

Profanity on Jordan's Twitter

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Abstract: *This study discusses how profanity is used online and whether it records any gender-related differences. It explores how often and why certain swear words are used on Jordan's Twitter. The data are harvested by a computer specialist and consist of 5,000 English tweets—2,500 by females and 2,500 by males. The tweets were posted from Jordan within the period 2015-2020 and were randomly selected from 500 different accounts. The study concluded that the most common swear words on Jordan's Twitter were fuck, shit, damn and hell, and that there is statistical evidence that women swear more than men, contrary to several previous studies. Women also tend to use a greater variety of swear words, often mitigating their effect through abbreviated forms. The study also attributed the high frequency of the swear words found in the data to their syntactic flexibility, mother-tongue interference, and the fact that most of these words are closed monosyllables.*

Keywords: bodily functions, gender, profanity, religion, swear words, Twitter

1. Introduction

1.1 What is profanity?

Profanity can be simply defined as showing disrespect to sacred things or concepts. According to the *Oxford English Dictionary* (2007), the most common sense of the word *profane* is being “characterized by, exhibiting, or expressive of a disregard or contempt for sacred things (esp., in later use, by the taking of God's name in vain).” This definition is based on the root meaning of the word *profane*, which is strongly connected to religion. The Latin word *profanus* means unholy or unconsecrated. The prefix *pro* denotes before, whereas the root *fano* signifies temple, and thus the word *profano* indicates “not admitted to the temple” (*Heritage Online Dictionary* 2020). This etymology clearly illustrates that *profanity* was first used to refer to profanity against God and/or religion. Later, the word *profanity* took on further meanings, as marked by dictionaries and native speakers' usage. All the meanings of *profanity*, however, revolve around the concept of attacking, or being offensive towards that which is sacred or held sacred. This sacred thing might be religion, mother, country, race, color, education, or intelligence. These, in turn, are determined by one's culture, religion, political views and/or personal convictions. What is held sacred by one culture or nation might be the butt of a joke for another.

Another semantic component of *profanity* highlighted by the *Oxford English Dictionary's* definition above is disregard or contempt. *Profanity* can be simply defined as a show of disrespect towards what is respected. The verb form of *profanity* is *profane*. To *profane* (v), according to *Merriam-Webster* (2020), is “to

treat (something sacred) with abuse, irreverence, or contempt.” In its “Kids Definition” section, Merriam-Webster narrows the definition of *profane* down to, “showing disrespect for God or holy things.”

What does a show of disrespect exactly mean? Being disrespectful is, to a great extent, defined by one's cultural background. The mother is held sacred by most societies of the world, and so are the fathers, though to a lesser degree. In Jordan, the word *father* is commonly used in such expletives as *yil^can ?abu:k*, which translates to *damn your father*. In English, however, the word *father* is rarely used as a swear word. According to Berger (1973: 285), the word *father* is not sacred enough to become the target of profanity in English: “If a swear word is to be meaningful,” he explains, “it must attack something valued, held to be important.” That a single word can be offensive in some countries and inoffensive in others underscores the fact that profanity is largely defined by social norms and cultural values. Just as different cultures do not agree on what is regarded respectful and what is not, there is equally no universal consensus about what falls under the umbrella of profanity. What Jordanians consider profane might sound merely inappropriate to Americans. In the words of Allan and Burrige (2006: 9): “There is no such thing as absolute taboo. Nothing is taboo for all people, under all circumstances for all time.”

Whereas this study focuses on profanity rather than taboos, discussing the distinction between these two terms will help shed light on the semantic components of profanity. *Profanity* is used interchangeably with cursing, obscene language, swearing and expletives. Taboos, on the other hand, are those set of things, beliefs or words which exist in every culture and are prohibited to say or do. As Fairman (2009: 27) explains: “In every culture, there are both taboo acts (things that you're not supposed to do) and taboo words (things that you're not supposed to say).” Thus, taboos are not restricted to bad language, but rather include such things as death, disease, and a host of words and expressions which are often euphemized to avoid embarrassment, save face, be polite or simply avoid conflict. Profanity, by contrast, is a taboo which defies euphemism by its very nature. Put briefly, every profanity is a taboo, but not vice versa.

Qanbar (2011: 88) notes that for a taboo to cause embarrassment and be offensive, it must be mentioned in public: “A linguistic taboo is any word or a phrase or a topic that if mentioned in public causes embarrassment and feeling of shame or provokes a sense of shock, and it is offending to the hearer's sensibilities or his belief.” Taboos are thus determined by social, religious, and cultural values. The same friend who uses taboos in daily life may not be equally explicit on Twitter. Because Twitter is a public microblog, people are discouraged from using words which they use comfortably within smaller social circles.

There are three additional profanity-related terms to discuss: *swearing*, *cursing* and *obscenity*. The distinction in meaning between profanity, on the one hand, and swearing and cursing, on the other, is very well outlined by *Merriam Webster's Dictionary of Synonyms* (1984: 103):

Profanity has a wider range and includes all irreverent reference to holy things; it is particularly applied to speech in which the names of God, Jesus, and the Virgin Mary are used lightly and irreverently, especially in expressing rage or passion in oaths, curses, and imprecations... **Swearing** and **cursing** are forms of profanity, the former stressing indulgence in profane and often meaningless oaths; the latter, indulgence in profane curses or imprecations (as by calling on God to damn or punish the object of one's wrath or hatred.)

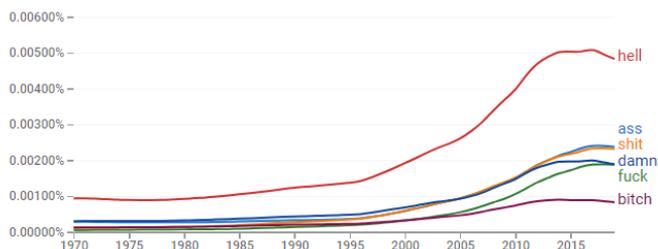
According to this definition, *swearing* and *cursing* are hyponyms to *profanity*; they both indicate a show of disrespect to holy things. *Obscenity*, on the other hand, has a sexual connotation. The word *obscene* is defined by the *Oxford English Dictionary* (2007) as an “offensively or grossly indecent, lewd; (Law) (of a publication) tending to deprave and corrupt those who are likely to read, see, or hear the contents.” Henderson (1991: 2) notes that *obscenity* is “a verbal reference to areas of human activity or parts of the human body that are protected by certain taboos . . . These are in fact the sexual and excremental areas. In order to be obscene, such a reference must be made by an explicit expression.” This means that there is a correlation between taboo and obscenity. When something is perceived as obscene by a given society, it develops into a taboo or becomes protected by taboos. Taboos, in turn, are often euphemized to avoid explicitness, save face and avoid embarrassment.

To sum up, profanity can be defined as a type of tabooed language or activity that offends people because it attacks that which is private, important, sacred, or valuable to them. Profanity should also be considered relative and culturally dependent. Although the words *taboo*, *profanity*, *obscenity*, *swearing*, and *cursing* have different connotations and subtle shades of meaning, they are often used interchangeably. *Taboo* is the most general word, followed by *profanity*. We chose the word *profanity* here because its semantic range excludes tabooed topics such as death and disease, both of which fall beyond the scope of this study.

1.2 Ubiquity of profanity

Since the 1970s, there has been a rise in the ubiquity of swear words, particularly in sex and religion-related words, as proven by Google’s *Google Ngram Viewer* tool which tracks usage of words over time.

Graph 1: Ubiquity of swear words in the last fifty years



(Generated from: <https://books.google.com/ngrams>)

This tool graphically depicts annual frequency rates of n-grams (*aka.* shingles, i.e., words), based on a corpus of more than seven million books printed during the period 1500- 2019. A search of the words *fuck*, *damn*, and *hell* between the years 1970 and 2019 in the *Google Ngram Viewer* generated the above graph, depicting a sharp rise in profanity within written texts over the last 45 years. Written material is generally more formal and more well thought-out than oral discourse. The extemporaneous conditions which trigger swearing do not typically happen in writing, and thus one would expect to find less swear words in written works. While swearing in the early seventies appears to be insignificant, with the word *hell*, for example, recording only 0.001% of mentions, it rose to 0.005% in 2015, which translates to a 400% increase rate. One may question the validity of this conclusion by saying that the word *hell* might have been used as a counterpart for the word *heavens* or *paradise* and, as such, it is not considered a swear word. The word *bitch*, too, can be used to refer to a female dog and can be found with a high rate of frequency in canine literature. Indeed, a more accurate test would be realized by collecting data on profane *expressions*, e.g., *what the hell* and *son of a bitch*, rather than single ambiguous words.

Google now allows its users to browse more than 200 billion words of data, together with one million books and fiction datasets (Google, July 2020). Google's American English corpus alone contains 155 billion words. Using this tool, the frequency of expressions *what the hell* and *son of the bitch* between the years of 1970 and 2000 generated the following results:

Table 1. Frequency and percentages of *what the hell* and *son of a bitch*

	1970	2000	Increase %
what the hell	33,303	145,144	335.8%
son of a bitch	13,502	47,030	248.32%
Total	48,775	194,174	

(Generated from: Google's Online American English Corpus, July 2020)

There is a 335% increase in the rate of frequency of *what the hell*, and a 248.32% increase in *son of the bitch*. These rates are still on the increase, and the curve will most likely continue to rise.

1.3 The current study

This study is both quantitative and qualitative. Quantitatively, the study attempts to determine the frequency rates, types, and distribution patterns of swear words on Jordan's Twitter. Qualitatively, the study aims at giving an account of why and how such swear words were used. The study also seeks to determine whether there are gender differences in the usage of swear words: who of the two genders uses which

swear words, who swears more, and whether there are significant differences therein.

This paper differs from earlier studies in a few points. Studies on profanity are generally limited in number and scope. As Jay (2000: 10) notes, psychologists and linguists have advanced theories of language which ruled out profanity, not because of lack of awareness, but rather because of the topic's nature. The topic of taboo, Jay (Ibid.) explains, is itself "so taboo that it has not been regarded as a legitimate topic for scholarly examination." Thus, the ultimate contribution of this study is that it treats an issue that researchers have generally shied away from. In fact, this is the first study—to the best of the researchers' knowledge—which tackles profanity on Jordan's Twitter. Twitter is a relatively young microblog, born only in 2006, and thus Twitter-based studies remain few in comparison to those of Facebook and Myspace.

This study also investigates the impact of gender on the usage of profanity in a public written medium. This adds to its value since, according to Ott (2016: 12), previous language and gender studies focused on the *who* and *how* of oral communication, "looking closely at spoken conversations in small groups, and less on what was said, public talk, or written texts." The attempt herein is to break new grounds in the field of gendered language through examining how the two genders express profanity in written texts posted on a public, online portal. As a matter of fact, one important contribution of this study lies in its inspection of the role of gender in shaping and influencing the usage of language. The question whether men and women use language differently has triggered serious research attempts since Lakoff (1973, 1975) and earlier. This study aims to confirm or contradict the findings with more recent data.

Furthermore, this study offers an analytical account of the reasons behind the ubiquity of swear words on twitter. While many earlier studies focused on the emotional triggers of profanity such as anger and frustration, this study highlighted further reasons for profanity, from the fields of syntax, morphology, and semantics.

The corpus was compiled and classified by an outsourced data collecting expert, specialized in data harvesting, web scraping, data extracting and mining. *Harvesting* is a term used to refer to collecting a considerable size of data automatically via a *python* script. *Scraping* is a computer term for the process of transferring a set of data from a website into an Excel spreadsheet. The developer wrote a *python* script to connect with the REST API and eventually created the corpus of this study. The script included a set of rules that produced the required data. It controlled for the number of tweets, the language under investigation, the region, as well as the male and female names of twitterers, which were used to control for gender. Five thousand tweets, 2,500 by men and 2,500 by women, were thus randomly selected. The data was then sorted and imported into two Excel files, one listing 2,500 male tweets and the other 2,500 female tweets.

The script formula was also written in a way that would restrict data collection to a specific geographical location. Each tweet carries a location code that reveals where it was posted from. This was used to focus the collection of data

on Jordan. Each Twitter *place* comes with a country code, indicating the country in which the place is located. The country code operator allows the developer to filter the tweets according to geographical location. The country code for Jordan is JO.

Since Twitter does not save the gender of its users, the researcher controlled for gender by using male and female names. Ten common male names and ten common female names were used to collect the tweets of people carrying these names. A maximum of 10 tweets were taken from each individual's profile, with a 50/50 male-female ratio. This means the individual number of Twitter users whose language has been studied in this volume is 500 different people. Names that can be used for both genders such as *Noor* and *Jihad* have been deliberately avoided.

There is, of course, a margin of error since a male might register himself under a female name and vice versa. This margin, however, can be considered negligible for several reasons. First, the number of people using pseudonyms on Twitter worldwide is relatively small, only 6%, according to Peddinti et al. (2017). Secondly, the number must be even smaller since men and women who decide to use a pseudonym will most likely choose one which matches their real gender, especially in Jordan. According to Whitaker (2016: 2), "Gender identity is a person's internal, deeply felt sense of being male or female." Of gender identity in countries of the Middle East, like Jordan, Whitaker (2016: 1) writes: "When so much of the social structure is based around a clear-cut distinction between male and female, anything that obscures the distinction is viewed as a problem and sometimes even as a threat to the established order."

As mentioned above, the tweets which make up the corpus were randomly selected. Only tweets with a written text were analyzed. Picture-only or hyperlink-only tweets were excluded from analysis and replaced by a further random selection to bring the total up to five thousand. The data were classified and analyzed both manually and electronically.

2. Literature review

As early as Patrick's analysis of profanity in 1901, research has dealt with topics such as the psychology of profanity, frequency of different swear words, ubiquity of swearing, the categories under which swear words fall, as well as gender differences. Studies of the psychology of profanity are concerned with, among other things, the reasons behind swearing, when people swear, and to what extent swearing impacts recipients. Patrick (1901:7) found that swearing is an emotionally triggered response which is both instinctive and primitive—much like the cries of animals when threatened. In his own words: "People swear when they are provoked, or annoyed, or surprised by a hurt or injury... The most striking effect [of swearing] is that of a pleasant feeling of relief from a painful stress" (Patrick 1901: 5). This was confirmed by several subsequent studies. In a study by Mohr (2013: 5), for example, participants were able to keep their hands longer in extremely cold water while repeating the word *shit* rather than the word *shoot*. Stephens and Umland (2011) and Swee and Schirmer (2015) contended that swearing is a reaction to some sort of pain or discomfort. A later analysis by Stephens and Robertson (2020) explored swearing, particularly new swear words, as a response to pain and found

that newly coined swear words do not give the same pain-comforting effects as older ones. In a different study, Turel and Qahri-Saremi (2018) maintain that social-media profanity is triggered by the human emotional system, and that people often swear as a natural response to pain. Some studies, on the other hand, investigated the impact of swearing on the recipient. Hinduja and Patchin (2008) and Jay (2009) found that swearing can lead recipients to have lowered self-confidence and, in some severe cases, even self-harm. Verbal abuse is recognized as a form of bullying behavior, which in turn, can even lead the recipient to suicide ideation (Mossige et al. 2016).

One integral research topic in the field of language and profanity is gender differences. Cressman et al. (2009) noted that most profanity research centers on determining the differences in swearing between men and women. The main questions that researchers have attempted to answer is: who of the two genders swears more, who is more polite and who uses which swear words? Answers to these questions are to a great extent influenced by stereotypes and preconceived ideas about the two genders. Politeness and profanity are not opposites; they often overlap and are better viewed as two poles of a spectrum, with politeness on one end and profanity on the other. It is possible, for example, to swear *politely* as in saying *f you* rather than using the full form *fuck you*. This is noteworthy because many swear words are concealed by politer forms, and this may affect the accuracy of a frequency survey of male versus female swear words. The following points (1-6) summarize the findings of previous research as per the gender differences in swearing between men and women:

1. Men swear more than women (Lakoff 1973; Foote and Woodward 1973; Jay 1992).
2. Women swear more than men (Dennis 2016; Helen 2016; Nicholas 2016).
3. Women are generally more polite than men (Jespersen 1922; Kramer 1974; Lakoff 1975; Gomm 1981; Hudson 1992; Coates 2003).
4. Women are cursing with increased frequency over time (Bate and Bowker 1997, Nicholson 2016).
5. Swearing is more common within the same gender rather than in mixed-sex communication (Jay 1992).
6. Profanity is a show and exercise of social power for men (Selnow 1985; de Klerk 1991).

One study worth noting is that of Gauthier (2017), who examined the effect of age and gender on Twitter users' use of the word *fuck*. The study was based on a corpus of over 18 million tweets emitted by approximately 739 thousand users. Gauthier (2017) controlled for geographical location (i.e., the United Kingdom) so that he can compare his findings to studies conducted on the same region. The study found that men swear more than women, that older women swear much less than men, and that the most common swearwords are *fuck*, *shit*, *bloody* and *piss*. The following table shows how swearing is influenced by both age and gender. It illustrates that both men and women

swear the most in their teenage years, particularly between 12-18. The frequency of swearing, however, drops sharply for older women, reaching only 2.8% within the age group 46-60.

Table 2. The effect of age and gender on swearing in Britain's Twitter

		12-18	19-30	31-45	46-60	All
Women	Vulgar tweets	8.4%	7.1%	2.8%	2.8%	7.5%
	Average n° tweets	29	28	50	35	29
	Median n° tweets	8	7	7	7	7
Men	Vulgar tweets	9.4%	8.2%	6.2%	4.2%	8.6%
	Average n° tweets	32	37	41	42	35
	Median n° tweets	7	8	8.5	7.5	7

(Gauthier 2017: 129)

Other studies found no significant difference between men and women with respect to swearing. These include that of Soedjono (2012), a study based on a corpus of 2,627 female tweets and 908 male tweets. The study concludes that while there are differences between men and women in their employment of pronouns and abbreviations, there are similarities in their use of obscene words. Soedjono (2012: 5) explains that the swear words used on Twitter by the two genders are almost identical, and that the main gender difference therein stems from spelling variety.

3. Methodology

3.1 Data collection and control

Collecting data from Twitter requires having a developer's Twitter account for which one may apply. The second step is to go to www.apps.twitter.com, where one can create an app to execute data collection. The app allows access to, and communication with, Twitter's API (application program interface). The API, in turn, is used to ask another program to collect the required data according to a set of parameters defined by the developer. There is, of course, a restriction on the number of times one can request data from Twitter. The restriction, however, is renewed every 24 hours.

There are two types of data collection from Twitter, namely, streaming API and REST API. The earlier is used to collect real-time data. This method is mainly used for marketing purposes as it furnishes companies with updated information about what is trending in products and services. The REST (representational state transfer) method is used to collect data all at once. This type of data is used by sociolinguists and other researchers to study and analyze language use and language change over a specific time period. Adopting this method, the current study was able to collect data from 2015 to 2020. The time period can be controlled for in data collection. Other parameters include the geographical location, the number of

tweets gathered from each account and the content of targeted tweets. Every tweet has its own unique URL. A typical URL looks like this:

<https://twitter.com/chadwickboseman/status/1299530165463199747/>

Besides the main web address of Twitter, a URL contains the username of the Twitter user (i.e., chadwickboseman) as well as the individual number of the tweet (i.e., 1299530165463199747). By collecting tweets, one is basically collecting URLs. A URL is termed a *request*. The resulting data from the request is called *response*.

3.2 Data analysis framework

For the analysis of profanity, this study adopts Bergen's modal (2016) which divides profanity into four categories: religion-related, sex-related, bodily-functions, and racial slurs. This classification was based on the most common swear words in English as well as other languages like French and Russian. As Bergen (2016: 25) put it: "nearly all the most profane words in Great Britain, New Zealand, and the United States fall into one of these four categories: praying, fornicating, excreting, and slurring." Under the category of religion, Bergen (2016) lists words such as *holy*, *hell*, *God*, *damn*, *goddamn*, *Jesus Christ* and *bloody*. In English, the mere mention of God's name can be considered offensive. This originates from the third commandment: "You shall not take the name of the Lord your God in vain, for the Lord will not leave him unpunished who takes His name in vain," (*Exodus* 20:7). Expressions such as *Jesus Christ!* and *Oh My God!* are thus considered swear words by orthodox Christians. Likewise, saying *Jesus* angrily is considered a swear word by many people in the US. Saying *ya: ?alla:h* (O, Allah), however, is taken well by devout Muslims, even if said to express anger or frustration. In Jordan, a majority Muslim country, the mere mention of the name of God is not frowned upon, but rather encouraged in line with the Quranic instruction, "O, you who believe, mention the name of Allah profusely" (33:41).

The analysis below has paid regard to this significant difference between the two cultures. Bergen's religion-related swear words which apply to the Arabic culture are mainly curses. One common swear word in Jordan, for example, is *yil'an ?abu:k* (may your father be cursed). Swearing at God, however, is mainly restricted to fights and road rages in Jordan. One anticipates that there is little or no such imprecations in the corpus, for Twitter is a public microblog that people generally use thoughtfully and composedly, rather than at the spur of the moment or when they lose their temper.

Secondly, Bergen (2016) divides sex-related swearwords into four parts: the acts themselves (*fuck*), sex organs (*pussy*, *cock*), people (*cocksucker*, *motherfucker*, *bitch*) and artifacts and effluvia (*spooge*, *dildo*). The word *fuck* is one of the most common swearwords worldwide as mentioned above, and it is therefore anticipated that it will top the list of sex-related words in the data.

Thirdly, Bergen (2016) classifies bodily functions into three categories: things that come out of the body (*shit*, *cum*, *pis*), the process of getting them out (*pooping*, *dumbing*, *defecating*) and the part of the body from which they come out

(*ass, asshole, butt, butthole, dick, cock*). It is noteworthy that the latter category can also refer to sexual acts. They are, however, listed under bodily functions because they are simply the parts of the body, used to serve a function. According to *Collins Dictionary*, a “person's bodily functions are the normal physical processes that regularly occur in their body, particularly the ability to urinate and defecate.” The final category is racial slurs. Examples include *nigger, faggot, retard*, and the like. It is interesting how the word *faggot* makes the list of racial slurs rather than that of the sex-related category. There is a cultural difference here that was taken into account. Homosexuality in the Arab world is not associated with race, but rather with sexuality. Therefore, if incidents of this word happen to appear in the Arabic corpus, they will be listed under the sex category, based on their cultural classification.

Bergen's modal deliberately excludes animal epithets and disease name calling. Examples of this include calling someone monkey in English or *ʔajrab* (mangy) in Arabic. Such insults were left out because Bergen (2016) focused his modal on the most profane words, rather than swear words in general.

4. Results and discussion

4.1 Overall results

The discussion begins with the general findings and then proceeds to give examples and compare the results with previous studies. The following table shows the frequency rates and percentages of swearwords in the corpus:

Table 3. Frequency rates and percentages of swear words in the corpus

Category	Frequency	Percentage
Sex	48	47.04 %
Bodily Functions	31	30.38 %
Religion	16	15.20 %
Race	0	0%
Total	98	

Table 3 reflects the uneven swear word usage across the four categories. The Sex-related and bodily-function swear words were the most frequently used. Mohr (2013: 3) states that “over the centuries these two spheres of the unsayable—the religious and the sexual/excremental... have given rise to all the other ‘four-letter words’ with which we swear.” Table (4) illustrates the individual swear words found in the data.

The most frequent profane word is *fuck* (38 occurrences) under the sex category, followed by *shit* (31 occurrences) of the bodily functions category. This supports Benedictus (2014) and Mead (2014), who found the words *fuck* and *shit* to be the most common swearwords on Twitter. This is also demonstrated by Google's American English Corpus as explained above. The high frequency of these two words might be explained by people's increasingly high exposure to them through motion pictures and modern literature. These two words, in particular, occur quite

invariably in contemporary movies and books. According to Cruz (2014), for example, the words *fuck*, *shit* and their derivatives occur numerous times in the movie *The Wolf of Wall Street: fucking* (358 times), *fucked* (169 times), *motherfucker* (18 times), *fuck* (16 times), *fucksville* (4 times), *shit* (69 times), *bullshit* (7 times) and *shitty* (8 times). Twenge et al., too, (2017:4) observe that there is a similarly sharp rise in the usage of obscene language in American books in the 2000s compared to those published in the 1950s.

Table 4. Frequency and percentages of individual swear words

Word	Category	Male	Female	Total	Percentage
fuck	Sex	16	22	38	40.0%
shit	Bodily functions	0	31	31	32.6%
damn	Religion	5	8	13	13.7%
bitch	Sex	1	6	7	7.4%
hell	Religion	0	3	3	3.2%
ass	Bodily functions	0	3	3	3.2%
pussy	Sex	0	1	1	1.1%
Total		22	74	96	

4.2 Religion-related swear words

Religion-related swear words include *hell*, *holy*, *God*, *damn*, *goddamn*, *Jesus Christ* and (the British) *bloody*. The data recorded no usage of *God*, *Jesus Christ*, and *bloody* as swear words. The religion-related swear words which appeared in the corpus, according to Bergen's (2016) model, are only two: *hell* and *damn*. Whereas no usage of the word *hell* is recorded in the male tweets, the word *damn* appears five times. In the female corpus, the word *damn* appears eight times and the word *hell* three times.

Thus, the word *damn* is the most frequent religion-related swear word in the data. The relatively high frequency of the word *damn* can be ascribed to its syntactic flexibility; it can occupy several places in the sentence, functioning as a noun, adverb, adjective, interjection, or a filler. The following two examples illustrate the usage of *damn* as an interjection and a filler, respectively:

- (1) I really don't fck with people who don't see anything wrong in their actions, it's 2018 bitch learn how to self reflect damn
- (2) Then check my account like damn they really took it <https://t.co/Wfvxhd99Od>

Another reason comes from mother-tongue interference. As mentioned above, a very common Arabic swear word happens to be *يلعن* *yil^Can*, which translates into *may something (or someone) be damned*. The English word *damn* might simply be a literal translation of its Arabic equivalent. *Damn* can also be used as a verb (as in the expression *God damn it*), but there are no instances of such usage in the data. Just like the word *fuck*, when *damn* is used as an intensifier, it

might take on a positive meaning as in the following tweet. In such a case, it is not treated as a swear word.

(3) How can moms smell so damn good all the time? WTF IS THIS SORCERY

The word *hell*, on the other hand, is not as syntactically flexible as *damn*. It functions only as a noun or interjection. It is noteworthy that all three instances of the word *hell* seem to be motivated by a strong emotion of anger and/or frustration, which supports the claim that swearing is often used to express an emotion (Foote and Woodward 1973; Hirsch 1985; Jay and Janschewitz 2008; Rassin and Muris 2005; Vingerhoets et al. 2013):

(4) Looking back on your old Facebook pictures and thinking "What the hell was I doing" " omg embarrassing eww "

(5) Is this hell's week or what?

(6) Again why in the hell am I studying engineering ??! .. I have no freakin idea! #EngineeringSucks

Finally, the zero reported occurrences of the common and mainly British swear word *bloody* might be attributed to morphology. Unlike all the recorded monosyllabic swearwords (i.e., *fuck*, *bitch*, *damn*, *hell*, *shit*), *bloody* consists of two syllables. Besides their ease of articulation, monosyllabic swear words are preferred because they usually contain less letters and thus require less keystrokes. Furthermore, all the swear words reported in the data consist of closed syllables, unlike *bloody*, which ends with an open syllable. According to Bergen (2016: 43-53), closed monosyllabic swear words are more commonly used than open multisyllabic ones because they sound more profane.

4.3 Sex-related swearwords

As Table 3 above illustrates, the swear words under the category of sex are *fuck*, *bitch* and *pussy*. *Fuck* is the most frequent swear word in the corpus, which is a universal fact. Mead (2014), Benedictus (2014), along with the current study, found that the most frequent swear word on Twitter is *fuck*. As mentioned above, the ubiquity of the word *fuck* may be attributed to people's high exposure to this word through motion pictures and modern literature. Another reason might be concluded from the linguistic fields of syntax and semantics. Syntactically, the word *fuck* is very flexible; it can occupy any position in the sentence, functioning as an adjective, verb, noun, or interjection. The following are examples from the corpus:

(7) the life is full of fuck people :p (adj)

(8) Irritated anoyed wana fuckn errr (v)

(9) Zero fucks is given (n)

(10) School is going to start soon ..Well fuck (interj)

Semantically, the word *fuck* is sometimes used as a filler, in which case it carries little or no meaning, beyond being a curse:

(11) can you fuck shut up?

(12) As long as I don't feel it I don't fuck believe it's there

Another reason might be the fact that the strength of the word *fuck* can be readily mitigated by the now universally adopted abbreviations (f, fck, f**k, as in 13 and 14 below). Such abbreviations allow for higher rates of frequency because they save both keystrokes and character space.

(13) I really don't fck with people who don't see anything wrong in their actions, it's 2018 bitch learn how to self reflect damn

(14) F you!

The word *fuck* is the only sex-related swear word found in the male tweets. All other examples of sex-related swear words come from female tweets. This may support the general belief that women's linguistic competence (in this case, their sex words vocabulary) is greater than that of men. We shall further discuss gender differences in using sex swear words below.

Instances of the words *bitch* (six times) and *pussy* (once) occurred in the female tweets only. Examples include:

(15) i've learned to keep my distance frm ppl who r always the victim in every story they tell lol bitch learn to self reflect we all make mistakes...it's cool lol

(16) Wow...sorry I rattled your chain, @TedCruz. I thought you would have more important things to do two days before an election — like sucking up to the guy who called your wife ugly and accused your dad of murder. But I get it! It's hard to say no when Trump grabs ya by the pussy!

Almost all the examples that contain the words *bitch* and *pussy* contained several mistakes in grammar, spelling and punctuation. The diction sounds informal and mainly indicative of spoken language. The correspondence, however, between language competence and one's knowledge and usage of swear words requires further research and is beyond the scope of this study.

4.4 Bodily functions

The only bodily function swear word found in the data is *shit*. There are 31 occurrences of this word, and they all come from female tweets. In an extensive Twitter study reported by *The Guardian*, the word *shit* has been found to be the most popular swear word after *fuck* (34.7%, 15.0%) (Benedictus 2014). The reason for this might be attributed to the semantic and syntactic diversity that these two words have developed over time. Like *fuck* and *damn*, the word *shit* can occupy

almost any place in the sentence. It can also be used to replace any word, as in the following examples:

- (17) Leo knows the best way to avoid disappointment, is to not expect shit from anyone
- (18) thanks man . I had a shit day to be honest ! Wish I could have chilled with you boys
- (19) Getting pregnant should be illegal for some time. Humans need to stop reproducing until they get their shit together
- (20) My missus has just walked upstairs and handed me a fathers day card, never shit myself as much.

Using the word *shit* as a word replacement is a practice now known as *replace a shit*. The Urban Dictionary defines this phenomenon as “replacing random words in a sentence with ‘shit’ . Used for added intensity or pure enjoyment,” and thus a sentence like “*I have to run to the library to study calculus*” becomes “I have to ‘shit’ to the library to ‘shit’ calculus.” (www.urbandictionary.com). The fact that the word *shit* can take the place of any random word in the sentence undoubtedly contributes to its high frequency.

4.5 Gender differences

This section examines the differences between male and female tweets in their usage of swear words. Among other things, it seeks to determine who of the two genders swears more and whether the difference is significant.

Table 5. Standard deviation and mean of male/female swear words

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Total	male	250	0.0880	0.36987	0.02339
	female	250	0.2960	0.96129	0.06080

As explained above, the total number of tweets is 5000, taken from 500 individuals: 250 male and 250 female. A maximum of ten tweets were taken from each individual account, which allows an equal chance of swearing among the subjects. The data recorded 96 occurrences of swearwords: 74 from female tweets and 22 from male tweets. At face value, women appear to swear more than men. To determine, however, whether the difference is statistically significant, we carried out an Independent-samples *t* test, using gender as a grouping variable and the total of means as a test variable:

Table 6. Independent-samples *t* test of the total means of swear words

		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Total	Equal variances assumed	-3.193	498.00	0.001	-0.208	0.06514
	Equal variances not assumed	-3.193	321.14	0.002*	-0.208	0.06514

* $p \leq 0.05$

This test clearly shows that there is a statistically significant difference ($p \leq 0.05$) between the male group and the female group, in favor of the latter. This stands as statistical evidence to the effect that women swear more than men, contrary to several above-mentioned studies.

The data also reflects that women's repertoire of swear words is greater than that of men. Table 4 above shows that men used only three words in their incidents of swearing: *fuck*, *damn*, and *bitch*; whereas women used *fuck*, *shit*, *damn*, *bitch*, *hell*, *ass*, and *pussy*. This does not mean that men are more polite than women. In fact, a closer look at the data confirms the opinion of Jespersen (1922), Kramer (1974, 1975), Lakoff (1975), Gomm (1981) Hudson (1992) and Coates (2003) that women are more polite. The data reflected that although women use the word *fuck* more than men, they tend to mitigate its effect by using abbreviated forms (i.e., fck, wtf, f, fu*k). According to Carey (2015), abbreviating profane words permits people to use a mode of language they would otherwise be uncomfortable to spell out. By contrast, male tweets included no such abbreviations. It might be argued, however, that the abbreviated forms are just a natural reaction to Twitter's 280-character limit. If this is true, one would anticipate that the abbreviated forms would appear in longer tweets rather than shorter ones. A tweeter writing a long tweet is expected to be more conscious of the limit and thus use abbreviations. To test the validity of this claim, Windows Excel enables character count through the formula: =LEN(cell). Using this feature, we found that the character limit was not a factor. In fact, women sometimes use abbreviated forms in extremely short tweets (as in example (14) above) and use full forms in relatively longer tweets as in:

(21) My missus has just walked upstairs and handed me a fathers day card, never shit myself as much. Sat here thinking shes having a baby and when i open it, its from the fucking cat. Weird breed your women.

The longest tweet containing the word *fuck* in the female tweets was 203 characters long, which is well below the 280-character allowance. This means that the character limit does not have any bearing on women's choices of using abbreviated or full swear words.

5. Conclusion

This study attempted to explore the types and frequencies of swear words on Jordan's Twitter. It sought to explain why and how certain words were used more

frequently, and if gender is an important factor in the number and type of swear words used. In general, the study found that the most common swear word used on Jordan's Twitter is *fuck*, followed by *shit*, *damn*, *bitch*, *hell*, *ass* and *pussy*, respectively. The study ascribed the high frequency of these words in Jordan and worldwide to:

1. The syntactic flexibility of *fuck*, *shit* and *damn*, in particular, as they can function as nouns, adjectives, verbs, interjections or fillers.
2. The linguistic practice of replacing any word in the sentence with the word *shit*.
3. Using swear words as a strategy to deal with pain and express emotions.
4. Ease of articulation and typing.
5. High exposure to swear words through motion pictures and modern literature.
6. Mother-tongue interference.

The study also reported some gender differences in the usage of swear words. It presented statistical evidence establishing that women swear more than men. This contradicts stereotypical views about the two genders. Of that, Coates (2013: 86) writes, "we all grow up to believe that women talk more than men, that women 'gossip', that men swear more than women, that women are more polite, and so on. Research in this area often directly challenges cultural stereotypes".

Women tended to mitigate the effect of their swear words by using abbreviations. This was not done by men. Twitter's character limit had no impact on the usage of these abbreviations, as they appeared in relatively shorter tweets. Women also used a greater variety of swear words than men.

While this study has examined some aspects of usage of profanity on Jordan's Twitter, many questions remain for further investigation. For example: how far would variables like the time of day in which a tweet was posted affect the type and frequency of swear word usage? How far do folk knowledge and preconceived notions of gender differences still influence the language which each gender uses? Given the noticeable increase in the usage of swear words in the last decades, is there a concurrent cultural shift in people's perception of what constitutes a profanity?

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