2007. "Human Capital and the Productivity of Suicide Bombers.", *Journal of Economic Perspectives*, 21(3) pp. 223-238.
- Benmelech, Efraim, and Claude Berrebi. 2009. "Attack Assignments in Terror Organizations and The Productivity of Suicide Bombers." mimeo 2009.
- Berger, Joseph, Morris Zelditch, Jr., Bo Anderson, and Bernard P. Cohen. 1972. "Structural Aspects of Distributive Justice: A Status -Value Formulation. Pp. 119-246 in *Sociological Theories in Progress*, Vol. 2 (ed) by Joseph Berger, Morris Zelditch, Jr., and Bo Anderson, Boston: Houghton Mifflin.
- Berman Eli. 2000. Sect, Subsidy and Sacrifice. An Economists View of Ultra Orthodox Jews. *Quarterly Journal of Economics* 115(3) pp. 905-953.

Berman, Eli. 2003. Hamas, Taliban and the Jewish Underground: An Economists View of Radical Religious Militias, NBER WP 10004, October.

Berman, Eli and David D. Laitin. 2008. "Religion, Terrorism and Public Goods: Testing the Club Model." *Journal of Public Economics* , 92(10-11) pp. 1942-1967.

Berman, Eli, Jacob N. Shapiro and Joseph H. Felter. 2008. "Can Hearts and Minds be Bought? The Economics of Counterinsurgency in Iraq." NBER July 28 2008

Berrebi, Claude .2007. Evidence about the link Between Education, Poverty and Terrorism among Palestinians. *Peace Economics, Peace Science and Public Policy*, Vol. 13, Issue 1. Pp. 1-36.

Black, Duncan. 1948. "On the Rationality of Group Decision Making." *Journal of Political Economy*, 56, Pp. 23-34.

Blau, Peter. M .1964. *Exchange and Power in Social Life*. New York: Wiley

Bloom Mia. 2005. *Dying to Kill. The Allure of Suicide Terror*. Columbia University Press New York.

Bueno de Mesquita, Ethan. 2008. "Terrorist Factions", *Quarterly Journal of Political Science*, 3(4) Pp. 399-418.

Bueno de Mesquita, Ethan, and Eric S. Dickson. 2007. "The Propaganda of the Deed: Terrorism, Counterterrorism, and Mobilization. *American Journal of Political Science*, Vol. 51 No. 2 April Pp. 364-381.

Bueno de Mesquita, Ethan. 2005. "The Quality of Terror.", *American Journal of Political Science*, 49(3), pp.515-530.

Canetti, Elias. 1960. *Crowds and Power [Masse und Macht]*. Trans. Carol Stewart. Farrar, Strauss, & Giroux, New York.

Collier, Paul and Anke Hoeffler. 2004. "Greed and Grievance in Civil War." *Oxford Economic Papers* 56 Pp. 563-595.

Davis James C. 1962. "Toward A Theory of Revolution." *American Sociological Review* Vol. 27, No. 1 pp 5-19.

DeRue, D. Scott and Susan J. Ashford A Social Interactionist Approach to Leader Identity Development: A Process Model mimeo University of Michigan.

Durkheim, Emile. 1951. *Suicide. A study in Sociology*. A Free Press, Macmillan Publishing Co., Inc. New York

Elster, Jon. 2005. "Motivation and Beliefs in Suicide Missions?" Chapter 5, pp. 233-258 in Diego Gambetta (Ed) *Making Sense of Suicide Missions*. New York: Oxford University Press.

Fair, Christine C. and Jacob Shapiro "Why Support Islamist Militancy? Evidence From Pakistan." forthcoming in *International Security Studies*

Fearon James D. and David D. Laitin. 2003. "Ethnicity Insurgency, and Civil War." *American Political Science Review* 97:75-90

Festinger, Leon. 1957. *When Prophecy Fails*

Festinger, Leon. 1954. "A Theory of Social Comparison Processes." *Human Relations* 7, 117 - 140.

Friedkin Noah, E. 2004. "The Interpersonal Systems and Organized Suicides of Death Cults." mimeo

Frankl, Victor, E. 2000. *Man's Search for Ultimate Meaning*. New York: Basic Books

Gambetta Diego and Steffen Hertog. 2007. "Engineers of Jihad." *Sociology Working Papers* No. 2007-10, Oxford University.

Gambetta, Diego. 2005. *Making Sense of Suicide Missions*, Oxford University Press.

Gurr, Ted. 1970. *Why Men Rebel*, Princeton, NU: Princeton University Press

Hassan, Nasra. 2001. "An Arsenal of Believers: Talking to the Human bombs." *The New Yorker*. November 10, 2001.

Heckathorn, Douglas D. 2004 "The Paradox of Suicide in Solidary Groups". mimeo

Hill, Peter 2005. Kamikaze, 1943-45 Chapter I, pp.142 in Diego Gambetta (Ed) *Making Sense of Suicide Missions*. New York: Oxford University Press.

Hogg A. Michale and Deborah J Terry. 2001. *Social Identity Processes in Organizational Contexts*. Philadelphia: Psychology Press.

Homans G. Caspar. (1961)1974. *Social behavior: Its elementary forms*, revised edition. New York: Harcourt, Brace, Jovanovich.

Hopgood, Stephen. 2005. "Tamil Tigers, 1987-2002." Chapter 2, pp. 43-76 in Diego Gambetta (ed.) *Making Sense of Suicide Missions*, Oxford University Press.

Iannacone, Laurence, R. 1992. Sacrifice and Stigma: Reducing Free-Riding in Cults, Communes, and Other Collectives. *Journal of Political Economy* 100(2) pp 271-292

Iannacone, Laurence, R. 1994. Why Strict Churches are Strong. *American Journal of Sociology* 99(5) pp 1180-1211.

Iannacone, Laurence, R. 2006. The Market for Martyrs, mimeo.

Iannacone, Laurence R. and Eli Berman. 2006. "Religious Extremism: The Good, The Bad, and the Deadly." forthcoming in *Public Choice on the Political Economy of Terrorism*, ed by Charles Rowley. 128 (1-2), pp. 109-129

Jasso, Guillermina. 2000. "Some of Robert K. Merton's Contributions to Justice Theory." *Sociological Theory* 18:2 July pp. 331-339.

Jasso, Guillermina. 2002. "Comparison Theory." Chapter 30 in *Handbook of Sociological Theory*, edited by Jonathan H. Turner. Kluwer Academic /Plenum Publishers, New York.

Kartik, Navin, and R. Preston McAfee. 2006. "Signaling Character in Electoral Competition" mimeo

Kalyvas Stathis N. and Ignacio Sanchez-Cuenca. 2005. "Killing Without Dying: the Absence of Suicide Missions." in *Making Sense of Suicide Missions*, edited by Diego Gambetta, Oxford University Press Oxford.

Koo, Jahyenong and W. Michael Cox. 2008. "An Economic Interpretation of Suicide Cycles in Japan. *Contemporary Economic Policy*. Vol. 26, No. 1, January Pp. 162-174.

Krueger, Alan B. 2007. *What Makes a Terrorist? Economics and the Roots of Terrorism*. Princeton: Princeton University Press.

Krueger Alan B. and David D Laitin, 2003. Kto Kogo? A Cross country Study of the Origins and Targets of Terrorism. Mimeo.

Krueger Alan B. and Jitka Maleckova. 2003. "Education, Poverty and Terrorism: Is there a Causal Connection? *Journal of Economic Perspectives*, 17, Pp.119-144.

Kruglanski, Arie, W., Xiaoyan, Chen, Mark Dechesne, Shira Fishman and Edward Orehek. 2007. "Fully Committed: Suicide Bombers' Motivation and the Quest for Personal Significance" forthcoming in *Political Psychology*.

Kydd, Andrew, H., and Barbara Walter. 2006. "The Strategies of Terrorism." *International Security*, vol .31 No 1 (Summer) pp. 49-80.

Kydd, Andrew, H., and Barbara Walter. 2008. Outbidding and Overproduction of Terrorism. Mimeo

Kwon, Illoong and Eva M Meyersson Milgrom. 2009. Status in the Work Place, SIEPR working paper .

Laitin David and Alan Krueger. 2007. "Kto Kogo?: A Cross country Study of the Origins and Targets of Terrorism Terrorism and Economic Development and Political Development" ed. Philip Keefer and Norman Loayza, Cambridge: Cambridge University Press.

Levitt, Matthew. 2006. *Hamas. Politics, Charity, and Terrorism in the Service of Jihad*. Yale University Press New Haven and London.

Mishal, Shaul and Avraham Sela. 2000. *The Palestinian Hamas. Vision, violence, and Coexistence*. Columbia University Press, New York.

Merton Robert K. (1949 1957). 1968. *Social Theory and Social Structure*. New York: Free Press

Merton, Robert K. (1938). "Social Structure and Anomie", *American Sociological Review*, Vol. 3 No 5, October 1938

Merton Robert K. and A S Rossi. 1950. Contributions to the theory of reference group behavior, in R.K. Merton and P. Lazarsfeld (Eds.) *Continuities in social research: Studies in the scope and method of the American Soldier*, pp. 40-105. New York: Free Press.

Miguel, Eward, Chang-Tai Hsieh, Daniel Ortega and Fransisco Rodriguez and "The Price of Political Opposition: Evidence from Venezuela's Maisanta. mimeo

Napoleoni, Loretta. 2005. *terror incorporated. tracing the dollars behind the terror networks* Seven Stories Press New York.

Pape, Robert A. 2003. The Strategic logic of suicide Terrorism. *American Political Science Review* Vol. 97, No.3 pp. 343-361.

Pape, Robert A. 2005. *Dying To Win. The Strategic Logic of Suicide Terrorism*. New York: Random House.

Pedahzur, Ami. 2005. *Suicide Terrorism*. Cambridge: Polity Press

Polanyi, Karl. (1944) 1957. *The Great Transformation: The Political and Economic Origins of Our Time*. Boston: Beacon Press.

Post J M, Sprinzak E and L M Denny. 2003, "The Terrorists in Their Own Words." in *Terrorism and Political Violence* 15 171-184.

Ranstorp, Magnus

Sageman, Marc. 2004. *Understanding Terror Networks*. University of Pennsylvania Press Philadelphia

Scott, DeRue D. Susan J. Ashford. 2008. "A Social Integrationist Approach to Leader Identity Development: A Process Model." mimeo Michigan

Sherif, Muzafer, 1968. "Self Concept", in David L. Sills (Ed.), *International Encyclopedia of the Social Sciences* vol. 14, pp. 150-159 New York: MacMillan and Free Press.

Spekhard, Anne. and Akhmedova, Khapta. 2005. "Talking to terrorists.", *Journal of Psychohistory* Fall 33. 125-156

Stern, Jessica. 2003. *Terror in the Name of God. Why Religious Militants Kill* Harper Collins, New York.

Stouffer, Samuel et al. vol 1. 1965 (1949). *The American Soldier*. Chapter 7, Job assignment and Job Satisfaction. Pp 284-361. Princeton University Press.

Stouffer Samuel et al vol. 2. 1965 1949 *The American Soldier Studies in Social Psychology in World War II*. Princeton NJ: Princeton University Press.

Thibaut, John W. and Harold H. Kelley *The Social Psychology of Groups* John New York: Wiley & Sons, Inc.

Tocqueville, Alexis de. [1857] 1988. *The Ancien Regime*. London: J.M. Dent & Sons.

Victoroff, Jeff. 2005. "The Mind of the Terrorist. A Review and Critique of Psychological Approaches." *Journal of Conflict Resolution* Vol. 49 No. Feb Pp. 3-42.

Zelditch, M., Jr. 1968. Status, Social In D.L. Sills (Ed.) *International encyclopedia of the Social Sciences* Vol. 15 pp. 250-257. New York: Macmillan.

