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A Psychological Autopsy of 9/11 Ringleader Mohamed Atta

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Abstract Simple logic dictates that some suicide terrorists are more significant than others. However, major questions still remain about the motives and psychology of 9/11 ringleader Mohamed Atta, arguably the most significant suicide terrorist in human history. This article constructs a psychological autopsy of Atta in order to provide a much more complete explanation of his behavior. First, it suggests that accounts which solely attribute Atta's actions to religious and political ideology appear severely incomplete. It then reviews evidence that Atta may have been clinically suicidal, and that his struggles with social isolation, depression, hopelessness, guilt, and shame were extraordinarily similar to the struggles of those who commit conventional suicide. Finally, it considers how Atta's ideology may have interacted with his suicidal tendencies to produce his final act of murder-suicide on September 11, 2011.

Keywords Mohamed Atta · Suicide terrorism · Suicidal behavior · Psychological autopsy · September 11, 2001

Introduction

Simple logic dictates that some suicide terrorists are more significant than others. On the one hand, there are hundreds of suicide bombers whose attacks did not kill a single person other than themselves (Global Terrorism Database 2011). In fact, recent reports from Afghanistan suggest that approximately fifty percent of suicide bombers in that region meet this ignominious standard (Byman and Fair 2010). On the other extreme, there have been just nineteen suicide attacks in history which have produced more than one hundred fatalities (Global Terrorism Database 2011). And even among the terrorists who carried out these horrific strikes, some appear more significant than others.

When it comes to protecting human life and ensuring international security through sound counterterrorism approaches, it seems that understanding the motives and psychology of the most dangerous suicide terrorists should be our top priority. Although it is possible that all suicide terrorists are psychologically the same, and that the variation in the destructive yield of their respective attacks is merely a matter of luck and opportunity, there is not yet any direct evidence to support this view. By contrast, it would seem more likely that suicide terrorists who carry out hasty attacks which barely harm the enemy may be fundamentally different from those who successfully mount the most sophisticated and deadly strikes.

Along these lines, 9/11 ringleader Mohamed Atta is arguably the most significant suicide terrorist in human history. This is precisely why the United States government dedicated more than $12 million dollars and nearly two years to its official *9/11 Commission Report*. As the tactical leader of Al Qaeda's 19 hijackers, Atta directly brought about the death of nearly 3,000 Americans on September 11, 2001, and indirectly sparked the United States' global war on terror, along with its controversial invasions of Afghanistan and Iraq.

However, major questions still remain about Atta's motives and psychology. Past commentators have suggested that Atta was psychologically normal, that his motives were analogous to those of an ordinary soldier, and that his actions were purely the product of his powerful ideological beliefs (Achenbach 2001; Pape 2005; Pape and Feldman 2010; Weaver 2006). For instance, Pape (2005)

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has claimed that Atta was "not readily characterized as depressed, not unable to enjoy life, not detached from friends and society" (p. 220), and that his "psychological history, motivations, and behavior do not appear terribly different from those of…many soldiers from many cultures who saw their societies in desperate struggles for survival" (Pape 2005, p. 224). Pape and Feldman (2010) further insist that Atta was simply angry and attempting "to conduct attacks in response to foreign occupation of Muslims" (p. 180). Citing this scholarship, presidential candidate Ron Paul recently declared that "honest studies show that the real motivation behind the September 11 attacks" was primarily "foreign occupation" (Paul 2011). The problem with these explanations is that they lack specificity—they fail to clarify why Atta carried out a suicide attack, instead of the millions of other individuals who shared similar sentiments and ideologies (Pew Research Center 2003–2011). When counterterrorism officials can only narrow down their list of potential attackers to millions, that makes it extremely hard for them to prevent future attacks.

This paper will construct a psychological autopsy of Atta in order to provide a much more complete explanation of his behavior. First, it suggests that accounts which solely attribute Atta's actions to religious and political ideology appear severely incomplete. It then reviews evidence that Atta may have been clinically suicidal, and that his struggles with social isolation, depression, hopelessness, guilt, and shame were extraordinarily similar to the struggles of those who commit conventional suicide. Finally, it considers how Atta's ideology may have interacted with his suicidal tendencies to produce his final act of murder-suicide on September 11, 2011.

Method

This paper is built around a psychological autopsy, which is designed "to produce as full and accurate a picture of the deceased as possible with a view to understanding why they killed themselves." (Cavanagh et al. 2003, p. 395). This is a method which expert suicidologists have established "offers the most direct technique currently available for examining the relationship between particular antecedents and suicide" (Cavanagh et al. 2003, p. 395).

To this end, the resulting case study draws upon all available evidence about Atta's life from a range of sources, both primary, such as Atta's last will and testament and the suicide note recovered in his luggage, and secondary, such as government investigations, previously conducted interviews with friends and family, and media reports. One could argue that a psychological autopsy would be better conducted by going back today and interviewing all associates of Mohamed Atta, with the express purpose of uncovering his motives. However, given the decade that has passed since 9/11, the statements these witnesses would make today would arguably be less valid and reliable than the interviews they granted right after 9/11, when their memories of Atta were still fresh.

Other skeptics might question the validity of this method, due to their desires for "empirical" evidence and past academic pressures towards positivism. However, as Kruglanksi et al. (2009) have explained, "according to contemporary, post-positivist understandings of science, *all scientific inferences* are potentially invalid, *regardless of method*, and whether evidence is "*solid*" or not depends on the advancements of specific counterarguments and refutations, rather than general statements about 'systematic research design'" (p. 415). Therefore, if this article's explanation of Atta appears more convincing than past accounts, significant progress has been made.

Naturally, we may always desire more evidence and more details, but this should not keep us eternally wedded to the oversimplifications of the past. Simply put, there is no better way to understand Atta than to examine his life through an in-depth case study, and then put the findings in the context of more than one hundred years of psychological and sociological research.

Ideology

For years, most psychological explanations of suicide terrorists focused on their religious and political ideology. Past scholars have commonly claimed that although suicide terrorists may have been indoctrinated, they are motivated by their profound ideological commitment to the cause and are certainly not suicidal (Gambetta 2005; Hafez 2006; Israeli 1997; Pape 2005; Pastor 2004; Townsend 2007). To this end, in his condescendingly-titled article "It's the Occupation, Stupid," Pape (2010) claims to have *proven* that "more than 95 percent of all suicide attacks are in response to foreign occupation, according to extensive research at the University of Chicago's Project on Security and Terrorism, where we examined every one of the over 2,200 suicide attacks across the world from 1980 to the present day." Analyzing thousands of attacks sounds extremely impressive and is a great way to seem like an expert—until one realizes that in many of these cases, Pape (2010) knew nothing about the offender except his or her gender and attack location. It is impossible to accurately assess the psychology and motivation of a single suicide terrorist—much less 2,200—when you know virtually nothing about that person's life. Much more depth is required, which is why conducting a psychological autopsy is a particularly valuable approach.

It is certainly true that religious and political ideology eventually played a very significant role in Atta's life, but it does not seem to fully explain his behavior. Growing up, Atta was not particularly religious or politically active (McDermott 2005). As Cloud (2001) documents, while living at home in Egpyt, Atta "offered mainstream opinions…His friends don't remember ever seeing him pray, and they recall his harsh words for Islamic terrorists —'brainless, irresponsible people.'" Similarly, when he first moved to Germany, Atta was not yet radical. As his landlady recalls, Atta insisted "that he would not approve of violence to solve conflicts, and that there must be ways to convince people by other means" (Crewdson 2004). He began attending a mosque regularly and praying multiple times a day, but at least at first, he did not stand out as ideologically different. As fellow students recall, "He did not automatically disrespect opinions of non-Muslims…he participated in the interreligious dialogue" (Crewdson 2004).

Over time, Atta's views gradually became more radical. Another student recalls that Atta began to make "statements which show a negative attitude with respect to U.S. and Israeli foreign policy" (Crewdson 2004). Things changed more in 1995, after Atta returned to Germany following a pilgrimage to Mecca. As Volker Hauth, one of his only friends, remembers, upon his return Atta was "even more quiet, more introverted, and more fervent in his religious practice" (McDermott 2005, p. 32). These lifestyle changes seemed to affect each other: as Atta withdrew socially, he also became more fixated on religion. A year later, Atta wrote his last will and testament, pledging to carry out a suicide attack, and he began to increasingly espouse radical views. As another member of his mosque recalls, "The Jews, he thought, controlled the world of finance and the media…several newspapers in Germany, and the Jews also kept leading positions in banks, politics and business…The Jews had planned Bosnia, Kosovo and Chechnya as well, in order to fight the spreading of Islam, he believed. With respect to Israel, he was convinced that the Jews wanted to establish a theocracy between the Nile and the Euphrates, in order to chase away the non-believers" (Crewdson 2004).

Atta's growing radicalization directly coincided with his growing social isolation and depression, which will be discussed in more detail in the sections to come. But the key is that when Atta was relatively comfortable and secure living at home in Egypt, he was not inclined to support radical ideology. This type of cause-and-effect is relatively common. As U.S. prosecutor Ken Ballen, who has interviewed hundreds of terrorists, explains, "These are people with no kind of outlet. If you can't find love from your fellow men and women, that human connection, and the only way is through God, then you become more and more fanatical" (Daily Mail 2011). Atta attempted to fill the void in his life with something meaningful, and in this case that was a commitment to radical religious ideology.

However, that does not mean that it was radical ideology alone that prompted Atta's suicide attack. Pew Research Center surveys have found that approximately 90 million people worldwide believe that suicide bombings are sometimes or often justified to defend Islamic interests (Pew Research Center 2003–2011). Furthermore, among active terrorists, the vast majority explicitly state that they are unwilling to intentionally kill themselves for the cause (Merari 2010). They say things like: "I am willing to fight but not to die in a suicide attack," "I simply am not interested," and "This is no way to die" (Merari 2010, p. 119). Again, ideology is a *constant* among these individuals. So there must have been something else going on in Atta's life which explains why he decided to die.

Suicidal Risk Factors

Growing evidence shows that some suicide terrorists volunteer to carry out suicide attacks due to personal crises, mental health problems, and suicidal tendencies. For instance, Lester et al. (2004) found initial signs of suicidal traits among the suicide attackers they studied. In addition, Merari et al. (2010a, b) recently had four senior clinical psychologists perform assessments of 15 preemptively arrested suicide terrorists, 12 regular terrorists, and 14 organizers of suicide attacks. They found that 53 percent of the suicide terrorists exhibited depressive tendencies, 40 percent exhibited suicidal tendencies, 20 percent showed signs of post-traumatic stress disorder, and 13 percent had previously attempted suicide, unrelated to terrorism (Merari et al. 2010a, b). Although 60 percent of the suicide terrorists did not appear suicidal in the conventional sense, previous research on cross-cultural variations of suicidality suggests that some may have been suicidal in a less conventional manner (Holmes 2005; Lankford 2010a). Furthermore, other recent studies have shown that more than 75 individual suicide terrorists appear to have displayed classic risk factors for conventional suicide (Lankford 2010b, 2011). As the following evidence will show, in the case of Atta, these risk factors appear to have included social isolation, depression, hopelessness, guilt, and shame.

Social Isolation

Social isolation is a major risk factor for both depression and suicide (Maris et al. 2000), and Atta appears to have been socially isolated for most of his life. Social struggles during childhood increase the risk of similar problems in adulthood (Berne 1957, 1964; Steiner

1974), and in Atta's case, this cause-and-effect seems particularly straightforward.

As a youth, Atta was kept isolated by his overly rigid father, who explained that "We are people who keep to themselves. We don't mix a lot with people, and we are all successful" (McDermott 2005, p. 13). Community members similarly portray Atta's childhood as closed off: "I never saw him playing," one classmate recalls, "I think he wanted to play with the rest of the boys, but his father wanted him to always perform in school in an excellent way" (Buncombe 2001). The family was "like a set of rings interlocked with one another. They didn't visit and weren't visited," a neighbor agrees (McDermott 2005, p. 13–14). Again, this does not mean that Atta was necessarily depressed or suicidal as a youth, but it seems to be directly related to his struggles as an adult.

In his early twenties, Atta left his family, which was essentially his only source of social support. However, his departure was not voluntary—he was actually forced to leave by his father, who tried to rationalize it as being in his son's best interests. "My son is a very sensitive man; he is soft and was extremely attached to his mother. I almost tricked him to go to Germany to continue his education. Otherwise, he never wanted to leave Egypt" (McDermott 2005, p. 19). After restricting the natural development of Atta's social skills throughout his childhood, his father now jumped to the other extreme, forcing his son to develop a new social network completely on his own, while trying to adapt to a radically different culture, thousands of miles away from home.

Atta arrived in Germany not knowing anyone, except for a few people who helped him find a place to live. Not surprisingly, Atta found it difficult to make friends, and when he moved in with some local college guys, things actually got worse. Over three years in a small apartment, their cultural and individual differences were amplified, and Atta had trouble letting his guard down, fitting in, or bonding in any way (McDermott 2005). He had his own rigid expectations of how people should behave around the house, and his two roommates felt otherwise. They began to avoid each other, but eventually the social awkwardness turned to hatred. When Atta's roommates would go out to socialize, they made fun of him behind his back. One even joked with friends that "he hoped Atta wasn't back at the apartment making a bomb to blow himself up with" (McDermott 2005, p. 27). Although it was a joke, it had a kernel of truth, and appears to have been in direct response to Atta's very obvious depression and psychological pain.

As Hauth explains, "Over the years, [Atta] became more and more isolated and bitter, developed a tunnel vision…He didn't feel at home in Hamburg" (Lappin 2002). Atta moved out of the apartment, went on a *hajj* to Saudi Arabia, and returned "even more quiet [and] more introverted" (McDermott 2005, p. 32). In turn, a fellow student who tried to be warm and welcoming to Atta recalls that Atta seemed to have built a "wall" between himself and others (McDermott 2005, p. 47). This was corroborated by Atta's landlady, Doris Michaels, who explained how the young man made sure that there was "always a wall between him and [her] family" (McDermott 2005, p. 23.).

In their research on conventional suicide, Maris et al. (2000) have found many suicidal individuals "tend either to be socially isolated or to have negative social interactions. Indicators of social isolation…include being single…living alone; having no or minimal family relations or social support; having few, if any close friends" (pp. xvi-xvii). And as the preceding evidence has shown, this description is almost a perfect fit with Atta's first few years in Germany. In addition, when Atta finally began to socialize with a group of fellow Muslims in Germany, it may have actually contributed to his suicidal tendencies, because the experience was far more negative than commonly assumed. As Maris et al. (2000) explain, "not all social relations protect against suicide…[when] social relations or interactions are negative (painful, rejecting, deprecating… punitive… revengeful, etc.)…they tend to *raise* suicide rates" (pp. 252–253).

Even within the Hamburg group, which included eventual 9/11 hijackers Marwan al-Shehhi and Ziad Jarrah, Atta felt like an outsider. As McDermott (2005) explains, "When [Atta] was not around, the other men mocked his sternness and complained about all his rules" (p. 60). Apparently, Atta "had also begun to use a sort of rouge makeup; no one knew why. People made fun of him for that too" (McDermott 2005, p. 60). Occasionally, Atta's social vulnerability and discomfort would surface. As fellow group member Ahmed Maglad recalls, after an argument with Atta, "One evening he suddenly stopped me in a parking lot and asked me: 'Ahmed, why don't you love me?'" (Crewdson 2004). Due to Atta's rigidity, there was also serious friction between him and Jarrah, which at one point threatened to compromise the entire 9/11 plot itself (National Commission on Terrorist Attacks Upon The United States 2004). The critical point is that Atta's social struggles were continuously causing him major problems, and he still seemed incapable of truly fitting in. As late as 1999—long after joining the Hamburg group—Atta complained to a former classmate about his continued social isolation, lamenting that he felt like he had very few true friends (Cloud 2001).

Depression

Depression is an extremely common risk factor for suicide (American Foundation for Suicide Prevention 2010; National Institute of Mental Health 2009a). The U.S.

National Institute of Mental Health has identified eleven primary signs and symptoms of depression among men. The symptoms are as follows: "(1) Persistent sad, anxious, or 'empty' mood, (2) Feelings of hopelessness, pessimism, (3) Feelings of guilt, worthlessness, helplessness, (4), Loss of interest or pleasure in hobbies and activities, (5) Decreased energy, fatigue, being 'slowed down,' (6) Difficulty concentrating, remembering, making decisions, (7) Difficulty sleeping, early-morning awakening, or oversleeping, (8) Appetite and/or weight changes, (9) Thoughts of death or suicide; suicide attempts, (10) Restlessness, irritability, (11) Persistent physical symptoms" (National Institute of Mental Health 2009b). Some who suffer from depression only display a few of these symptoms; others exhibit many.

Based on available evidence, it appears that Atta displayed eight of these symptoms of depression. If Atta had "difficulty concentrating, remembering, making decisions," "difficulty sleeping, early-morning awakening, or oversleeping," or "persistent physical symptoms," he may have taken those secrets to the grave. However, he does seem to exhibit eight other symptoms prior to his suicide attack.

Persistent Sad, Anxious, or "Empty" Mood

There is significant evidence that Atta's mood often met the description of being "empty." Muslim convert Philip Kay recalled that Atta showed "no emotional excesses or peaks," and that he and other Muslims "eventually came to wonder whether Atta might be missing some essential human part" (Crewdson 2004). A more specific example of Atta's sad and empty mood was that he would almost never laugh. Kay could only think of a single example of Atta laughing: when he briefly played with a child on the street (Crewdson 2004). Similarly, his former landlady could only recall Atta laughing when he played with her grandchild (Crewdson 2004). Even in the widely seen video of Atta and Ziad Jarrah reading Islamic scripts approximately a year before 9/11, it is actually Jarrah who breaks out into healthy laughter. Atta cracks one awkward smile, which then quickly disappears.

The fact that Atta stood out among fellow Muslims as seeming empty and unable to laugh suggests that this was not simply the product of his religion or ideology. Other Muslims whom Atta studied, prayed, and plotted with, recognized that his somber mood seemed abnormal. Maglad recalls that Atta "thought that the heart would die through fun…He was convinced that there was not enough time in one's life to have fun" (Crewdson 2004). In turn, when Atta was asked by a fellow Muslim why he never laughed, he apparently responded "How can you laugh when people are dying in Palestine?" (McDermott 2005, p. 61). Another time, he told someone that "Joys kills the heart" (McDermott 2005, p. 61).

Feelings of Hopelessness, Pessimism

Hopelessness is both a symptom of depression and a direct risk factor for suicide itself (American Foundation for Suicide Prevention 2010; National Institute of Mental Health 2009b). Atta's hopelessness appears to have been rooted in two primary things: his inability to build a successful career, and his inability find a wife and get married.

The pressure on Atta to have professional success primarily came from his father, who explained that "I needed to hear the word 'doctor' in front of his name. We told him 'Your sisters are doctors and their husbands are doctors and you are the man of the family'" (Crewdson 2004). However, by 1999, after seven very tough years in Germany, Atta had made very little professional progress, and his dreams increasingly seemed impossible. Atta had wanted to get his master's degree and return home to live with his family in Egypt again, but he became increasingly afraid that it would be impossible because of the country's intolerance of Islamic fundamentalism (McDermott 2005). As Hauth explains, "He lived in fear of being criminalized for his religious beliefs" (McDermott 2005, p. 32). In addition, during a trip back to Egypt, Atta pleaded with his mother to try and convince his father to allow him to stay there permanently. She said no. She insisted that Atta must do what his father wanted, and go to the United States to pursue his doctorate (McDermott 2005). Atta lied and said he would, but a few months later, he was preparing for his suicide attack.

For Atta, the idea of being forced to once again start a new life, in a new country, thousands of miles away from his family and home, appears to have provoked feelings of hopelessness. After all, his similar attempts in Germany had been such an utter failure. As former classmate Ahmed Khalifa explained, when they spoke in 1999, Atta was depressed about not having a career, many friends, or his own family back in Germany (Cloud 2001). As Khalifa recalls, "I think he felt that he had just been studying all those years" (Cloud 2001). Similarly, Hauth explains that "increasingly, I felt a sense of despair in him, on a personal level" (Lappin 2002). Of course, if Atta had followed his parent's plan and pursued a Ph.D. in America, he would have had even less of a support system there than he had established in Germany. As Atta later lamented in his 2001 suicide note, "How much time have we wasted in our lives?" (Rubin and Rubin 2002, p. 233).

Besides his professional struggles, the other source of Atta's hopelessness appears to have been based in his inability to get married and start a family. As former landlord Doris Michaels recalls, Atta once admitted "that for him, being a practicing Muslim, it was not easy to be 24 years old and unmarried" (Crewdson 2004). If it was

hard for him at age 24, we can only imagine how hopeless and pessimistic he must have been due to his lack of progress when he became 31, 32, and 33. The evidence suggests that Atta never had a single romantic relationship and had probably never kissed a girl, much less had sex (Lappin 2002; McDermott 2005; Radwan 2001). He even had trouble talking with girls, so getting married would be quite the challenge.

Atta's overbearing father tried to solve the problem for him, but he may have actually made things worse. As his father explains, "I told him we should look for a wife for him. We went to visit a family, and Mohamed met the daughter and they liked each other. The woman's parents also liked Mohamed, but their only condition was that their daughter not leave Cairo. So Mohamed got engaged to her and then went back to finish his Ph.D" (McDermott 2005, p. 83). Ironically, this may have actually increased Atta's feelings of hopelessness, because the engagement was arranged based on a series of major lies that Atta had told his father. For instance, Atta's father arranged the marriage based on the agreement that his son was about to receive his Ph.D., but in fact, Atta had been lying to his father and was not even enrolled in a doctoral program. It must have been incredibly frightening for Atta, because it was only a matter of time before the truth would be exposed, at which point he and his family would be disgraced as frauds, and the engagement would be canceled.

Feelings of Guilt, Worthlessness, Helplessness

Guilt, worthlessness, and shame are not only symptoms of depression, but they are also direct risk factors for suicide (American Foundation for Suicide Prevention 2010; Durkheim 1897; Farber 1968; Lester 1997; National Institute of Mental Health 2009b). The evidence suggests that Atta often struggled with these feelings, although he tried to mask his pain from the world, as many people do.

Most broadly, Atta seemed fixated on the idea of being forgiven for past transgressions which he felt guilty about. For instance, in his last will and testament, which he wrote in 1996, he instructs that "Everyone who attends my funeral should ask that I will be forgiven for what I have done in the past (not this action)" (Atta 1996). Similarly, his "suicide note," which was found in his suitcase after 9/11 and may have been distributed to fellow hijackers, includes the following statements: "Purify your soul from all unclean things…erase your sins…Lord, forgive our sins and excesses" (Rubin and Rubin 2002, pp. 233–236). Here, Atta's reference to "unclean things" seems particularly indicative of specific guilt.

Overall, a major source of guilt and shame in Atta's life was the issue of sex. This may have been in response to his father, who desperately wanted his young son to "toughen up" (Lappin 2002) and may have unintentionally triggered his son's sexual insecurity. Atta's father later admitted that "I used to tell [Atta's mother] that she is raising him like a girl, and that I have three girls, but she never stopped pampering him" (Buncombe 2001). Atta's father also began calling his son "Bolbol," which is Arabic for "nightingale" (Buncombe 2001). He also described his son as being so non-sexual that he was "like a virgin girl in his politeness and shyness" (Radwan 2001).

This mocking may have made Atta feel guilty, worthless, and ashamed. Past research has shown that sexual shame and guilt are often rooted in childhood experiences (Bader 2002), and this appears to be accurate in Atta's case. However, instead of becoming more sexually daring to compensate, Atta began to avoid the subject of sex altogether. As cousin Essam Omar Rashad recalls, during their adolescence in Cairo, Atta would leave the room whenever belly-dancing programs came on the television (McDermott 2005). Atta's landlady in Germany remembers almost the exact same thing: Atta "putting his hands over his eyes and leaving the room when anything remotely explicit appeared on television" (Crewdson 2004). As McDermott (2005) further explains, "Even sleeveless blouses cause him to grimace" (p. 20). At times, Atta would even take detours on his way home, in order to avoid areas with scantily clad women. Hauth recalls that Atta "had no experience with women," and that he was so awkward and uncomfortable when talking with them that he was often considered quite rude (Lappin 2002). He believes that Atta must have literally died a 33-year old virgin (Lappin 2002).

However, it is also possible that Atta made sure to have sex before he died. Sometimes people who feel very guilty and ashamed about their sexual desires actually engage in risky sexual behaviors, when given the opportunity (Bader 2002). As Bader (2002) explains, "Sexual fantasies always find a way of turning the 'no' of guilt into the 'yes' of pleasure" (p. 33). For no clear strategic reason, Atta and his fellow hijackers traveled to Las Vegas, the so-called "city of sin," in August 2001. As Thomas (2001) speculates, "They stayed in cheap hotels on a dreary stretch of the Strip frequented by dope dealers and $10 street hookers. Perhaps they wished to be fortified for their mission by visiting a shrine to American decadence." There is no evidence of what Atta did while in Las Vegas, but if despite his fundamentalism, Atta had sexual contact with prostitutes, this could partially explain his guilt over "unclean things" and his resulting desire to commit suicide.

Of course, Atta may have experienced guilt and shame for other reasons as well. He may have felt guilty and ashamed that it took him seven years to complete his master's degree and that he was failing to live up to his father's expectations in a variety of ways. In addition, Atta

may have experienced "separation guilt" for abandoning his relatively young mother and moving to Germany. After he left, his mother was diagnosed with diabetes and began to have marital difficulties with his father, which ultimately led to the two of them being estranged (McDermott 2005). Even though it would not have been rational—guilt and shame rarely are—Atta may have blamed himself for these developments. In fact, past research suggest that separation guilt is surprisingly common, often unconscious, and many times linked to self-imposed sexual repression (Bader 2002).

Loss of Interest or Pleasure in Hobbies and Activities

A loss of interest or pleasure in hobbies and activities is another common sign of depression (National Institute of Mental Health 2009b). Unfortunately, there is so little evidence of Atta ever taking pleasure in hobbies or fun activities that it becomes hard to document their disappearance. As reviewed earlier, Atta's father was extremely strict, and prioritized education and studying above all else. One of the only stories of Atta playing as a child is a recollection of him holding secret, back-alley conversations with other boys, perched at adjacent windows from the upper levels of their homes (McDermott 2005).

In Germany, Atta does not appear to have engaged in any regular fun hobbies or pleasurable activities. As a former associate summarized, Atta "was reluctant to any pleasure" (McDermott 2005, p. 26). The one account of him going to a movie theater ended with him being so upset by the crowd that he never went again (McDermott 2005). More broadly, as Crewdson (2004) summarizes based on interviews of Muslims who knew Atta well, "Atta thought that no music of any kind had a place in the life of a devout Muslim, and that the same went for good food and fun." When group member Maglad would bring home delicious food, Atta would object and refuse to even taste it, complaining that "You are living your life like in paradise, and people are dying elsewhere" (Crewdson 2004). This seems like a classic example of Atta using his ideology as camouflage for his deep depression: he was even upset by other people's harmless fun and pleasure.

Decreased Energy, Fatigue, Being "Slowed Down"

It is common for depressed people to feel fatigued and burnt out, even when there is no clear cause for them to be tired (National Institute of Mental Health 2009b). In Atta's case, this particular symptom of depression could also signify "life weariness," which is positively associated with both having a death wish and engaging in suicidal behavior (Maris et al. 2000).

When Atta returned home to Egypt in 1999, he lied to his father, telling him that he was about to enter a Ph.D. program in the United States. But he did not lie to his mother—at least at first. She was the only person with whom he appears to have shared true emotional intimacy his entire life, and she had been suffering from diabetes and was in declining health. As McDermott (2005) recounts, Atta told his mother that "he was unsure about continuing his education. What he really wanted to do was stay; *he said he was tired*. He wanted to remain in Cairo and take care of her" (p. 84). In this case, it appears that Atta was expressing life-weariness: he did not feel tired because of a long day's work, but because of a long seven years away from home. It had been seven years of anger, hostility, depression, and a strict religious purity which he had needlessly defined as almost completely devoid of pleasure. And now he was tired of it all. However, his mother refused his pleas, and insisted that he obey his father's wishes, travel to America, and pursue a doctoral degree. Instead of arguing for what he wanted, Atta just gave in. But a few months later he made the final decision that he was going to end his life.

Appetite and/or Weight Changes

Changes in appetite or weight are another sign of depression (National Institute of Mental Health 2009b), and although the evidence of this in Atta's life is brief, it is compelling. As mentioned earlier, Atta would complain when other members of his group would bring home delicious food, even though there is nothing in the Quran to support this prohibition. Furthermore, at one point, Atta even expressed his displeasure with having to eat to stay alive. As one of his prior roommates recalls, "I remember sitting down at the table and Mohamed sighing, 'This is boring. Eating is boring.' He said it wasn't just that he wanted different food, it was just the act of eating" (McDermott 2005, p. 26). This statement supports the notion that Atta was depressed and increasingly weary of life. The simple task of eating now felt like it took too much effort.

Thoughts of Death or Suicide; Suicide Attempts

Depressed individuals also commonly have thoughts of death or suicide, and in some cases they make suicide attempts (National Institute of Mental Health 2009b). There is no evidence that Atta ever attempted suicide through conventional means, but this is not surprising, given strict Islamic prohibitions of suicide. In Atta's mind, hanging himself, overdosing on prescription drugs, or killing himself with a firearm would have sent him directly to hell (Lankford 2010b). However, there was a potential loophole

which Atta spent a great deal of time thinking about: "martyrdom attacks" had essentially become the only socially-approved form of suicide in the Islamic world (Holmes 2005; Lankford 2010a).

Atta wrote and signed his last will and testament in 1996 (Atta 1996). At this point, he was just 27 years old, and although he had decided to carry out a suicide attack, he had not made specific plans for when or where it would occur. Looking back, the five year gap between Atta's will and his suicide attack in 2001 might seem strange, but it is relatively common for suicidal individuals to struggle with their mental health problems for years before they finally kill themselves (Maris et al. 2000).

The content of Atta's will reads more like a suicide note than a true last will and testament. Unlike most people who write documents of this type, Atta says almost nothing about whom he wanted to receive his possessions, and he does not mention a single friend or family member by name to whom he will leave anything (Atta 1996). Along with several aggressive warnings towards non-believers whom he says "will be held responsible for not following the Muslim religion" (Atta 1996), the note has a strong undercurrent of anger and pain. Of the 18 points, a full third of them begin with the phrase "I don't want," and then follow with some specific restriction. For example, "I don't want anyone to weep and cry" and "I don't want anyone to visit me who didn't get along with me while I was alive" (Atta 1996). These statements sound more like someone who was depressed and bitter about his treatment at the hands of others during life, than like someone who is psychologically healthy and is looking forward to doing something heroic.

Restlessness, Irritability

Irritability and anger are another symptom of depression. In Atta's case, there were signs of irritability for years. Perhaps because of his many insecurities, Atta would become extremely anxious and hostile whenever his control was threatened or whenever he momentarily lost power over a situation.

During Atta's early years in Germany, some of his teachers tried to help him with a visa application, but he was abnormally resistant to being helped, snapping at them that "I am grown up now; I can take care of that myself" (McDermott 2005, p. 22). At this point, there was no evidence that Atta had any illegal behavior to conceal, so his irritability seems particularly inappropriate. Similarly, during his one experience going to the movies, which was mentioned earlier, Atta became extremely agitated just because the crowd was talking in conversational tones before the movie began. "Chaos, chaos," he muttered in disgust, and when he returned home, he stomped into his bedroom and slammed his door in anger (McDermott 2005, p. 26). Everyone has bad days and overreacts at times, but this anecdote seems to typify Atta's behavior over the course of many years (McDermott 2005). As mentioned earlier, along these same lines, Atta would criticize people for having fun or enjoying food—perhaps because his life was so devoid of any true happiness.

Even while at the mosque or when leading Islamic prayer groups, Atta was very rigid, stern, and irritable. Perhaps because he felt so threatened by the unpredictable behavior of others in social settings, Atta tried to structure religious study group sessions according to his own very strict schedule and set of rules. As a fellow student explained, "He wanted to be the boss. One had to do always what he wanted. He believed that what he did and thought was correct. His opinion had to be accepted" (Crewdson 2004). If, during the group's discussion of religious texts, this did not work and "anyone attempted to deviate from the established routine, Atta would grow visibly upset, chewing on his lower lip in agitation" (McDermott 2005, p. 61). He also would frequently criticize other students for seemingly any minor thing which set him on edge: their hair, their jewelry, their music, or even the way they prayed (McDermott 2005). Overall, it seems quite likely that Atta's constant irritability was the product of his broader struggles with depression.

The Interaction of Suicidal Risk Factors and Ideology

Around the world, there are many thousands of suicidal people, but the vast majority do not carry out suicide terrorism attacks. On the other hand, some desperate and hopeless people do carry out acts of murder-suicide. Although it is relatively rare, past perpetrators have slaughtered seemingly random innocent victims at government buildings, restaurants, shopping malls, schools, and a variety of other public places, and then shot themselves in the head (Lankford and Hakim 2011). In many of these cases, there was no trace of an ideological motive. In other cases, those who carried out murder-suicide claimed an ideological motive, such as a fight for Neo-Nazism, eugenics, or an anti-government revolution. Close examination of these attackers' lives often reveals that their ideological claims appear to have been a phony rationalization—a way they could make themselves feel extra important and justified on a larger, societal scale (Langman 2009; Newman et al. 2004).

However, as this article has shown, both suicidal risk factors and ideology factored prominently in Atta's life, and their interaction may provide the most complete explanation of his final behavior. For instance, Atta's religion helps explain why he did not just kill himself, hang himself, or shoot himself in the head. As Abu Ruqaiyah (1997)

explains, suicide is considered "one of the greatest wrongdoings" a Muslim can commit: "Allah says: 'Do not kill yourselves…he that does that through wickedness and injustice shall be burnt in fire.'" Islamic fundamentalists support this view and similarly condemn conventional suicide as "weak," "selfish," and "mentally disturbed" (Post et al. 2009, p. 15). Given this ideological context, even if Atta fully admitted to himself that he wanted to commit suicide, he would have had reason to try and disguise his motives by carrying out a "martyrdom operation" (Holmes 2005; Lankford 2011).

In addition, Atta's ideology helps explain the target for his suicidal rage, and why he did not simply carry out a suicide attack at a public place in Germany, where he could have easily killed plenty of innocent civilians along with himself. As noted earlier, Atta subscribed to the belief that the primary threats against Islam were (1) a Jewish conspiracy which was orchestrating attacks on Muslims in Palestine, Bosnia, Kosovo, and Chechnya, and (2) the United States, which was supporting Israel and similarly engaged in a war on the Muslim people (Crewdson 2004; McDermott 2005). Without these ideological views, Atta would have never made his original plans to travel to Chechnya and blow himself up in a suicide attack there. It was this initial goal which led Atta to Afghanistan and Al Qaeda, where he planned to train and acquire the requisite explosive materials for his suicide attack. As it turned out, it was only after he arrived in Afghanistan and met with bin Laden that Atta agreed to redirect his suicidal rage at the U.S. (National Commission on Terrorist Attacks Upon The United States 2004).

Again, without the specific tenets of Atta's ideology, he may have still killed himself or carried out an act of murder-suicide. However, both the specific method for how he ended his life and the specific target which he chose to attack would almost certainly have been very different.

Conclusion

Over the years, there have been many attempts to explain the psychology and motives of suicide terrorists. In the past, most scholarship has centered on the religious and political ideology of these attackers. Scholars who subscribe to this view commonly claim that suicide terrorists are motivated by their profound ideological commitment to the cause and are certainly not suicidal (Gambetta 2005; Hafez 2006; Israeli 1997; Pape 2005; Pastor 2004; Townsend 2007). By contrast, growing evidence shows that some suicide terrorists struggle with personal crises, mental health problems, and suicidal tendencies which play a major causal role in their violent behavior (Lankford 2010b, 2011; Lester et al. 2004; Merari 2010; Merari et al. 2010a, b).

This article constructs a psychological autopsy of Atta in order to provide a much more complete explanation of his behavior. Despite past assertions to the contrary (Achenbach 2001; Pape 2005; Pape and Feldman 2010; Weaver 2006), the details from Atta's life show that he was far from psychologically normal. This evidence helps explain why Atta volunteered to intentionally kill himself, unlike the millions of terrorist sympathizers and tens of thousands of terrorists and terrorist leaders who support the cause but are personally unwilling to carry out suicide attacks (Lankford 2011; Merari 2010; Pew Research Center, 2003–2011). Even among other Islamic fundamentalists, Atta stood out as abnormal because of his social isolation and awkwardness, his shame around issues of sexuality, his rejection of pleasurable activities, his statements that "Joy kills the heart" and "Eating is boring," his signs of life-weariness, and his rigidity and irritability. On the other hand, most suicidal people do not carry out suicide attacks. The most complete explanation of Atta's psychology suggests that his ideology interacted with his suicidal tendencies to produce his final act of murder-suicide on September 11, 2011.

As mentioned earlier, simple logic dictates that some suicide terrorists are more significant than others, and Atta was arguably the most significant of them all. However, it is not yet known whether Atta's psychological abnormality was in any way linked to the magnitude of his destructive attack. Future studies should strive to ascertain whether the suicide terrorists who carry out the most deadly and sophisticated attacks tend to be more like Atta, or more like the thousands of relatively anonymous suicide bombers who have carried out small scale attacks around the world. To this end, detailed psychological autopsies should be conducted on the other 9/11 pilots and hijackers, as well as the other most lethal suicide terrorists. Although conducting research at this level of depth can be challenging, it would certainly help determine whether or not their behavior was produced by a similar interaction of ideology and suicidal risk factors. Ultimately, if scholars want to prevent future high-magnitude suicide terrorism attacks which will leave thousands dead, they must accurately understand the psychology of the most dangerous and destructive attackers.

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