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ABSTRACT

Why do young Muslim women radicalize and undertake high-risk political behaviors, and what factors influence their sociopolitical transformation? The process of radicalization happens because of individual, social, and political dynamics, and is facilitated by the availability of computer-mediated communication. Some young Muslim women keep detailed records of their radicalization process via social media, which we use to understand their sociopolitical transformation. By evaluating their language, we can better understand how their personal, social, and political development unfolds. This paper is a case study examining the words of one young Muslim woman, Aqsa Mahmood, who moved from her home in Scotland to join the ISIS fighters in Syria. Her Tumblr blog provides a linguistic, political, and ideological record of the process of her radicalization. We identify linguistic patterns in her blog posts that can help to develop and reveal a typology of the language of female radicalization.

Introduction

When Thomas Hegghammer wrote about foreign fighters and the globalization of jihad just a few years ago, recruits were assumed to be male.[1] In fact, most references to women and transnationalism portrays them as victims of war, rather than active participants. In general, women are viewed in specific, gender-conforming ways as they relate to conflict: as primarily passive participants in civil wars; in comparison to male counterparts in active combat; and as exceptions to the male rule in suicide missions.[2] Female transnational recruitment to participate in high-risk activities has lacked traction in scholarship.[3] In this paper, I address a relatively new phenomenon that has recently emerged in international terrorism: young, Western, Muslim women undergoing a process of online radicalization and emigrating (making *hijrah*) to Syria to become "jihadi brides" of ISIS fighters.[4] These recruits tend to be young women with unrealistic expectations of the lives awaiting them in Syria. The strict, gendered social rules of the society ISIS has created across the Levant prohibit women from participating in combat, but rather encourage their supporting roles in childbearing and community maintenance. Given the logistical difficulties of emigrating to Syria, and prospects for living a dangerous life of hardship far

removed from the comforts of home, what explains their decisions to participate in such risky activities?

The central question I address in this paper is, why do young Muslim women radicalize and undertake high-risk political behaviors, like emigrating to a war zone, and what factors influence their sociopolitical transformation? Similar to the ecological systems framework, her language reveals that radicalization sits at the intersection of three distinct factors: individual circumstances; social forces; and the geopolitical context.[5] Some women undertake the journey from their home country to Syria and integrate into society with little notoriety, while others become leaders and actively recruit new female members. Others are intercepted before reaching their destination.[6] In late November 2014, news media outlets began reporting on the disappearance of a teenage Scottish woman, Aqsa Mahmood (hereafter, "AM"), whose family was concerned about her well-being and troubled by her alleged whereabouts: the front lines of the conflict in Syria. She maintained a blog prior to and after emigrating that chronicled her political radicalization. Using her story and words, I advance a framework to help explain this new transnational phenomenon and recruitment of young women.

By all accounts, AM was a bright young woman from a Pakistani immigrant family who lived a privileged life in Scotland. She attended elite schools and enjoyed secular pastimes, like reading Harry Potter and listening to Coldplay. Her writing often lacks insight and depth, and indicates a sense of boredom at times. For example, she writes about making prank phone calls, and getting a laugh at the expense of other young women.[7] She also tends to reblog block portions of text from religious teachings. Taking the kunya Umm Layth, AM blogged about the process of her radicalization using the Tumblr platform (fa-tubalilghuraba.tumblr.com) from October 2013 to September 2015.[8] The kunya as an Arabic naming convention signifies that the bearer takes the name "Um/m" or "Abu" plus the name of the firstborn son, ascribing social significance not only to the nominal change, but also to the personal identity transformation. From the content of her blog posts, it appears that AM takes this kunya before having children, putting the proverbial cart before the horse. While this is somewhat unusual, Notzon et al. note that the kunya is of such social importance that even a childless person may adopt this name, as "mother of" a particular quality or character trait.[9] In Arabic, Layth means "lion," a name similar to Leon or Lionel. In adjectival form as "lionlike" this name is synonymous with distinguished, esteemed, famed, high-ranking, renowned, and illustrious.[10] I further elaborate on the social significance of this in the subsequent section on *power*.

I propose there are multiple individual level factors influencing AM's path to radicalization. The individual level includes age-appropriate developmental markers, the political cues provided by her immediate family and community, as well as her own personal attributes. Another is social, and rooted in the religious and society-level attributes that characterize her self-identity. Yet another relates to the geopolitical environment that can provide strong incentives for recruitment to high-risk activity. Saltman and Smith identify a set of "push" and "pull" factors that influence young women's radicalization processes.[11] Push factors include a feeling of social or cultural isolation or lack of belonging. This socio-cultural disjuncture invites radicalization because there exist few mechanisms available for young Muslim to resolve the frustrations over what Saltman and Smith identify as feelings of global Muslim persecution and lack of international response. Pull factors include a sense of religious duty, sisterhood, and "romanticization of the experience." Both

push and pull factors are evident in AM's blog narrative, as I describe in detail in this manuscript.

These push and pull factors in AM's language also align with the four-step radicalization framework proposed by Silber and Bhatt that involves pre-radicalization, self-identification, indoctrination, and jihadization.[12] Different from their framework, which seeks to explain why Western men radicalize and subsequently perpetrate attacks as acts of terrorism, an increasingly common outcome of female radicalization is emigration whereby they play support roles in foreign territories to male jihadis. This process is more similar to the radicalization of Colleen LaRose, a.k.a. Jihadi Jane; I argue that the confluence of these attributes contributes to the radicalization process of young Muslim women like AM.[13] Bronfenbrenner's work complements this perspective from an ecological systems approach. His framework suggests that an individual's social world is conceptualized as having various levels: micro (e.g., family, school), meso (interconnections between the microsystems), exo (e.g., social settings where the individual is not an active participant but still impacted by things such as politics and mass media) and macro levels (e.g., attitudes and ideologies of the culture). An individual may influence and be influenced by the change of their immediate settings, between these settings and the contexts in which they are embedded.[14]

The social significance of blogging as persuasion

Social media provides a public forum for young women like AM to publicly process their individual, social, and political transformation, connect with other women contemporaneously undertaking the same process, and recruit and inculcate new, younger women. Her blog provides a rich source of linguistic data that reveals her process of radicalization. I approach this data as an exploratory case study to test hypotheses about language use during the process of radicalization, grounded in theoretical foundations of individual motivations and group membership.[15] Even given the case study nature of this research, its alignment with existing theoretical perspectives on radicalization allows us to make some generalizations and formulate some expectations about how language is used throughout the radicalization process.

To begin, of what is AM's blog an instance or example? The blogging world (or "blogosphere") encompasses myriad subjects both lighthearted and profound, and can be expository and narrative, filled with words, pictures, videos, and hyperlinks. They can also be propagandist, as the Internet serves as a fertile radicalization mechanism for recruiting new members and participants. As Conway notes, paying attention to gender and online radicalization is increasingly important as women's influence becomes more important in the war of messages and inflicting damage to host countries' morale and capacity to contain transnational recruitment.[16] Conway also suggests ethnographic studies and participant interviews to the list of methodologies and approaches to understanding online extremist recruitment. For this study, interviewing AM was not possible; however, the longitudinal nature of the blog provides additional depth and insight into the internal narrative and external forces influencing her radicalization. AM's blog initially functions as a personal journal, documenting her personal and religious transformation, but can it also be considered propaganda? The answer to this question depends on the focus of her audience, which Klausen addresses as the "staging and communication of

terror."[17] As Klausen notes, the majority of internal, private documents retrieved from jihadists relate to religious propaganda, not to operational or organizational issues. Interestingly, we see the audience change as AM engages with other bloggers and online personalities throughout her writing. AM's writing takes a distinctly pedagogical and externally oriented focus after emigrating to Syria, engaging more actively with social processes and deliberately persuasive narrative.

We can understand AM's approach to online propaganda in a broader historical context. Mass-communicated propaganda facilitated the widespread distribution of messaging long before the Internet era. As Goodnow and Kimble suggest, the advent of technologies of mass communication such as the printing press, still and moving pictures, and broadcast media, enabled propagandizing to domestic audiences, even as they note the history of persuasive communication with the masses back to the Roman era circa Caesar, through the Catholic Church's medieval missives.[18] What comic books were to the World War I effort, user-generated blog content is to the contemporary era. The relationship between pictures and text, through symbolic representation of ideas as well as photo and narrative journalistic accounts of war realities, has matured since the comic book era to become an interactive format, engaging multiple audiences and expanding the content beyond the initial post through discussion forums and comments sections. Goodnow and Kimble begin with a definition of comic books, tracing them from periodicals to comic strips to pulp novels with storylines, recurring characters, and sequential events to explain the function and form of this medium.

Radicalization and the individual

Privilege

Privilege has several implications in this context: Western affluence; access to high quality education; and technological savvy. Because AM has her basic physiological and safety needs met through her stable family and home life, she has the ability to focus on more conceptually complex endeavors, like political radicalization.[19] Privilege as an individual-level attribute like race, socio-economic status, geographic location, and sex/gender can facilitate radicalization because it affords the means not only to join but also to become a leader within the desired radical group. Historically there is anecdotal evidence that some individuals who engage in high-profile, high-risk political activity come from privileged backgrounds. They simultaneously reject that privilege to join ranks with those they deem to be persecuted and oppressed, while leveraging their privilege to assume higher ranks and positions of leadership and control within the organization. One such individual is the Latin American revolutionary leader Ernesto "Che" Guevara, who came from an affluent family and was trained as a doctor. Another is Subcommandante Marcos, who is rumored to be an academic and is the figurehead for contemporary resistance in the Chiapas region of Mexico. Osama bin Laden also rejected remarkable privilege to become an insurgency leader in Afghanistan, eventually taking his message and tactics global. In spite of this anecdotal evidence, privilege serves as a weak predictor as instances of political radicalization like Guevara, Marcos, and bin Laden are rare. In other words, more privileged people do *not* reject their privilege for a life of high-risk political activity, than those who do. What, then, do those with privilege seek in radical political groups?

These individuals seek validation and status. A combination of both individual and organizational features influence which people emerge as leaders in radical groups. Group-level features can incentivize individuals with initiative or leadership potential to flourish within the organization. For example, radical political groups are often organizationally dysfunctional and comprised of what Thoroughgood et al. describe as "destructive leadership," which provides a low barrier to entry and promises of power for the disaffected privileged.[20] Building from Barbuto's framework[21] that locates follower compliance in three categories (leader's perceived bases of power; follower's sources of motivation; and follower's resistance level), Thoroughgood et al. identify five types of participants who seek to join dysfunctional organizations: lost souls, authoritarians, bystanders, opportunists, and acolytes. The lost souls represent a particularly "susceptible follower" whose "strong affection, devotion, and idealization of the leader result in dependence and vulnerability to manipulation." Furthermore, lost souls are also "inclined to obey unethical orders given their loyalty to the leader and desire for his or her approval."[22]

Briefly during the initial phase of her writing, AM appears to fit the "lost souls" category, having suffered some personal or professional losses that rendered her vulnerable to seeking redemption through religious indoctrination. She wrote, "Even though last year was my most depressed year ever I'm so happy everything that happened to me, happened. Because if it didn't, I wouldn't have realized how amazing my life is with Allah in it."[23] It is unclear from her writing what specific losses she experienced; one can hypothesize that this might relate to a missed educational opportunity, an unfulfilled expectation about employment, or a personal relationship gone sour. It is clear, however, that this personal loss affected her profoundly and points to a specific moment in time where her path in life could have gone very differently. Following this loss, joining ISIS provided a sense of purpose and meaning to her. In *The True Believer*, Eric Hoffer cynically discusses how individuals join social movements to fill a void in their lives and seek personal meaning through their political involvement.[24] They lose themselves in the fervor and as he writes, they are "reborn" through participation. According to Hoffer, true believers are lacking in personal substance, and thus the movement provides it, filling their life with purpose. This phenomenon holds true with personal losses that leave individuals disoriented, and thus vulnerable.

Following along Thoroughgood's typologies, AM transforms into the "acolyte" role, becoming a true believer and taking an active role in fostering the goals of the group (ISIS/ Daesh).[25] The acolyte definition also echoes Hoffer's assessment, as they are "true believers who do not require strong inducements from destructive leaders to aid the organization in achieving its toxic goals."[26] Interestingly, AM does not seem to fit the profile of a vulnerable, alienated young woman; in general her life was not one lived on the margins of society or in dire circumstances. Her family lived in an affluent neighborhood, she was studying radiography at university, and was characterized as bright and popular. Her father was the first Pakistani cricket player for Scotland, gaining him acclaim and notoriety. She did not become a true believer through familial indoctrination, as her parents have asserted that they are moderate Muslims and her blog insinuates that her upbringing was relatively apolitical.[27] AM did not always cover her head with the hijab and was not raised to have extremist political beliefs. In trying out her new identity as strict adherent to the teachings of Islam, AM notes that her family disapproved of the

abaya and struggled to reconcile their judgment with her budding political and religious awakening.[28]

In summary, privilege affords young women the ability to become subsumed by the religious, social, and political forces that overtake their identity. They focus less on themselves, and more on the external environment. From this discussion I generate my first two expectations about her language:

Expectation 1a: *References to self will decrease over time.*

Expectation 1b: *References to others will increase over time.*

Power

Transnational terrorist activity has traditionally been viewed as violence perpetrated by non-state actors across borders, and substantial literature has focused attention on the "demand" side of these activities, including the targets and outcomes of violent terrorist acts. The "supply" side has also been studied in depth, specifically related to males who both cross borders and who perpetrate local acts of terrorist violence, and women who are recruited to engage in violent political behavior.[29] Much less is known about women who cross borders, especially those who travel long distances, to participate in violent political activities. This new transnationalism targets young, privileged, and naive women from Western countries.

In her first blog post four months after arriving in Syria and three months after getting married, AM warns other young women about the dangers of idealizing emigration.[30] This blog post predates the Al Khanssaa Brigade's subsequent manifesto that outlines standards of behavior for women in the caliphate. While that document clearly portrays the perils of Westernization, AM embraces Western culture in her writing through her cultural references. Overall, through her blog she reveals that her motivations are highly personal in different ways, expressing dissatisfaction with her life, estrangement from her family, and admiration for those participating in resistance in Syria. In examining the language patterns in her blog, emotion features prominently in demarcating her sentiments before and after making hijrah. High-risk political activity is associated with strong emotions, both positive and negative. AM's writing clearly leverages affective language in describing her worldview, aspirations, and disposition. Sentiment reveals self-perceptions of powerlessness and powerfulness; positive language is associated with feelings of greater efficacy and power, while negative language is associated with being passive and ineffectual, lacking personal agency. Periods of indecision are often marked by negative feelings and language that reflect emotional depression; however, once the individual makes a choice, they may experience a feeling of euphoric relief, observable in their language as a surge in optimism. The process of transnational recruitment to high-risk political activity, including the decisions and preparation required to undertake such a process, likely affected AM in such a manner. From this I derive my second set of expectations:

Expectation 2a: *Positive language will increase after emigration.*

Expectation 2b: *Negative language will decrease after emigration.*

Different from other female ISIS joiners, she becomes a central figure in recruiting other vulnerable young women as her radicalization expands to proselytization and conversion. Her prolific writing provides a window of insight into the thoughts, emotions, patterns of language, and subject matter between January 22, 2013 when her blog begins, and November 24, 2014 when she moves to Syria. During this time she authored more than 300 unique entries into her Tumblr blog, chronicling the process of her political radicalization. AM's political trajectory, while unusual, is not unprecedented. She is one of more than 550 women (out of more than 4,000 total foreigners, both men and women) who have moved to Syria to join ISIS.[31] These young women,[32] women as young as 14 years old, come of age from throughout Europe, the United States, as well as Australia and have also left or attempted to leave their homes. (However, in recent months, emerging narratives of disillusioned young women have emerged in mainstream media; whereas ISIS held sway over their early decision to emigrate, they found that the daily realities of life in Syria did not match their fantasies or expectations.[33])

As a Muslim woman from a Western society, AM holds a privileged position as she straddles the line between familiarity with both Islamic and Western cultures and practices. She is an ambitious opportunist, availing herself to the ISIS group by becoming a reliable recruiter of other young women. By leveraging her Western-ness and facility with contemporary vernacular, AM became an indispensible intermediary between the Syrian battleground bachelors, and eligible, idealistic young women vulnerable to her propaganda. AM's blog is called Fa-tubalilghuraba which translates as "blessed are (or 'blessed be') the foreigners."[34] The name implies that foreigners hold special esteem to AM, considering she is one of them. An outsider wanting in, AM used her blog as a springboard into the Syrian conflict. She was able to insert herself as a central figure with elevated status into the organization. She is responsible for recounting her own radicalization as well as soliciting new members to join her in Syria. It is likely that her blog originated as a central repository for sharing her own personal thoughts about joining the conflict in Syria, and evolved to be a recruiting tool for other young women. Other young women may feel a kinship and camaraderie with AM, as her writing is accessible, if amateur.

As Bloom notes, radical exclusive groups hold particular sway over women seeking personal validation, recognition, purpose, community, and the potential for leadership.[35] Women emigrants are cultivated as assets by both male and female leadership within the organization. Literature on sexual predation reveals a similar go-between function whereby intermediaries solicit younger victims for an older perpetrator.[36] This arrangement elevates the esteem of the intermediary in two ways. First, the predator rewards the intermediary for procuring new victims. Second, the intermediary finds a new admiring audience in the victims who provide admiration and validation. In short, the intermediary gains rewards both from above and below, and AM has every incentive to continue in that gratifying role as it further solidifies her position of power.

As a clever, well-educated young woman, she appears deliberately entrepreneurial in inserting herself into a conflict relatively devoid of female leadership, and it is important to note how gender and power interact in this scenario. The ISIS leadership likely

recognized these characteristics and actively recruited her.[37] While this political radicalization has been described by popular media as being uni-directional, i.e., exclusively at the behest of the young women undertaking the decision, recent academic scholarship has proposed that male ISIS members are actively complicit in recruiting vulnerable young women using techniques familiar to those used by child predators. Their research indicates that there is a reciprocal relationship between the ISIS fighters *in situ*, and the young women they recruit to join them. Further, these women are enlisted to help recruit other young women through online propaganda.

In Scotland, AM was innocuous and quotidian, but in Syria, she became notorious and powerful both through her blog and her physical presence. As the daughter of a Pakistani immigrant to Scotland, she may have pursued self-limiting strategies of assimilation to deliberately or inadvertently keep a low profile, shortchanging her achievement and potential. Since immigrants may encounter penalties (i.e., stigmas, castigation, prejudice) for social, academic, and economic participation and success, some may find it advantageous to not be exceptional. Migration research demonstrates how immigrants and minority groups in Europe achieve labor market success at different rates than do majority groups.[38] Thus it is unsurprising that AM's realization of personal power emerges after she emigrates to Syria.

From this discussion, I generate the following expectations about her language:

Expectation 2c: *Power language increases after emigration.*

Gender and expectations

Another individual-level explanation is that her participation is similar to that of women who choose to become suicide bombers. Recent scholarship on female recruitment to suicide terrorism notes the differences between men and women's motivations. Specifically, men tend to participate in high-risk political activity for nationalistic or religious reasons, whereas women tend to do so for personal reasons. These personal reasons include experiencing war crimes like rape; women elect to participate in high-risk activities out of retribution or reclamation of their dignity. Men and women face different motivations for participating in high-risk behavior, and women's involvement stems from intimate and closely held reasons. Women's participation as active combatants generally takes place when they have experienced personal losses that invalidate their primary roles in society as caregivers, like losing husbands or other family members. Under these circumstances they can approach the battleground's front lines.

Regarding female suicide bombers Clara Beyler writes that, "There is a difference between men and women suicide attackers: women consider combat as a way to escape the predestined life that is expected of them. When women become human bombs, their intent is to make a statement not only in the name of a country, a religion, a leader, but also in the name of their gender."[39] Beyler further identifies the objectification of women in their role as martyrs, as they only attain agency as "weapons in the hands of the men of the terrorist organization."[40] While women have been largely prohibited from active participation in combat as fighters or martyrs in ISIS operations, they fulfill similar

roles—objectified as singular-dimension functionaries performing traditional female gender expectations of domestic and social organization.

ISIS differs from other terror organizations, however, in that it has historically expected women to fulfill gender-typical roles in society. AM's radicalization is unlike that of politicized Palestinian women, or women recruited to join Al Qaeda, because she did not suffer intimate personal losses as many other women had.[41] However, trauma need not be personal to be meaningful, as studies of PTSD have shown that individuals can exhibit symptoms from secondhand exposure to traumatic events.[42] Coming of age during the global War on Terror, AM may have experienced vicarious traumatization, connecting empathetically to the losses felt by other women, families, and groups targeted in this global campaign against terrorism, while experiencing a sense of alienation from Western European society as a woman of color and a child of immigrants.

In other ways, AM uses gender as leverage to manipulate other women in Syria to secure her position in the female hierarchy. In early 2015 well after Aqsa's emigration, the Al Khanssaa Brigade published a women's manifesto, a prescriptive document detailing the rigid expectations for female supporters of ISIS.[43] It would be unsurprising if Aqsa contributed directly to this document, given her leadership role in the organization. The treatise is distinctly misogynistic, compelling women to abide by a sedentary lifestyle, and quarantining them in the home except under special circumstances. It levels criticism at international humanitarian organizations for ensnaring Muslims under their purview and encouraging fraternization between Westerners and non-Westerners. It prescribes the nature of relationships between men and women, universally disadvantaging and disempowering women in favor of male dominance. Consistent with other clan-based predatory marriage practices, ISIS proclaims that an acceptable age of marriage is nine years old.[44]

Her first post in-country after emigrating to Syria is surprisingly defiant and out of step with the al Khanssaa Brigade's strict gender-specific norms.[45] In this post (December 5, 2013) she mentions men's weaknesses, and women's superior strengths in waging war. Within three months, she had gotten married and was emerging as a leader in recruiting other young women to follow her path to emigration. A blog post on March 12, 2014 describes in detail a list of things that other young women should know before emigrating.[46] This blog post helps to position her as the local expert on emigrating to Syria and solidify her power as a recruiter. Interestingly, she notes that the blog post is not intended to be boastful or bragging; however, in saying this, her words convey a sense of false modesty and self-awareness of her own power.

AM discusses five points to help other young women prepare for the journey. She first mentions a list of practical items to bring. She then talks about the inward transformation and radicalization process that each woman must undertake for herself. Next she discusses a typical day in the life of a voluntary emigrant in ISIS-held Syria. Subsequently, she explores the structure of living arrangements for single and married women. Finally, she quashes any hopes of women participating in active violent campaigns, which she calls jihad. Following this post, several other young women appeal to AM for more information, solidifying her position as a relatable intermediary and key figure in recruiting other women to transnational violent political activities.

Overall, the ISIS media strategy for ensnaring young women and winning over new converts is very different for Western and Arab audiences. While Western media focuses on the gruesome tactics ISIS uses, its utopian message resonates with Arab audiences,

including those outside the Levant. It is this reality where women occupy roles consistent with traditional gender expectations of prioritizing family and homemaking over work, i.e., women as child-bearers and subservient to men, that AM chose for herself. From this discussion I generate the following gender-related expectations.

Expectation 3a: *References to work will decrease over time.*

Expectation 3b: *References to home will increase over time.*

Youth

Age plays a large role in young people's susceptibility to recruitment to high-risk political activity. When AM began her blog as a middle-teenager, she held a romanticized and uninformed perspective of what lay ahead of her. Her uncritical approach to receiving and integrating new information reflects an age-appropriate response to novel and compelling ideas, although recent work suggests that college-age individuals do regard themselves as critical, discerning thinkers as related to the topic of radicalization and extremism.[47] This tug of war between the preoccupation of youthful exploration and the depths of religious and political awakenings are indicative of a familiar developmental stage: adolescence. During this time, teenagers care about what their parents or caregivers think, and also are learning to exert more self-regulation.[48] Teenage rebellion is a well-worn, universal trope across cultures. In her blog posts, AM demonstrates that her parents' approval matters to her, writing about how they respond to her radicalization, and how she misses her mother after making *hijrah*. On the other hand, she makes deliberate choices about her involvement with ISIS activities in contradiction to her parents' values and beliefs.

Another explanation for her susceptibility to radicalization is that her family's moderate beliefs and her relatively apolitical upbringing may have played a more deterministic role in her life than previously attributed. Jennings and Niemi find that parental cues have strong influence during the teenage years but that influence declines with age, and more recent work by Jennings and Beck reaffirms this perspective.[49] Importantly, other research has suggested that children from apolitical and weakly political families may be more susceptible to radicalization for the following reason: In the absence of clear, strong political cues from their family, impressionable young people may attach to radical political beliefs purveyed by outside actors, especially when proffered positions of power. This may especially be the case with online radicalization, as I discuss in a subsequent section. When parents are relatively silent on political matters, other voices fill the void. In this case, the accessibility of online political messages significantly swayed her personal convictions and trumped her family's more moderate sensibilities. AM wrote that her father had noticed her withdrawing from her family and friends, but this failed to raise any red flags.[50]

Biological factors likely also contribute to her radicalization as well. Studies have shown that the underdeveloped prefrontal cortex in adolescence coincides with faulty reasoning and impulsive behavior.[51] Given that this area of the brain, which is responsible for decision-making and risk-taking behavior, is not fully developed until the mid-20s, there appears to be a biological predisposition for adolescents and young people to

participate in higher risk activities, with fewer reflective pauses to consider long-term consequences.[52] Pape suggests that individuals like AM are rational actors, engaged in strategic behavior by organizing their preferences and priorities toward a goal; an individual may simultaneously be rational as well as hasty.[53] Importantly, Horgan notes the lack of any identifiable psychopathology in people who engage in violent terrorism, and that they are "frighteningly normal and unremarkable in psychological terms."[54] AM's blog is consistent with this perspective and as such, readers should caution that the "lone wolf" narrative minimizes the age-appropriate developmental factors that influence individuals' behavior.

On the other hand, Hatemi and McDermott found that individual neurobiological factors may predispose some individuals to undertake high-risk, violent behavior. However, genetic predisposition is not incompatible with individuals' making rational choices and radical changes that fail to raise any warning indicators of psychopathology. As adolescents awaken to the embeddedness and systemic contribution that external political and social forces exert on individuals' behavior, their underdeveloped brain and lack of self-restraint may contribute to their acting impulsively. Thus biological predispositions to engaging in violent behavior can exist without any outward manifestation of psychopathology, as the behavior may be deemed age-appropriate (i.e., youthful rebellion). Further it is only the combination of a neurobiological predisposition to violence alongside absence of psychopathic behavior that is the quantity of interest for this research. Other potential combinations (psychopathy present, risk-taking behavior absent; psychopathy absent, risk-taking behavior absent) produce null responses as the individual does not express or act on impulses for high-risk behavior. Where psychopathy is present and high-risk behavior is present, caregiver adults (i.e., teachers, parents, community members) would have more opportunities to observe the psychopathy and intervene. In other words, children and young adults who "act out" or deviate from the norm of expected behavior may ideally be flagged for interventions or less optimally, render the community unsurprised if/when s/he engages in high-risk or violent activities.

As evidence for the influence of the sociopolitical forces as well as the contradictions inherent in adolescence that influence her radicalization, AM frequently quotes block text from religious sources. Rather than using her blog for introspection and processing these passages, reflecting on them in her own voice and writing, she appears to swallow them whole, undigested. By borrowing eloquent passages, she creates a compelling façade that masks an unsophisticated understanding of herself, religion, and geopolitical events. On the other hand, in some passages she displays a depth of perception beyond her years. In her blog, she struggles to reconcile her beliefs and her understanding of the world in a developmentally appropriate way for a person of her age. Throughout the blog she conveys age-appropriate sentiments, as the teenage years are filled with internal contradictions as individuals navigate risk and reward, and concrete and abstract thinking. However, she is unlike most young women in her choice of high-risk political activity. While many may contemplate such radical changes, few follow through.

The overall tone of her blog conveys both a sense of infatuation with high-risk political activity as well as unrefined ruminations on her own life and geopolitical events. Her language is infused with contemporary cultural references, amateur analyses of scripture, and re-blogged text. In general, her writing lacks analytical depth and is characterized by trite cultural references alongside statements made by others. For example, she juxtaposes

the trivial with the profound in one single passage, admonishing women about the sacrilege of plucking one's eyebrows, while lauding the famous Martin Niemoller quote about personal responsibility in times of crisis. She writes,

> Not doing my eyebrows is one of the strongest fitnahs for me. In this day and age plucking your eyebrows is the norm and many are not even aware of how big a sin it is. Allaah curses those who pluck their eyebrows. In'shaa'Allaah may He give us sabr and the strength to stay dedicated to the Deen outwardly and inwardly. Sisters I know this is very difficult, I am in the same position as you but just remind yourself; what is more important—pleasing the creation —OR pleasing the creator?[55]

This type of post reveals her inward conversion as well as a motivation and example for other young women to follow suit. In a similar post, she grapples with self-image during her transformation: "I will always blame the abaya for me looking fat. Its not me, its the abaya. Real talks."[56] AM's words indicate that she desperately tries to walk a straight and narrow religious path, but has trouble jettisoning her old life. For example, she admits that reading Harry Potter is sinful, so out of concern for her own piety she passes her books along to a younger sister.[57] Seemingly unaware of the irony, she frequently writes that women must watch out for temptations and separate themselves from the source.

While not *initially* explicitly propagandist, her language and themes are accessible to other Western young women, using abbreviations like LOL and cba.[58] She engages in common teenage behavior, including making prank phone calls. About this she writes, "Prank calling someone and then getting told you laugh like a squirrel, cut down on the Ice Age fam x Sarah laughs more like a hyena tho."[59] Whether her informality and levity is deliberate or not, interweaving mainstream teenage phenomena with more serious religious commentary gives her writing a less radical and more mainstream appeal and also provides evidence for her youthful immaturity. Posts such as these both establish rapport with her audience as well as serve a purpose for her: chronicling her transformation away from a secular life to a radical, extremist one. From this discussion I generate the following expectation about her language:

Expectation 4:   *References to both risks and rewards will increase during radicalization.*

Social forces and factors

A second tier of explanations for her radicalization focuses on social factors. Most research has focused on the impulsivity of young men, so this investigation into the political radicalization of young women could contribute positively to our understanding of the early signs and signals of high-risk behavior undertaken by girls and women. A sociological perspective provides a broader context beyond individual-level factors for the recruitment of women to join ISIS in Syria. Societal constraints can induce recruitment to radical political activity through the lack of legitimate educational and employment opportunities available to young women. Many first-generation Muslim young women living in Europe are socially, educationally, and economically disenfranchised, as they are caught between the cultures of their parents and Western cultures where they are raised. They are facing a personal crisis of identity that manifests in their professional lives through lack of career opportunities, discrimination, and alienation from the society.[60]

Faced with personal and professional challenges and a lack of legitimate mechanism to resolve the tensions inherent in their frustration, some young women become vulnerable to persuasive recruitment to high-risk political activities.[61]

Absent meaningful opportunities for education, employment, and social participation, women's alienation can make them vulnerable for participation in undesirable and illicit activities. This could range from engaging in work in informal economies, i.e. domestic work, where their efforts are likely underpaid, to working in the sex trade industry, where their lives and livelihood are put in danger. Some small subset of women alienated from society through lack of legitimate opportunities will find an outlet in high-risk political activity. They may see a move to Syria to marry an ISIS fighter as an opportunity for a stable, secure life where their needs are provided for. While this exact scenario does not appear to apply to AM, the general context of social exclusion can provide fertile ground for female recruitment to radical activities. In this scenario, she became consumed with religious indoctrination, unchecked by moderate forces from her family or society.

In this context, religion provides a meaningful and useful entrée into radicalization because it has a narrative of persuasion. Religious indoctrination provides a venue for young Muslim women to connect locally and internationally with other people, while providing validations for their frustrations, a sense of belonging, and an opportunity for personal advancement and leadership such as the path that AM followed. One of the distinguishing features of AM's blog is her proclivity for copying blocks of religious text, without engaging in critical thinking or discourse about the ideas or concepts therein.[62] Her discussion of religion varies in intensity and volume over the course of her blog; at some points she references lengthy quotes, while at other times she makes scant mention of religion and infrequently uses religious vernacular.

Through the discourse on her blog, however, it is clear that her sociopolitical transformation is nourished autodidactically through Islamic scholarship. This feature represents one of the biggest challenges to countering online radicalization, as the opportunities for pedagogical mediation and moderation often fail to materialize. In other words, self-radicalized individuals may fail to seek out, or even passively encounter, more moderate ideas or voices when the Internet is the medium. Further, the theory of cognitive dissonance plays a large role in filtering out information that might otherwise serve to interrupt the radicalization process. Thus exploration of extremist online religious sources leads to further encounters with this genre of religious information. Her online peer group likely further encourages the uptake of extremist religious ideology, reinforcing the radical messages she finds online as well as introducing new sources.

A second way society affects recruitment is through social ties and connections. In a larger sociological context, much work has been done on high-risk political activism in general as well as determinants of individual mobilization that inform this study. Similarly, other scholars have identified the patterns of cult recruitment, many of which parallel terror group recruitment strategies.[63] Included in this is the notion of strong and weak ties, whereby individuals are more likely to be persuaded to high-risk activity through strong ties, i.e., those that involve personal contact with known associates, colleagues, friends, and family.[64] Social connections inform the political opportunity structures in an individual's life. In other words, a person is more likely to participate

in a high-risk activity if someone they know provides them information and the opportunity to engage politically.

Some scholars have held that the Internet represents a weak tie, and that individuals should be less likely to participate in political mobilization based solely on online interactions. Specifically, Drezner and Gladwell provide evidence for the limited functionality of Internet–based communication, listing multiple recent political movements as in Moldova, where Drezner and Gladwell suggest that conventional wisdom mis-attributed the role of the Internet.[65] This perspective asserts that *slacktivism*, a recently coined portmanteau, is a lazy form of online political participation, and that the Internet has a low barrier to entry for learning about and participating in radical political activities. To be certain, there are varying degrees of online participation, from passively "liking" or "following" individuals, groups, and organizations, to actively participating in chat rooms or forums, to curating and maintaining one's own blog or online journal. The proponents of the Internet-as-weak-tie theory assert that successful recruitment to high-risk political activity happens most persuasively face-to-face through personal connections.

However, scholarship on computer-mediated communication (CMC) demonstrates the persuasiveness of online interactions, contrary to Drezner and Gladwell.[66] Skeptics of CMC may wonder how the Internet can be such a powerful venue that individuals are persuaded exclusively through online interactions to undertake such high-risk actions. In writing about the strength of weak ties, Granovetter notes that strong ties bind small, cohesive groups, and weak ties play a critical role in bridging the distance gap between groups.[67] As a long-distance connector, the Internet can facilitate trust building between individuals, leading to an increase in reciprocation and intimate disclosures. This creates an environment primed for predators looking to deceive and manipulate their targets, and an inviting environment for targets to seek validation and companionship. Pauwels and Schils advocate for a mixed online-real world approach to understanding radicalization, noting that, "Political violence can only partially be explained by social learning and suggests that the impact of ENSM (extremist new social media) is mediated by real-world associations and that the offline world has to be taken into account."[68] Thus, the individual, social, and geopolitical realities interact with the online communities that vulnerable young women enter into.

Expectation 5a: *References to religion will be prevalent during the onset of radicalization.*

Expectation 5b: *Internet-related language, i.e., "netspeak," will be prevalent after emigration.*

International relations

The larger geopolitical context also informs an individual's radicalization. The ongoing conflict in Syria, and to some extent, the larger issues of conflict and humanitarian crisis throughout the Middle East, serve as a backdrop for AM's political awareness and personal transformation to high-risk activism. Born in 1994, AM and others of her generation grew up in the "era of terror." Children of this generation were too young to fully comprehend the magnitude of the events of September 11, 2001 in the United States, yet the forthcoming policies and ensuing political wars helped to shape and define the

world they and we continue to live in. The subsequent wars in Afghanistan and Iraq embroiled the United States and its allies, including the United Kingdom. These wars facilitated regional instability, and conflict spread to Syria. Ongoing tensions between Palestinians and Israelis continue to deepen global ideological divides about interventions, solutions, and peace process attempts. AM references many political events in her blog, such as the French intervention in Mali,[69] the deaths of civilians in Syria,[70] as well as the marathon bombing in Boston,[71] and her politically oriented posts pertain mostly to events related to Islam and Muslims.

In 2010, when AM was in her mid-teens, a wave of democratization and uprisings transpired across North Africa and the Middle East. Beginning in Tunisia with the self-immolation of a street vendor, popular protests successfully ousted several repressive regimes in the region while solidifying the rule of many brutal others. The Arab Spring dominated the news for several years, as the contagion of democratic movements, and the perils and pitfalls of unsuccessful attempts, captured the global conscience. Foreign intervention in Libya toppled Gaddafi. Repression in Bahrain preserved the monarchy's rule. Democratic reforms have largely prevailed in Tunisia.[72] Waves of immigrants from conflict zones across the Middle East and North Africa have inundated Europe and brought issues of immigration and identity to the forefront of regional politics, with right-wing anti-immigrant politicians and political parties gaining strength in several countries.

Bashar al-Assad continues to rule in Syria, as the humanitarian situation worsens. A divided and ambivalent Security Council, as well as a reticent NATO, have paved the way for insurgents, mercenaries, and terrorist groups to infiltrate Syria and complicate efforts to alleviate suffering among civilians. A multitude of domestic resistance factions have been combating the Syrian government since 2011. Foreign fighters from Al Qaeda have taken up residence, and the new ultra-terror group, ISIS, also emerged. ISIS has been media savvy, using videos of their brutality to recruit new participants to their ranks and establish control over territory in Iraq and Syria. Male fighters from across the world have traveled to join ISIS, as have women to play support roles in the conflict. Connected to the outside world by the Internet, these "jihadi brides" are enticed largely through online connections by the excitement of marrying into the organization. While some hope to become fighters themselves, the reality they find once reaching Syria does not match their expectations. Others understand their role as "support staff," i.e., cooking and raising children. The Al Khanssaa Brigade's manifesto outlines the parameters for female participation in the Islamic State's activities.[73] From this discussion I generate the following expectation:

Expectation 6: *References to international events will increase during radicalization.*

Figure 1 summarizes the factors affecting the radicalization of young women and their vulnerability to recruitment to high-risk activities. The focus of this inquiry is on young Muslim women in Western societies; however, this model has wider applicability because the mechanisms of radicalization are largely grounded in universally applicable developmental processes. In this context, AM was a prime target for successful online radicalization: her family sent only weak political and religious cues; she was at a developmentally vulnerable age; and in the aftermath of a disappointing life circumstance, she found

Figure 1. Factors affecting radicalization.

unchecked solace online as she became increasingly isolated from her friends and family. Her privilege afforded her access to social media, and her education provided the language and technical skills to communicate, process, and publicly chronicle her political transformation. Family, friends, education, and work all represent strong ties in theory. However, in AM's case, they were weak in the face of the omnipresent, ubiquitous Internet. While the Internet itself does not necessarily represent a strong tie in absolute terms, it only need be the strongest tie in a vulnerable individual's life.

The language of radicalization

Using computational linguistics tools as well as content analysis, I provide a profile of radicalization that substantiates many of the existing claims about recruitment to high-risk political activity. As AM settles into her role as ISIS recruiter, her language reflects her change in persuasion to connect with the young women she targets. I am most interested in her unique blog posts rather than those that are reblogged from other sources.

Broadly speaking, discourse analysis provides insights into patterns in language, specifically semantics. Semantics assumes that context matters and relies on both the grammatical structure of the language as well as lexical selection. This approach prioritizes the speaker's intent, including background information that helps to provide meaning. For example, AM came from an affluent, successful, and politically and religiously moderate family who afforded her many opportunities. Her knowledge and education, as well as her position as an immigrant and as a young woman, informs her perspective and the way she was able to communicate her process of radicalization. It shapes her word choice, her referents, and her cognitive processing.

Data collection

I processed the text files from her blog posts using Text Cleaner. Tumblr makes available an API, or application programmer interface, which lets third-party applications make automated queries to the Tumblr database for information about followers, blog posts, pictures, and in general anything publicly visible on the Tumblr website.[74]

Computational analysis

I use three computational linguistics programs to evaluate AM's language: Linguistic Inquiry Word Count (LIWC), Coh-Metrix, and the Stanford NLP Topic Modeling (Latent Dirichlet Allocation, or LDA) software.[75] Our primary word count tool is LIWC,[76] which generates a proportional value for pre-determined categories based on the content of the text itself. These categories include linguistic dimensions, psychological processes, and grammar.

Description of data and methods

In the following sections, I will provide several examples of how AM uses language during the course of her radicalization. I do this first by describing the range of topics that emerge during her several years of blog post entries. Next, through content analysis, I provide excerpts of her language at various critical junctures that represent decision points within the theoretical framework I earlier outlined. I also include evidence from the computational analysis for how her language changes over time. I provide graphs of linguistic variables using lowess, or locally weighted scatterplot smoothing.[77] This method is a regression of time variables on selected linguistics variables and it weights the central point more heavily than distant points, an ideal because the smoother function follows the data. Finally, I conclude with a discussion of implications of this work for understanding the relevant factors for women's transnational radicalization. By using both qualitative and quantitative analyses of AM's language, I am able to provide specific examples that highlight the theoretical constructs as well as demonstrate the pattern and trends that can lead toward broader generalizations of radicalization processes.

Topics and patterns

I use Latent Dirichlet Allocation (LDA) as a means to uncover general themes within the blog posts. LDA, or topic models, provide sets of terms that represent categories of topics contained within large bodies of text.[78] Table 1 provides a list of the most commonly used words in AM's blog. These are the "stop words" which are removed from the overall topic model analysis; they occur so frequently that keeping them can dilute the more distinct topics. Stop words include both complete terms as well as word stems, i.e., lemmatized word segments that are conceptually related.[79] They are, however, interesting in their own right as they provide insight into the most prevalent concepts in the blog. Some of the stop words include frequently occurring function words like the, and, what, and your, while others are content words, like Allah, believe, messeng-, and religion. In essence, because

Table 1. Most commonly used words in Aqsa Mahmood's blog.

about	everi-	mai-	religion	Think
abu	*follow*	*make*	sai-	Those
all	for	**man**	said	Time
allaah	from	mani-	see	Upon
allah	give	**messeng-**	she	*Want*
and	**good**	more	*should*	Were
ani-	had	most	**sister**	What
ask	have	**muslim**	some	When
becaus-	**heart**	*need*	such	where
becom-	her	never	take	which
believ	him	**night**	than	who
bin	how	not	that	why
brother	ibn	**onli-**	the	will
but	**islam**	other	thei-	with
call	**jihad**	our	their	without
can	just	out	them	**world**
come	know	**peopl-**	then	would
dai-	**knowledge-**	**person**	there	you
did	let	prai-	these	your
enemi-	life	prophet	thi-	

these words are used so frequently as to lose meaning, by eliminating them from the analysis I can generate more robust topic categories.

The content words specified in Table 1 indicate the general subject matter that AM covers in her blog: religion (Allah, Muslim, jihad), people (brother, man, sister), abstract concepts (believe, think, good), and concrete concepts (night, world). She also uses active and auxiliary verbs like becom-, follow, and should, each of which indicates a unique part of her radicalization. The stem becom- itself is an evocative verb in the context of her transformation. Follow has two possible significant interpretations: religious importance, i.e., following strict religious doctrine; Internet-related, i.e., following other bloggers online or gaining followers to AM's blog.

Given the relatively small-n nature of the data (n = 326), I generated only fifteen topics. These represent recurring themes throughout AM's blog entries. Table 2 provides a list of the topics, as well as the top twenty highest probability words occurring in that category.

Topics 1, 2, and 5 follow similar patterns. Topic 1 deals with roles within Islam, including people, imam, woman, mujahideen, men, father, and prophet. Topic 2 deals roughly with the observation of Ramadan, and Topic 5 is about Islamic scholarship. These topics are prevalent in the early months of the blog, declining precipitously just before her emigration, and then rising steadily during her time in Syria. Topics 3 and 8 follow similar patterns. Topic 3 is about Islam very generally, and is most prevalent in her blog posts just prior to her emigration. Topic 8 is about hijrah.

Topic 4, jihad, peaks early in her radicalization, and declines throughout the rest of her posts. Topic 6 references words related to mothers, and peaks just after her emigration to Syria. Topics 7 and 9 follow erratic patterns, fluctuating greatly during the process of radicalization. These topics are about the benefits of Islam, and homemaking, respectively. Topic 10 is related to the Internet, and increases in frequency after she makes the decision to emigrate. These ten topics are plotted over time in Figure 2.

The array of topics derived from her blog posts provides confirmation of some expectations. For example, she does reference religion more during the onset of her radicalization. Her usage of Internet-related words exhibits a non-linear relationship,

Table 2. Topics in Aqsa Mahmood's Tumblr blog.

Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6	Topic 7	Topic 8	Topic 9	Topic 10
"Roles in Islam"	"Ramadan"	"Islam"	"Jihad"	"Scholarship"	"Mother"	"Benefits of Islam"	"Hijrah"	"Home-making"	"Internet"
people	day	allah	allah	allaah	mother	people	allah	allah	smellthedeen
imam	man	muslims	jihad	ibn	things	allah	sisters	love	twitter
woman	night	people	bin	knowledge	good	muslims	hijrah	life	abu
mujahideen	people	life	messenger	mercy	love	knowledge	time	don	sin
world	abu	religion	path	shaykh	person	brothers	brothers	children	prophet
today	ibn	state	wealth	sunnah	heart	scholars	making	time	shia
alayhi	pray	fear	person	death	allaah	sheikh	find	husband	umm
religion	allaah	muslim	fighting	leave	feel	prison	dont	people	ali
muslim	umar	islam	narrated	asked	left	quran	women	person	friend
men	qur	war	enemy	children	don	time	back	made	hate
father	reported	sake	fight	authority	bring	evil	heart	didn	alaihi
prophet	replied	land	man	heart	light	book	wallahi	make	tumblr
hadith	lord	earth	mujahid	muhammad	remember	truth	make	dunya	salaam
sallam	ramadan	lands	muslim	women	forget	great	give	home	dont
wasallam	soul	islamic	killed	ummah	time	group	part	years	heard
love	prayer	prophet	good	truth	thing	call	life	death	watch
enemy	give	support	day	imaam	face	ibn	sincere	put	follow
companions	fast	ummah	peace	righteous	stop	benefit	people	give	man
nation	days	peace	prophet	entered	jannah	ahmad	family	patience	army
palestine	water	blood	islam	silent	tears	blessings	bring	sister	back

Figure 2. Topic patterns in Ms. Mahmood's Tumblr blog.

taking an inverted-U form that increases precipitously around the time of her emigration, declining roughly a year later. This pattern suggests that she is using more unique language during this time rather than quoting block text from religious sources. This type of informal language may be used in communication with her peers as this time frame corresponds to her active outreach to other young women expressing interest in making hijrah. While international events do not appear as a consolidated topic in this model, a close reading of her words shows that she does reference political events during the course of her radicalization.

Content analysis

I identify several critical decision points that highlight phases of her radicalization that correspond to the categories of privilege, youth, gender, recruiter, and power (Table 3). Early in her blog, she becomes more outwardly pious, remarking on wearing the hijab.[80] She also alludes to a disappointment in her life that changed the course of her life and priorities.[81] Shortly thereafter, she purchases her first *abaya*.[82] Three months into her blog, she first references the desire to make *hijrah*, and shortly thereafter laments the difficulty of her family questioning her decisions to become more religious.[83] Two days apart in April 2013, she mentions more specifically that she wants to make *hijrah* after university, and that she needs to find a job.[84] We can possibly interpret the proximity of these posts as her intent to earn money to finance her emigration process. In the months before she emigrates, she provides frank discussions about her aspirations and acceptance of the practice of polygamy.[85] She also

Table 3. Significant decision points toward radicalization.

Date	Excerpt	Significance
1/22/13	We who wear the Hijab need to become more accepting of our fellow sisters who do not…	Initial blog post
1/27/13	Even though last year was my most depressed year ever I'm so happy everything that happened to me, happened. Because if it didn't, I wouldn't have realized how amazing my life is with Allah in it.	Justification for onset of radicalization
2/27/13	I just bought my first abaya	Purchased first abaya
3/12/13	I just want to make hijrah ok. cbb with Dar al-Kufr anymore.	Initial mention of intent to emigrate
3/16/13	Nothing is more hurtful than your family questioning you why you're wearing the abaya or why you've started growing the beard.	Tensions with family
4/9/13	I need to find a job.	Intent to find a job
4/11/13	InshaaAllaah making hijrah after university.	Declaration of emigration timeline
7/31/13	The way my sisters without mahram made hijrah was that an initial group of sisters with their mahrams made hijrah and got settled and when they were ready they invited the sisters without mahram who travelled together and were met by the original muhajireen.	Admiration of others for hijrah
8/30/13	I have absolutely nothing against polygamy, ma shaa Allaah its such a blessed and beautiful concept in Islaam.	Acceptance of strict religious doctrine
10/26/13	Im getting so so Halal jealous hearing of all those whove recently made Hijrah to Bilaad ash Shaam Feesabeelilah:)	Further admiration of others for hijrah
11/14/13	Hijrah has a comprehensive meaning as understood in Islam. It is not simply just the act of moving from one place to another; from a non-Muslim country to a Muslim country. Ibn al-Qayyim explains that it is, in fact, an emigration of the body and the spirit.	Analytical and contemplative blog post about hijrah; final post before emigrating
12/05/2013	The war broke out … if you [Muslim men] are not going to be chivalrous knights in this war (fursan al-harb), make way for women to wage it… Yes, by God, men have lost their manhood.	First post after emigrating; strong feminist overtones
03/12/2014	…And I am in no way demeaning those who havent yet embarked upon this journey and most importantly I am not at all deterring sisters from choosing this path—I just want to paint a realistic picture of what is in store for the sisters here.	Next subsequent post (three months later); realistic advice for new recruits
06/03/2014	…If you need to contact me then follow me on Twitter (@_UmmLayth) or Kik me (_axa)….	Soliciting other young women

notes her jealousy of other women who have already emigrated.[86] Her last post before emigrating is particularly contemplative, reflecting on the spiritual aspect of *hijrah*.[87]

Privilege

Figure 3 shows the inverse relationship between language related to self and other. At the critical juncture around November 2013 when she emigrates, these two linguistic concepts diverge. Specifically, references to self decrease, and references to others increase. These trends are theoretically aligned with group identification mechanisms.[88]

Youth

AM exhibits the aforementioned age-appropriate developmental inconsistencies and naiveté associated with adolescence while undertaking more rigorous study of the Islamic faith. It is not unusual for teenage girls to withdraw from their parents as they exert their independence; however, it is possible that AM's unfettered and solitary access
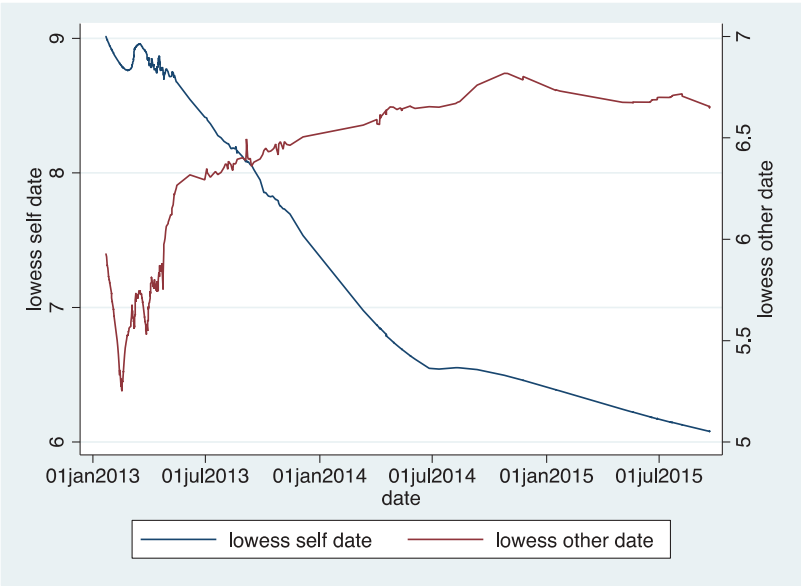
Figure 3. Privilege: Self and other lowess (LIWC 2015).

to the Internet hastened her radicalization. Figure 4 shows the divergence of her language related to risks and rewards following her emigration, where she becomes initially more risk acceptant as indicated by the uptick in risk-related language and decrease in reward-related language. Subsequently, however, her propensity for embracing risk declines, and she begins to reference language associated with rewards more frequently.
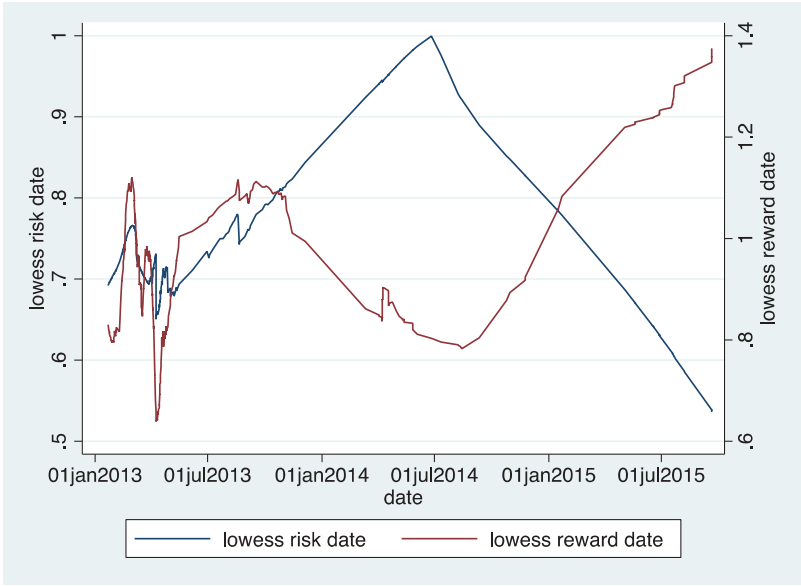

Figure 4. Youth: Risk and reward lowess (LIWC 2015).

Gender

Consistent with expectations reflecting her identity as a woman initially in Scotland and subsequently in Syria, there is an inverse relationship between references to home and work in the blog. AM's work-related language decreases and her home-related language increases after she emigrates (see Figure 5).

Power

Finally, the trends of power-related language vary during AM's radicalization (see Figure 6 and Figure 7). After an initial spike early in her radicalization, the power language appears to level during the months prior to her radicalization. Her power language experiences a decline around the time she emigrates, but picks up precipitously as she begins to adopt her new identity as a central figure in recruiting other young women.

Another power indicator emerges through her use of positive and negative emotion. Affective language can reflect mental and emotional states; AM's patterns follow complementary, but opposite patterns, with positive emotion language declining and negative emotion language increasing during her first year of blogging. In October 2014, the pattern reverses, with an uptick in positive language and downturn in negative language. This critical juncture occurs during the time when she has made the decision to emigrate and is finalizing the details of her departure.

International events

References to international events follow a nonlinear pattern (see Figure 8). Her language demonstrates an initial spike in references to external events, such as the Boston Marathon
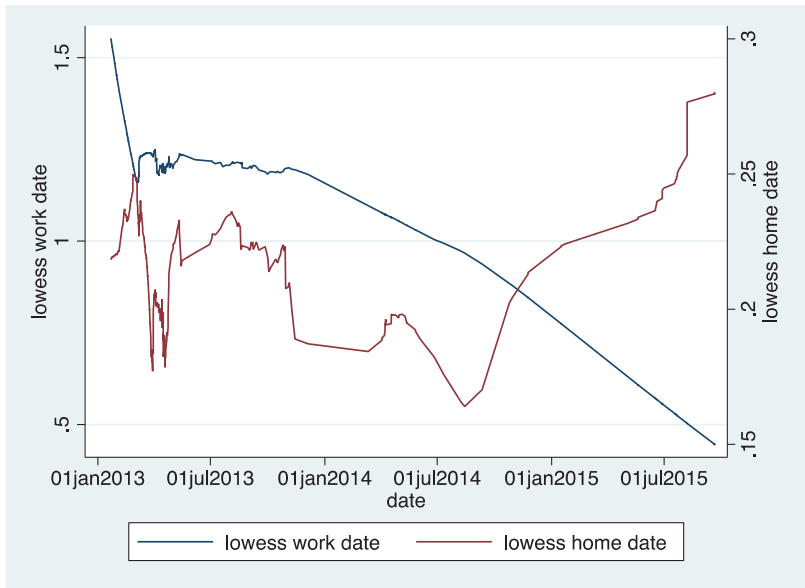

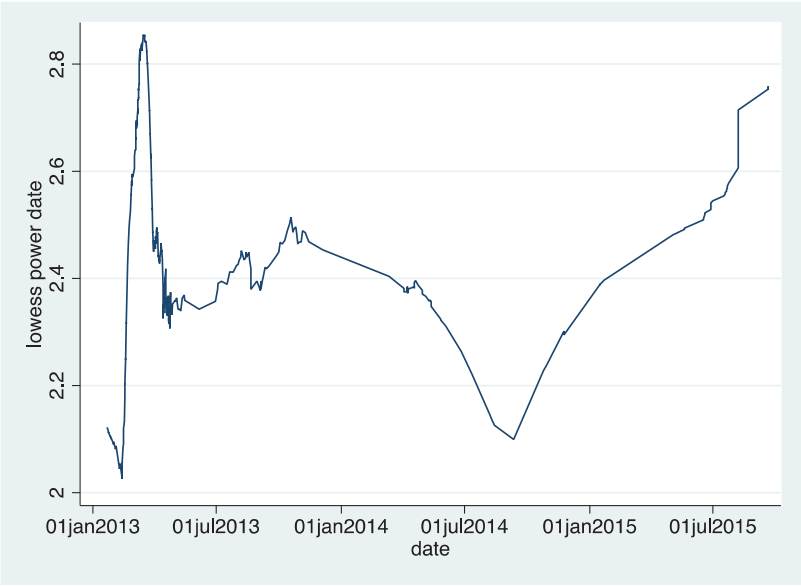**Figure 5.** Gender: Work and home lowess (LIWC 2015).

Figure 6. Power: Power lowess (LIWC 2015).

bombings and political problems in Iraq. However, her interest in international phenomena drops for several months before drawing her attention again around the time of her emigration. This pattern may be explained by the theoretical constructs outlined by Hoffer of "losing oneself" in the fervor of the times, as her interest is initially piqued by injustices in foreign destinations. As she explores her relationship to ISIS and becomes more
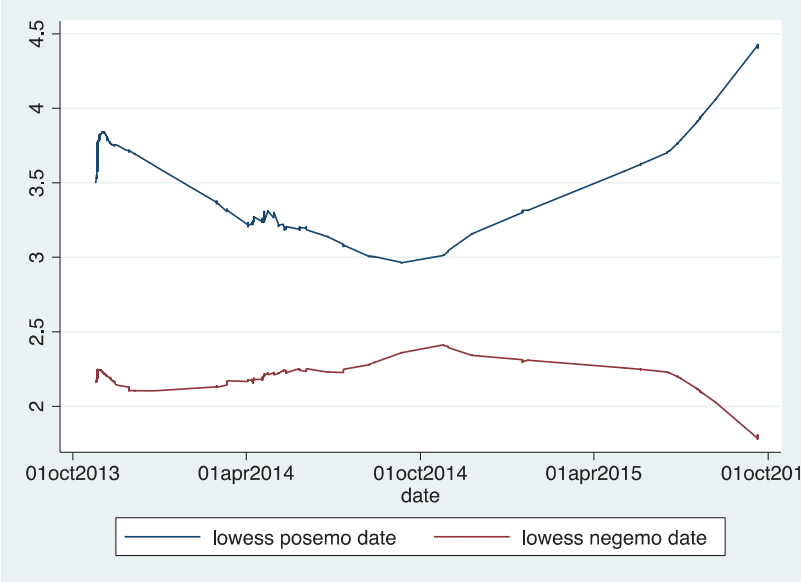

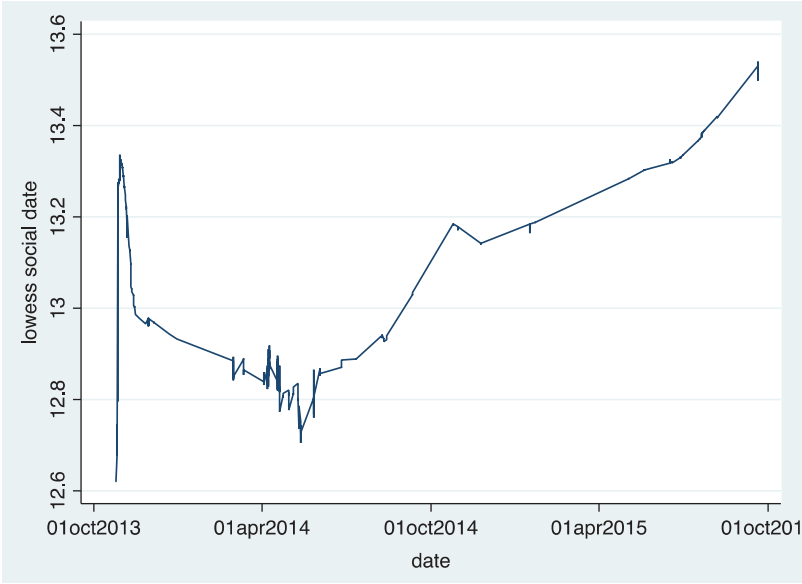**Figure 7.** Power: Positive and negative emotion (LIWC 2015).

Figure 8. International relations: Social lowess (LIWC 2015).

Table 4. Summary of hypotheses and outcomes.

Hypothesis	Outcome
Individual-level features	
1a. Self-references decrease	Supported
1b. Other-references increase	Supported
Power and personal agency	
2a. Positive emotion increases after emigration	Supported
2b. Negative language decreases after emigration	Supported
2c. Power language increases after emigration	Moderate support
Gender and expectations	
3a. Work references decrease	Moderate support
3b. Home references increase	Moderate support
Youth and biological development	
4. Risk/reward references increase	Inconclusive
Social forces	
5a. Religious references at onset	Supported
5b. Internet references after emigration	Supported
International relations	
6. International events references increase	Inconclusive

intimately committed, her attention turns inward. As she prepares for emigration, her language reflects a broader, international focus.

To recap the expectations and results from this inquiry, Table 4 provides a summary of the hypotheses and outcomes.

Conclusions

In this paper I have presented a comprehensive analysis of the unique language generated by one woman who radicalized online, emigrated to an active conflict zone, and became a

leader in recruiting other young women to follow suit. This analysis likely provides more unsettling than comforting insight about the process of radicalization. Common interpretations of radicalization focus on the individual as exceptional, with psychological problems, and branded as the "terrorist other." However, while AM's decision to emigrate is unusual and extreme, she was in many regards essentially a normal teenager. Many readers may find it disconcerting that political radicalization could transpire within age-appropriate parameters, masked behind normal developmental processes. Contextualized within the ecological model, phenomena including familial, social, and global environments, we may find more satisfying interpretations of what factors incentivize an individual's process of radicalization.

The gendered implications of this study merit further exploration as well, as scholarship predominantly focuses on the male experience of radicalization. Whereas policy practitioners have noted the roots of male radicalization in humiliation and shame, female radicalization seems to flourish in isolation, when young women experience disconnection from their family and social groups. This is especially pronounced in AM's case, as her parents were self-reported moderate Muslims and AM was raised in a relatively secular, apolitical home environment. Absent strong religious or political signals, AM was susceptible to strong messages from her peers that influenced her behavior.

The case of the Syrian Civil War demonstrates how the role of women is evolving in complex conflict scenarios. Transnational terrorism has long been the domain of male actors, as men have had the mobility and capacity to travel and participate in perpetrating acts of violence. As an organization, ISIS has long prohibited women from active combat, although this may change.[89] The transnational recruitment of young women to ISIS is a stark reminder that their influence extends into the most remote, safe, and unlikely of environments, and exploits the natural developmental process associated with the teenage years. One parallel research area that may inform future discussions of transnational participation in violent political activities is the work on transnational sex trafficking of women. In many cases, women who are trafficked are prosecuted as sex workers rather than rescued and rehabilitated as victims of kidnap and abuse. This is an area of exploration that may serve as a parallel for young women lured into violent organizations.

To summarize the linguistic analysis, I find several revealing trends in her language. Through her language of "self" and "other," she appears to shed her former identity and lose herself in the process of radicalizing. She changes her tone, and presumably her attitudes, about work and family, and she finds her voice as a powerful recruiter for other young women. She first becomes risk acceptant, and then risk avoidant. While previous research has shown the difficulties in identifying "lone wolves" or individual extremists with radical or violent agendas, we can learn much from the paper trail that AM left through her blog. Chief among the lessons to be learned is that parental (or caregiver) influence is critical during the radicalization phase. Her repeated posts that test her parents' intervention comfort levels indicate she is seeking their approval and their guidance. The teenage years, especially the late teenage years, are a hybrid of autonomy and supervision. It is clear that caregivers have a large role to play in intervening in the radicalization process, and this discussion should be continued in more policy-specific forums.

Finally, in this work I focus on the words that AM wrote herself, rather than those that she copied and reblogged from other sources, because I was most interested in how her

unique language reveals her radicalization process. In future analyses of her writings I intend to examine the religious sources she references to gain a better understanding of the kind of information that influenced her political development. Youth radicalization, specifically among young women, is an open chapter, as they are emboldened to take their beliefs and actions across borders.

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Funding

Notes

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Appendix

Table 5. Dictionary of terms referenced in Aqsa Mahmood's blog.

Term	Definition
abaya	cloak/a simple loose over-garment/robe-like dress worn by some Muslim women
Alhumdulilaah	Arabic word for "praise"
Allah	Arabic word referring to God in Abrahamic religions
Ameen	a word used in Judaism, Christianity, and Islam to express agreement with God's truth
Aql	Arabic word for "intellect"
Assalamualakum	Islamic phrase meaning "may peace be upon you"
azza wajal	refers to Allah meaning "mighty and the majestic"
beithnillah	Arabic phrase meaning "with permission of Allah"
Bilaad ash Shaam Feesabeelilah	Syria; means "land to the north"; or literally "land on the left-hand"
Bismillah	Arabic for "in the name of God"
Calipha	a person considered a religious successor to the Islamic prophet Muhammad
cba	can't be arsed
cbb	can't be bothered
Dar al-Kufr	any non-Muslim domain (abode of unbelief)
Deen	Arabic and Qur'anic term meaning "religion"
Doula	a woman who is trained to assist another woman during childbirth and who may provide support to the family after the baby is born
Dunyah	Arabic word meaning "the temporal world and its earthly concerns and possessions"/closest or lowest
Farhat Hashmi	Islamic scholar from Pakistan
fitnahs	temptation, trial; sedition, civil strife
FSA	The Free Syrian Army
Halal	denoting or relating to meat prepared as prescribed by Muslim law
Hijab	a head covering worn in public by some Muslim women/the religious code that governs the wearing of the hijab
hijrah	the migration or journey of the prophet Muhammad and his followers from Mecca to Yathrib (Medina)/jihad by emigration
Ibn al-Qayyim	Arab Islamic jurist, commentator on the Qur'an, and theologian
Ikhlas	Arabic word for "fidelity" or "sincerity"
Inshaa Allaah	refers to Allah meaning "Glorious and Exalted"
Islamic State	a militant group that follows a fundamentalist doctrine of Sunni Islam/also referred to as: Caliphate, ISIL, ISIS, IS, and Daesh
Jannah	the Islamic conception of paradise
Jazakillah Khair Wa Alaykum As-salam Wa Rahmatullahi wa Barakatuhu	Muslim greeting meaning "and peace and mercy and blessings of Allah be upon you"
Jihad	a war or struggle against unbelievers/the spiritual struggle within oneself against sin
jinn	supernatural creatures in Islamic mythology and theology
Karbala	city in Iraq
Khadijah	a popular female Muslim name
khalifa	a name or title which means "successor" or "steward"/commonly refers to the leader of a Caliphate
khawarij	Rebels
La Ilah Illah Allah Muhammad Rasool Allah	Islamic creed declaring belief in the oneness of God and the acceptance of Muhammah as God's prophet
LOL	laugh out loud
Lut	prophet to the cities Sodom and Gomorrah
ma shaa Allaah	Arabic phrase that expresses appreciation, joy, praise, or thankfulness for an event or person that was just mentioned
mahram	Islamic sharia legal term for unmarriageable kin with whom sexual intercourse would be considered incestuous, a punishable taboo
Makar	headquarters/base
Muhajirah	Muslim immigrants
Muhajirat	Muslim immigrants
muhajireen	people who have immigrated
munafiqeeen	An Arabic term used to describe a religious hypocrite

(Continued)

Table 5. (Continued).

Term	Definition
Qitaal	Arabic word for "fighting"
Raqqah	City in Syria
Riyaah	Arabic word for "winning"
Rumi	Persian poet
sabr	Islamic virtue of patience or endurance
Salahuddin Ayyubi	Muslim leader from the 12 century. Helped reclaim Jerusalem during the Crusades.
Shaam	Indian actor and model
Shaykh	an Arab leader/a leader in a Muslim community or organization
Sheikh Feizs	Australian Muslim preacher of Lebanese descent
Shia	a branch of Islam which holds that the prophet Muhammad designated Ali ibn Abi Talib as his successor (Caliph)
Subhan'Allaah	an Arabic phrase meaning "Glory be to God"
tarbiyaah	refers to the systematic development and training of pupils in the light of Islamic teachings
Tawakul	Arabic for "trusting in God's plan"
Tawheed	indivisible oneness concept of monotheism
Ummah	the whole community of Muslims bound together by ties of religion
Wahllai	Arabic expression meaning "I promise by God"
waslam Wa alaykum Assalam wa rahmatullahi wa barakatuhu	an Arabic greeting often used by Muslims and Arabs translated to "and unto you peace"
ya umee	Arabic for "oh mother"