Original Article

THE EVOLUTIONARY PSYCHOLOGICAL IMAGINATION: WHY YOU CAN'T GET A DATE ON A SATURDAY NIGHT AND WHY MOST SUICIDE BOMBERS ARE MUSLIM

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Abstract

I propose a new concept of the *evolutionary psychological imagination*, to replace C. Wright Mills' half-century-old notion of the sociological imagination, as a way to link personal experiences with wider social phenomena. To illustrate, I discuss how one's difficulty in dating might be connected to the current world war, and how the evolutionary psychological imagination sometimes allows us to see things that few others do.

Keywords: Terrorism, "War on Terror", 9/11, Madrid bombings, the Savanna Principle

Introduction

In his 1956 bestseller, the sociologist C. Wright Mills argued that the sociological imagination allowed its possessor to situate one's "biography" within larger "history," and see an intimate link between an individual's "personal troubles" and the society's "public issues." In his words, "troubles occur within the character of the individual and within the range of his immediate relations with others; they have to do with his self and with those limited areas of social life of which he is directly and personally aware." In contrast, "issues have to do with matters that transcend these local environments of the individual and the range of his inner life" (Mills, 1956, p. 8). The sociological imagination, Mills argued, allows one to see how one's personal troubles (such as being laid off from work) is intimately connected to larger public issues (such as macroeconomic trends like recession). The personal trouble is just one instantiation and exemplification of the larger public issue, and individual biography is part of larger history.

Mills' *The Sociological Imagination* became an instant classic in sociology, and generation after generation of Soc 101 students have learned of the concept and read at least an excerpt from the book. It's a wonderful idea, but

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I think we need to update it a bit. It's been more than half a century since Mills proposed the idea, and our understanding of human behavior -- our ability to explain "personal troubles" -- has advanced significantly since then. In 1956, we didn't have evolutionary psychology; in 1956, we didn't even have inclusive fitness and kin selection (Hamilton, 1964), let alone parental investment (Trivers, 1972), the cheater detection module (Cosmides, 1989) (or any other evolved psychological mechanism), or *The Mating Mind* (Miller, 2000). Robert Trivers was in junior high school; neither Leda Cosmides nor Simon Baron-Cohen had even been born yet. Really, what could we possibly know about human behavior without evolutionary psychology?

I concur with Mills that our ability to situate our "biography" within larger "history," by linking our "personal troubles" to the society's "public issues," is very important. Since all good science is reductionist (Coleman, 1990; Weinberg, 1992), we should be able to explain "public issues" at the macro level in terms of "personal troubles" at the micro level, and vice versa. Societal, macroeconomic, and political phenomena should be explainable in terms of individual behavior. It is my belief, however, that, because evolutionary psychology is a far better perspective for understanding human behavior than sociology ever was or will be, the *evolutionary psychological imagination* will allow us to see even more intimate links between our personal troubles and public issues. Now that we have evolutionary psychology, it's time that we replaced the sociological imagination with the evolutionary psychological imagination.¹

The evolutionary psychological imagination first allows you to see the universality of human nature and realize that, to a large extent, people are the same everywhere. It diverts your attention from the particular, the exceptional, the individual, and the local, and focuses your attention to the universal and the common in human experiences. Just like the sociological imagination, the evolutionary psychological imagination then allows you to connect "biography" and "history," and link "personal troubles" with "public issues." Unlike the sociological imagination, however, the evolutionary psychological imagination does so by emphasizing the biological and evolutionary foundations of human behavior and social phenomena, and the interaction of social and cultural factors with such biological and evolutionary foundations. Social and cultural factors impact human behavior only through the evolved human nature. The evolutionary psychological imagination reminds us that, in the words of inimitable Laura Betzig, "people are animals" (Betzig, 1997).

Personal Troubles: Why You Are Spending Every Saturday Night Alone

If you are chronically spending every Saturday night alone, despite valiant and persistent effort to find a date, then chances are there's something wrong with you, at least in this area of life. You probably don't possess the qualities that members of the opposite sex seek in potential mates. Evolutionary psychological research has not only discovered what these traits are that men and women seek in each other, but also that the traits sought after by men and women are culturally universal; men everywhere in the world seek the same traits in women (such as youth and physical attractiveness) and women everywhere in the world

¹In 1991, Mary Maxwell published an edited book called *The Sociobiological Imagination*. Albeit an excellent book in its own right, it was not an attempt to update the sociological imagination, as Maxwell herself admits on the first page of the book. It is a collection of essays, written by early pioneers of sociobiology in various fields, and demonstrating how the knowledge of sociobiology can illuminate traditional social sciences and humanities.

seek the same traits in men (such as wealth and status) (Buss, 1989). In fact, one of the themes of evolutionary psychology is that human nature is universal (or "species-typical") and people are the same everywhere (or their cultural differences can be explained by the interaction of universal human nature and the local conditions) (Cosmides & Tooby, 1992; Kanazawa, 2006). You may be comforted to know that you are not alone in your plight; there are losers like you everywhere in the world, *and for the same reasons*.

The evolutionary psychological imagination, however, also tells you that your personal troubles are not entirely your own doing; there are larger forces at work to keep you alone on a Saturday night. For example, if you consistently find yourself dateless, chances are you are a young man, not a young woman. On any given Saturday night, more young men than young women find themselves dateless, even though the sex ratio in society is always roughly 50-50 and there are about the same number of young men as young women. This is because humans are naturally polygynous (Alexander et al, 1979; Kanazawa & Still, 1999), and throughout evolutionary history some men have always had multiple mates. The mathematical consequence of polygyny is most obvious in societies that sanction and practice (simultaneous) polygynous marriage, such as many African tribes and Muslim societies in the Middle East. If every married man has four wives, for example, it means that, given a 50-50 sex ratio, three-quarters of men are left mateless. A large majority of men in such societies are in the same situation as you are; they find themselves alone on a Saturday (and every other) night.

However, as Daly and Wilson (1988, pp. 140-142) point out, "polygyny is a matter of degree" in human mating systems; every human society is more or less polygynous, even in an officially monogamous society like the United States. This is both because some married (or otherwise already-mated) men acquire and keep additional mates (in the form of mistresses and girlfriends)² and because men in such nominally monogamous societies practice serial polygyny, where divorced men go on to marry younger women in their second and subsequent marriages. One of the strongest predictors of remarriage after divorce is sex; men often remarry, women often don't.

Now if men only practice serial polygyny and do not acquire multiple mates simultaneously, then it means that there are an equal number of available women as available men. However, given men's preference for younger women and women's preference for older men (Buss, 1989; Kenrick & Keefe, 1992), most of the now available women are older women who have been married and divorced and have had some children, while most of the available men are young men yet to have their reproductive opportunities (if they are lucky). They do not make good matches for each other. In polygynous societies (either simultaneous or serial), most women get their reproductive opportunities and have children (if followed by a divorce in the case of serial polygyny), while many men are left out of their reproductive opportunities altogether for life and spend their entire life mateless. The more polygynous the society, the more young men face the distinct possibility of ending their lives as complete reproductive losers. Such is the mathematics of polygyny.

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²Although more married men than married women have extramarital affairs (24.5% of married men versus 15.0% of married women, according to the National Health and Social Life Survey (Laumann et al., 1994, p. 216, Table 5.15)), some married women do have extramarital affairs and thus acquire additional mates in the form of lovers and boyfriends. I thank Rosemarie I. Sokol (and Carrie Bradshaw) for uncovering my blind spot.

This bleak prospect, created by polygyny, makes men very competitive and aggressive, because they must compete fiercely with each other not to be left out of the reproductive game altogether and to win mates. This is why men in every human society are more violent and aggressive than women (just as males of most other species are more violent and aggressive than females) (Trivers, 1972). Further, the more polygynous the society, the more aggressive and violent the men become (Daly & Wilson, 1988; Kanazawa & Still, 2000). This is why, among other things, your boyfriend is often insufferably rude to the waiter when you go out to dinner. He is trying to impress you in his misguided attempt to put down potential competitors and claim higher status than the waiter. If you are a woman, your "personal troubles" include having to put up with such immature behavior of your boyfriends and husbands.

Yes, as Mills pointed out, your "personal troubles" are largely the results of who you are and how you relate to those in your immediate surroundings. But it does not mean that they are entirely your fault; there are some forces beyond your control that contribute to your personal troubles, and the evolutionary psychological imagination can suggest what these forces might be.

Public Issues: World War III

In his 1999 book *The Lexus and the Olive Tree*, the New York Times columnist Thomas L. Friedman predicted that the first major war in the 21st century, after the end of the Cold War which characterized the latter half of the 20th, would not be fought between nations. It would instead be declared by what Friedman called "super-empowered angry men," such as, among others, (the then little-known) Osama bin Laden. Such super-empowered angry men would use the power of modern technology, like the internet, email, and cell phones, to mount a successful war against modern states, possibly even a superpower like the United States. Two years later, his ominous prediction came true. In his September 13, 2001, *NYT* column, filed from Jerusalem, Friedman once again predicted that the events in New York and Washington two days earlier signified the start of World War III. Nearly six years later, we are still in the middle of World War III.

While World War III is commonly called "the War on Terror," and our enemies are collectively known as "the terrorists," they are very different from traditional terrorist groups, such as the Irish Republican Army, ETA (Basque Fatherland and Liberty), the Japan Red Army, and other Marxist revolutionaries throughout history. Terrorists, traditionally, are those who have clear political goals and are willing to resort to violence and destruction in order to achieve them. For traditional terrorists, what is most important is the political goals, and violence and destruction are means to their goals; they are not goals themselves. If they could achieve the goals without violence and destruction, they'd prefer to do so.

For example, while the IRA has assassinated many targeted individuals (mostly politicians and British soldiers), they do not aim to kill random civilians. That's why, when the IRA sets and explodes bombs on commercial targets in Britain, it usually gives a 45-minute advance warning, enough time for the occupants of the buildings to evacuate them safely, but not enough time to call in the bomb squad to locate and defuse the bombs (Coogan, 1995, pp. 513-521). While the members of Greenpeace and other eco-terrorist groups often endanger their own lives, they are not known intentionally to endanger the lives of others. Traditional terrorist groups let the whole world know that they are responsible for their acts of violence and destruction, and often court media attention, because such publicity helps spotlight their political goals.

Our enemies in the current "War on Terror" are very different. They aim to endanger as many lives as possible, including their own, and they do not seem to have clearly stated political goals (Atran, 2003, p. 1538; Friedman, 2002, pp. 144-145). They do not give advance warnings of their attacks, and they do not even publicly claim responsibility for the violence after the fact (Krueger & Maleckova, 2003, p. 129). (Many of the claims of responsibility on various web sites are usually false.) As a result, it appears that, for our current enemies, the murder and destruction *is* the goal, rather than means to political goals. That is why, for example, the Palestinians did not stop their suicide bombings even after Israeli government, under Ehud Barak, conceded virtually everything the Palestinians demanded. Yasir Arafat did not call off his suicide bombers even when he achieved his stated political goals, which were the total withdrawal of Israelis from the West Bank and the control of Jerusalem (Friedman, 2002, pp. 13-14, 19-20).

Why? Why are our current enemies in World War III so different from traditional terrorists?

Despite varied geography, cultures, languages, and ethnicities, one factor which unites all of our otherwise diverse current enemies, from al Qaeda in the Middle East, to Jemaah Islamiyah in the South East Asia, to the Chechen rebels in Russia, to the Palestinian suicide bombers in Israel, to the Sunni insurgents in Iraq, is Islam. According to the Oxford University sociologist Diego Gambetta, editor of *Making Sense of Suicide Missions*, a comprehensive history of this topical yet puzzling phenomenon, while suicide missions are not always religiously motivated, when religion is involved, it is *always* Islam (Gambetta, 2005, pp. 259-263).

Why is this? Why is Islam the only religion that motivates its followers to commit suicide missions? Why is this religion a common factor in our otherwise diverse enemies in World War III? What (if anything) does it have to do with your spending Saturday night alone? The evolutionary psychological imagination may shed some light on these puzzles.

What distinguishes Islam from other major world religions (Christianity and Judaism) is that it sanctions polygyny, and, as we saw earlier, polygyny increases competitive pressure on men, especially young men of low status, who are most likely to be left without reproductive opportunities when older men of higher status marry polygynously. Polygyny therefore increases the likelihood that young men resort to violent means to gain access to mates because they have little to lose and much to gain by doing so, compared to men who already have wives. This is why, across all societies, polygyny increases violent crimes, such as murder and rape, even after controlling for such obvious factors like economic development, economic inequality, population density, the level of democracy and world regions (Kanazawa & Still, 2000). So the first unique feature of Islam, which partially contributes to the prevalence of suicide bombings among its followers, is polygyny, which makes young men violent everywhere.

However, polygyny by itself, while it increases violence, is not sufficient to explain suicide bombings. Societies in sub-Saharan Africa and the Caribbean are much more polygynous than the Muslim nations in the Middle East and Northern Africa; 18 of the 20 most polygynous nations in the world are in sub-Saharan Africa and the Caribbean.³ Accordingly, nations in these regions have very high

³Kanazawa and Still (1999) construct a polygyny score for each nation in the world, based on ethnographic evidence (Levinson, 1991-1995). The score varies from 0 = monogamy is the rule and is widely practiced, to 3 = polygyny is the rule and is widely practiced. The top 20 most polygynous nations according to these scores are: 1. Anguilla, 1. Antigua and Barbuda, 1. Bahamas, 1. Barbados, 1. Equitorial Guinea, 1. Gabon, 1. Haiti, 1. Lesotho, 1. St.

levels of violence, and sub-Saharan Africa suffers from a long history of interminable civil wars, but not suicide bombings. So polygyny itself is not their sufficient cause.

The other key ingredient is the Koran's promise of 72 virgins waiting in heaven for any martyr in Islam. This creates a strong motive for any young Muslim men who are excluded from reproductive opportunities to commit suicide bombings. Now a vague promise of 72 virgins waiting in heaven may not sound so appealing if they have even one real mate on earth, which monogamy in the context of a 50-50 sex ratio mathematically guarantees. However, for young, low-status Muslim men who are excluded from any mating opportunities because of polygyny among older, higher-status men, even such a vague promise in the afterlife begins to be appealing in light of their bleak reproductive prospect on earth.

An important evolutionary psychological principle, which I call the Savanna Principle (Kanazawa, 2004), is crucial in understanding the effect of the promise of 72 virgins on young Muslim men's motivation to commit suicide bombing. The Savanna Principle states that the human brain has difficulty comprehending and dealing with entities and situations that did not exist in the ancestral environment. This difficulty stems from the fact that the human brain, just like any other body part of any other species, is adapted to and designed for the conditions of their evolutionary environment, not necessarily the current environment (Crawford, 1993; Symons, 1990; Tooby & Cosmides, 1990). For humans, this means that the human brain implicitly assumes that we still live in the African savanna during the Pleistocene Epoch, roughly 1.6 million to 10,000 years ago.

For example, many Western young men who chronically find themselves dateless resort to pornography for sexual satisfaction. When men see images of sexually receptive women, they become aroused. This does not make sense, because these men should know that they would never actually meet, let alone copulate with, these sexually receptive women in the movies. So there is no point in getting an erection when they watch pornography, because the only biological function of an erection is to allow men to have sexual intercourse with women. The Savanna Principle tells us, however, that the brain of these men doesn't really comprehend that they would never copulate with the sexually receptive women they see on the screen, because there were no television, videos, DVDs or the internet in the ancestral environment. All sexually receptive women that our ancestral men ever saw were real, and they were able to have sexual intercourse with them. Adapted to the conditions of the ancestral environment without TV and videos, the brain of young men today cannot really comprehend that they cannot have sex with the porn stars they see on TV.

Just as the brain of young Western men today is tricked by porn movies, which did not exist in the ancestral environment, the brain of young Muslim men today is tricked by the Koran, which also did not exist in the ancestral environment. Just as the brain of Western men thinks that they can potentially copulate with the sexually receptive women they see in porn movies, the brain of

Vincent/Grenadines, 1. Swaziland (all of which have the maximum polygyny score of 3.000), 11. Morocco (2.9700), 12. Liberia (2.9000), 13. Nigeria (2.8175), 14. Congo (former Zaire) (2.8095), 15. Sierra Leone (2.8000), 16. Chad, 16. Nicaragua (both 2.7500), 18. Niger (2.7250), 19. Togo (2.6667), and 20. Mozambique (2.6664). Only Morocco and Nicaragua are outside of sub-Saharan Africa and the Caribbean. Both the United States and the United Kingdom have a polygyny score of 0.

Muslim men thinks that they could copulate with the 72 virgins in heaven, *if they die as martyrs*. The behavior of chronically mateless men both in the West and in Muslim nations is partially influenced by their brain's difficulty in comprehending evolutionarily novel entities, such as porn movies or the Koran. If you are a likely reproductive loser in the United States, watching porn is your way of meeting women and having sex. If you are a likely reproductive loser in a Muslim society, committing suicide bombing is your ticket.

Social scientists have recently noted that suicide bombers tend to be slightly more educated and wealthier than the general Muslim population from which they come (Atran, 2003; Berrebi, 2003; Krueger and Maleckova, 2003), in seeming contradiction to my suggestion here, because such men should have more reproductive opportunities on earth than their less educated and poorer competitors. Closer examination of these studies reveals, however, that they are not inconsistent with my evolutionary psychological explanation of suicide bombings.

For example, a study of 129 Hezbollah *shahids* (martyrs), only three of whom were suicide bombers, shows that *shahids* are significantly more likely to have attended secondary school or higher, and significantly less likely to come from a poor family (Krueger & Maleckova, 2003, pp. 129-135). However, this is *entirely* because Hezbollah members are more likely to come from Beirut and South Lebanon, characterized by higher level of education and less poverty. Once the geographic origin is controlled, *shahids* are no more likely (albeit no less likely either) to come from privileged background.

Another study of Hamas suicide bombers shows that they have higher economic status and educational attainment than Palestinians in general (Berrebi, 2003). However, the same study shows that Hamas suicide bombers have lower economic status and educational attainment than other (non-suicidal) Hamas members. So it appears that Palestinians need higher socioeconomic status and greater education to join Hamas, possibly because, according to Krueger and Maleckova (2003, p. 142), Hamas membership is just an extremely violent end of political activities and more educated people from privileged backgrounds are more likely to participate in politics in general (although it is a myth in the United States that more educated individuals are more likely to vote; they are merely more likely to lie and say they did (Kanazawa, 1998)). However, once they become members of Hamas, it is the less educated and less privileged ones who become suicide bombers.

Most importantly, all studies of suicide bombers indicate that they are significantly younger than not only the Muslim population in general but also other (non-suicidal) members of their own extreme political organizations like Hamas and Hezbollah, and nearly all suicide bombers are single (Atran, 2003; Berrebi, 2003). Because all primate societies, including humans, are gerontocratic, age is the greatest predictor of men's social status, and we would therefore expect the youngest men to have the lowest status and thus the dimmest prospect for reproductive success in any organization. The detailed studies of suicide bombers by social scientists are consistent with this prediction from evolutionary psychology.

The evolutionary psychological imagination suggests that there may be an intimate connection between your inability to find a date on a Saturday night, and World War III, the current so-called "War on Terror." It suggests that Muslim suicide bombings may have nothing to do with Islam or the Koran (except for two lines in it, one condoning polygyny, another promising 72 virgins to all martyrs); they may have nothing to do with religion, politics, culture, race, ethnicity, language or region. As is everything else from an evolutionary psychological

perspective, they may have a lot to do with sex, or, in this case, the absence of sex.

The Power of Evolutionary Psychological Imagination

Sometimes the evolutionary psychological imagination allows you to see things that few others do.

On March 11, 2004, ten bombs exploded nearly simultaneously on four crowded commuter trains in Madrid, killing 191 people and injuring almost 1,800. It was the largest act of violence in Europe since the Lockerbie bombing of Pan Am Flight 103 in 1988. As with the rest of the world, I was intently watching the news coverage of the event at home on TV.

Within minutes of the explosions, the Spanish government publicly accused ETA (Basque Fatherland and Liberty) for the terrorist act. immediately said to myself, "No, it ain't ETA. It's Muslim suicide bombers." (The kabalistic significance of the date -- that March 11 is the calendrical opposite of September 11 -- had not occurred to me or many others at first.) Political pundits appeared on BBC and mentioned that it was three days before the Spanish general election, and ETA committed this terrorist act in an obvious attempt to influence the electoral outcome. Knowing nothing about the Spanish national politics, I said to myself, "No, it ain't ETA. It's Muslim suicide bombers." Terrorist experts appeared on Sky News and said that the blasts had the characteristic signature of ETA attacks. Knowing nothing about the typical terrorist methods employed by ETA, I said to myself, "No, it ain't ETA. It's Muslim suicide bombers." Of course, we now know that it was Muslim suicide bombers with links to Al Qaeda who committed this massive act of violence. They were different from typical Muslim suicide bombers, in that they did not die in the initial blasts, having detonated the bombs remotely via cell phones. However, they nonetheless blew themselves up in their apartment a few weeks later as the Spanish police closed in to arrest them.

Armed only with the evolutionary psychological imagination (and nothing else), it was obvious to me from the start that ETA (or any other terrorist group) could not have committed this act. ETA, like all terrorist groups, has a political goal, which is the independence and autonomy of the Basque region from Spain, and is willing to resort to violence to achieve its goal. Terrorist groups like ETA say "Give us what we want, or else." Whoever committed the Madrid bombings did not say, "Give us what we want," so their bombings were not "else." Bombings themselves were what they wanted. And it is not necessary to kill so many people at once to achieve a political goal, before the other side has had a chance to respond to their initial demand. (The Madrid bombers attempted to kill many more people than they actually did, by detonating the bombs when the trains were scheduled to be at a crowded station, but they failed because the trains were a few minutes behind schedule.) For example, the IRA (another "traditional" terrorist group) never kills (or even attempts to kill) 191 people at once, and they even attempt not to kill if they could achieve their goals otherwise. It is necessary to kill this many people at once *only* if killing itself is the goal, not means to a goal, as it is for Muslim suicide bombers.

In this connection, it is instructive to note that the Iraqi insurgents, who commit suicide bombings on a daily basis, have actually killed more than six times as many Iraqis as Americans (2,466 American troops vs. 6,004 Iraqi military and police personnel plus 10,131 civilians, as of January 29, 2007) (O'Hanlon & Campbell, 2007). It is as if the Iraqi insurgents are trying to eliminate as many of their intrasexual rivals (fellow Iraqi men) as possible, rather than killing American

troops (the infidels and occupiers). It turns out, however, that this pattern is very common. The Yale political scientist Stathis N. Kalyvas points out that insurgents killed more of their own ethnic groups than European colonizers in civil wars in Algeria, Angola, and Oman (Kalyvas, 2005, 2006). Note that all three nations are largely Muslim or in sub-Saharan Africa; all are moderately polygynous. While it is difficult to remember in light of the daily news reports from Iraq, insurgency has not always been a necessary response to foreign occupation throughout history. There was absolutely no insurgency against the Allied occupation after World War II in (entirely monogamous) Germany and Japan.

Conclusion

The evolutionary psychological imagination gives you a different perspective on world events, on "history," by linking it to our "biography." It allows us to see the universality of human nature, and how our "personal troubles" are the same everywhere. And many of the "public issues," not only in our own society but in every society, are intimately linked to the personal troubles of people like us. Many of the puzzles, not only about World War III but other current events, may begin to make sense when we look at the situation with the aid of the evolutionary psychological imagination. Maybe the Muslim suicide bombings are not "terrorist" acts, as the term is usually used. Maybe it has nothing to do with Israel or the American and British troops. Maybe it's all about sex, as everything else in life is. Men do everything they do in order to get laid (Kanazawa, 2003). Maybe young Muslim men are no exceptions.

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⁴ Of the Algerian civil war, Kalyvas notes: "What is particularly interesting is that although one would expect the violence to follow the ethnic divide (native/Muslim versus settler/Christian), it did not: intra-ethnic violence appears to have been more common than inter-ethnic violence, in a pattern that appears common to many civil wars that are fought via irregular warfare" (Kalyvas 2005, p. 96). Of the Angolan civil war, he notes: "There were many rumours of Portuguese atrocities, but the insurgents also proved very brutal, both against white settlers and the native population. The Angolan case matches the Algerian one in that when violence began it contained a strong demonstration effect along ethnic lines, but then switched to terrorisation and assumed a substantial intra-ethnic character" (p. 96). Of the Omani civil war, he notes: "This war differs from the previous two in that the insurgents were eventually defeated. Violence, however, was plentiful, featuring both an intra-ethnic and terrorist character" (p. 97).

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