



universität
wien

MASTERARBEIT / MASTER'S THESIS

Titel der Masterarbeit / Title of the Master's Thesis

„Testing spiral of silence: the case of legalizing abortion in
Nigeria“

verfasst von / submitted by

Amarachi Chinyeaka Ugbor

angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of

Master of Science (MSc)

Wien, 2018 / Vienna 2018

Studienkennzahl lt. Studienblatt /
degree programme code as it appears on the
student record sheet:

A 066 550

Studienrichtung lt. Studienblatt /
degree programme as it appears on
the student record sheet:

Communication Science

Betreut von / Supervisor:

Prof. Dr. Homero Gil de Zuniga

Abstract

Research on spiral of silence in recent years has been focusing on the phenomenon in an online context. However, there is yet little known about spiral phenomena even offline in African countries. On these notes, investigating a Nigerian population, this paper examines the influence of perceived majority opinion on willingness to speak out. Employing a 3x3 experimental design, the present study embarked on the task to test willingness to speak out in an offline setting with (1) family, (2) friends and (3) strangers. Using the controversial issue of legalizing abortion in Nigeria, the study aimed at assessing how the interaction between one's personal opinion and the perceived climate of opinion may affect spiral of silence effects. Results however, provided no support for the proposed hypotheses. The main concepts of interest were found to be not significant. Findings and other theoretical implications are discussed.

Keywords: Spiral of silence, Offline setting, Controversial Issues, Hostile Media perception, Interdependence, Issue importance.

Testing Spiral of silence: the case of legalizing abortion in Nigeria.

Noelle-Neumann, 1974 spiral of silence has the central assumption that people assess opinion climate and if their opinion is in the minority they are more likely to remain silent to avoid isolation from groups or society. As an established public opinion theory, it argues that a spiral effect is created when individual's assume that their own point is not universally shared (Hampton et al., 2014). Over time public opinion of alleged majority wins over alleged minority (Eilders & Porten-Chee, 2016). The assumed influence of spiral of silence attracted great deal of research in social and behavioural studies testing voting behaviour of young citizens (Chen, 2011); investigating violent behaviour (Varela-Rey, et. al, 2017) and in predicting online political expression (Velasquez & Rojas, 2017). Accordingly, the concept fear of isolation and willingness to express opinion has been considered the main dependent variable of spiral of silence theory in both online forum (Woong Yun and Park, 2011) and offline setting (Liu and Fahmy, 2011). Even though the spiral of silence was traditional tested offline, the digital world has drawn attention to scholars on the need to test this effect online (Soffer & Gordoni, 2018). Investigation on spiral of silence online Price et al., (2006) showed that online political discussion has an effect on political behaviour. Other scholars comparing online and offline setting found higher more support for willingness to speak out online than in offline (Ho & McLeod, (2008). On the contrary, McDevitt, Kiouisis and Wahl.Jorgensen (2003) revealed that people in the minority restrained from sharing their true viewpoints in the chat discussion on abortion. Also in their study, Hampton et al., (2014) focusing on an important public issue - Snow-NSA story on Facebook and Twitter revealed that a huge 86% of people were willing to discuss the issue offline than online. Additional research found that fear of isolation is more offline than online (Wormald, 2014), stressing that the tendency to select and second-rate an information online manipulates these effects (Metzger, (2009). This

suggest that willingness to speak out is more offline than online. Also considering the issue been discussed most people avoid discussing highly controversial topics online. Moy et al., (2001) suggest that spiral of silence effect might be different online compared to offline. Thus the need for this study to test the spiral of silence effect in offline setting. While studies have acknowledged the effects spiral of silence in the western societies, little attention has been paid to the cultural differences (Scheufle & Moy, 2000) and Africa. The need for attention in others parts of the society is necessary because occurrence of spiral of silence may weaken or amplify based on the demographic characteristics and issue significance. For instance, Salmon and Neuwirth (1990) found no difference between local and national level in the issue of abortion. According to the author, the demographic composition of the city could have influenced the spiral phenomenon. Summing up, this thesis explores several factors that may affect spiral on the issue of legalising abortion in Nigeria. A list of other factors may affect willingness to speak such as importance of the issue, interdependence, moral values as well as religious affiliation.

The unique contribution of this study in two folds. First, the paper will offer an in-depth understanding of how spiral of silence theory works in a higher macro context as the information obtain will be useful opinion formation and communication research. To the best of my knowledge, this will be the first study in spiral of silence to consider African sample. Second, address the lack of study in the part of reference group in an offline setting which strongly tones opinion and climate and predicts willingness to speak out (Matthes, Knoll & Sikorski, 2017). Lastly, the paper will contribute methodologically and theoretically to already existing literature.

Literature Review

Controversial issues: Legalising abortion

The propounder Noelle-Neumann affirms that a morally laden or emotional laden issue, will create a strong social pressure on one's view (Noelle- Neumann, 1993). Such topical controversial issues have been discussed in research on spiral of silence as inter-racial marriages (Lee et al., 2004), affirmative actions (Moy et al, 2001); in naturalization of immigrants (Mattes et al, 2010), also in gay marriage (Fox & Warber, 2015) and the most frequently tested is abortion (Salmon & Neuwirth, 1990). Indeed issues regarding abortion has been identified as a controversial issue among people (Yun and Park, 2011). Extant research using abortion as the central issue provides empirical support for the spiral of silence (McDevitt, Kiouisis, & WahlJorgensen, 2003; Salmon & Neuwirth, 1990; Yun & Park, 2011). Studies indicates that countries where abortion laws have been liberalized, general opinions change to support it (David, 2013). In Nigeria for example, abortion is not legalised and considered a criminal act by punishment and this has generated discourse and campaign among citizens (Kpolovie and Oguwike, 2017). The idea is that issues such as those carry weight in the media environment and are considered relevant in raising opposing camps (Eilders & Porten-Chee, 2016). Abortion debates has been argued in political, social, medical and legal fields raising two major camps: Pro-choice- those who insist that a woman should decide what she wants to do with her situation, hence fight for the legalization of abortion, and Pro-life- those who strongly oppose legalization of abortion hence fight for the unborn child to live (Welch, 2010). Recent study investigating abortion in Nigeria examined the demographics such as gender, region and religiosity influence and sociocultural implications (Olaitan et al, 2017). Till date no study has utilized the media theory of

spiral of silence in Africa as a whole and Nigeria in particular. The spiral of silence theory allows us to understand the issue of legalizing abortion in Nigeria society. Annually in Nigeria both reported and unreported cases on abortion are 30,500,000 (Kpolovie, et al., 2017; National population Census, Federal Republic of Nigeria, 2014). Research reveal that abortion is a delicate topic prevalent among female under graduates and high school students (Kpolovie & Oguwike, 2017). Salmon & Kline 1985, suggests that an issue been examined in spiral of silence should be highly visible in the country or media to produce significant public and private discussions. I expect this issue to spur deviate opinions among the public and influence among Nigerian citizens.

Spiral of silence in offline settings

This thesis operationally defined offline setting as a setting made up of family, friends and maybe strangers. This means a setting that excludes social media world. Still theorizing on the spiral effect, fear of isolation (FOI) has been found to be the real obstacle of willingness to express an opinion (Woong Yun and Park, 2011). Based on its importance, it has been tested empirically by scholars and results show that the higher fear of isolation results to less willingness to express opinion (Glynn Park, 1997, Willnat et al, 2002, Ho & McLeod, 2008). Results from trends of studies observing spiral of silence online suggest that individual fear of isolation is evident more offline than online (Ho & McLeod, 2008; Wormald, 2014). Implying that the lack of physical presences in the online settings make people more willing to speak their minds (Woong Yun & Park, 2011). Recent study debunked these findings insisting that whether online of offline, people depend on group dynamics before deciding to contribute to an issue (Salmon & Kline, 1985). Most studies define this group as reference group (Glynn and Park, 1997, Kim, 2012). Kim 2012 noted that in weighing opinion climate, people depend on reference groups to monitor opinion climate.

While some studies showed group may play an important role in perception of widely held opinions (Salmon & Kline, 1985; Talyor 1982). However since the results are old, I assume a different effect of reference group on fear of isolation.

In addition, since people rely on reference to monitor opinion climate (Dahlberg, 2001; Johnson et al., 2008; Stroud, 2008), I assume that perceived opinion climate will influences willingness to express personal opinion. Studies revealed that congruence between self- opinion and majority opinion encouraged willingness to speak (Woong Yun & Park, 2011). Glynn and colleagues 1997, in their meta-analysis study found support for influence of perceived climate of opinion on willingness to speak among close ties, however the effects is questionable to whether it universal applies in all countries or strictly peculiar to selected countries (Lee et al., 2004). On the other hand, Moy et al., 2001 found that willingness to express one's view was predicted by a perceived congruent opinion climate among friends and family. The conflicting results led this study to investigate the impact of spiral of silence in a real world setting (offline) with an African sample. Hence the need to test in collective society such as Nigeria on the issue of abortion since studies again showed a significant relationship between perceived congruency and willingness to speak out on controversial issues (Lasorsa, 1991; Salmon & Neuwirth, 1990; Yang, 1997). As strong as the issue of abortion is individuals may be more willing to express their opinion to their friends and family than they would for strangers since exclusion from ones social primary group or close ties is more important and serious than from a larger group or strangers (Moy, Domke, & Stamm, 2001; Matthes, Knoll & Sikorski, 2017). Additionally, even though congruence has been confirmed to be the strongest predictor of opinion expression research till date has produced mixed results in both online and offline setting (Porten-Che  , & Eilders, 2015). For instance Ho and

McLeod (2008); Gearhart & Zhang, 2013; Kim Kim & Oh, 2014) found no strong evidence to support spiral of silence in contrast Liu & Fahmy (2011) who found evidence for spiral of silence. The conflicting results could be due to study design and issue under investigation. To verify these results under experimental setting, this study hypothesizes that:

H1: Fear of isolation will be negatively associated with individual's willingness to express their opinion to (a) their family (b) friends (c) strangers about legalizing abortion.

H2: Congruency between individual's personal opinion and article read will lead to less fear of isolation.

H3: Congruency between an individual's personal opinion and perceived opinion climate negatively predicts willingness to speak to a) family b) friends c) strangers.

Hostile Media Perception

According to Noelle-Neumann, (1974), perception of public opinion is very crucial within the spiral of silence theory. Individuals are motivated or discouraged to speak based on the public opinion (Noelle-Neumann and Petersen, 2004). However to assess these opinions, they are dependent on the media to monitor their environment for popular opinion (Eilders, & Porten-Che , 2016). The powerful influence of the media in creating an atmosphere for the individuals to conform to public opinion have been over emphasized in fields of communication studies (Kim, et al., 2004). Jeffres et al., (1999), suggest that the media influence coined into spiral of silence produces an audience that would perceive media coverage slanted against them. This means that individuals are likely to perceive that majority opinion is different from their opinion (Noelle-Neumann and Peterson, 2004). The perceived media bias is best referred to as hostile media perception (Vallone, Ross & Lepper, 1985). The concept states that individual's on opposite

sides perceive media content as contrasting to their own opinion (Gunther & Chia, 2001; Hwang et al., 2008). Implying that people belong or commit to one side of a group during an argument blaming the media been biased (Vallone, Ross & Lepper, 1985). Existing studies have tested this phenomenon in both print and broadcast media (Christen et al., 2002; Dalton et al., 1998) including with controversial issues like abortion and Mideast conflict (Giner-Sorolla & Chaiken, 1994). Whether investigated in partisan media, or as news source effect or perceived media bias in news organizations (Arpan & Raney, 2003; Coe, et al., 2008), hostile media effects have always produced two camps of individuals. Those who perceive media coverage to be bias to their own opinion and those who do not (Vallone, Ross, & Lepper, 1985). The issue of abortion works well with HMP as it also produces the pro-life and pro-choice (Saad, 2014). Studies demonstrates that contradiction between one's own view and media coverage activates individual's reaction (Moy et al, 2001). In their recent study, Feldman, et al., (2017) examined the effect of political ideology (conservatives and liberals) on hostile media perception. Results showed that hostile media perception has a direct relationship with climate change activism. Previous studies have consistently found that people perceive media coverage as unfavourable to their own view point (Kim 2011; Eveland & Shah, 2003; Gunther & Chia, 2001). In this study, I expect participants to act according their choice and view on abortion. Thus one side of the group will assume that media coverage is biased. Based on literature, I propose

H5: Individuals on opposing groups of abortion reading a newspaper article will perceive the content as being bias to their own view point.

Interdependence

Spiral of silence has been tested in many countries like United States (Scheufele and Moy, 2000), Canada (Glynn and Park, 1997), Germany (Noelle-Neumann, 1993) Japan (Tokinoya 1996) and to the best of my knowledge not in Africa. Studies indicate that cultural predispositions such as power distance and interdependence influences attitudes of individuals (Hofstede, 1983, Mak, et al., 2009). This could imply that cultural factors of a given country might be a significant predictor for testing people's willingness to speak out (Scheufele and Moy, (2000: 19). In their study Lee, et al., (2004), tested the spiral of silence hypothesis among United States residents and Singapore population. Results showed a slight support for the spiral of silence effect in Singapore but not in the States. The obvious reasons for this differences in behaviour is culturally embedded (McCroskey & Richmond, (1998). Often times, scholars neglect these effects due to lack of disparity in culture and lack of proper measurement (Lee, et al., (2004). Most widely used psychological concept used in comparing cultures is individualism and collectivism (Oyserman & Lee, 2008). The idea is that within an individualistic society, individuals are seen independent-self while in collectivist the reverse is the case. (Gudykunst, 1998). Hofstede, (1980) ordering these cultural characteristics scored Nigeria low 30% in individualism meaning that the country is more collectivist in nature. Individuals found low on this dimension are basically committed to collective interest and group conformity (Juslin et al., 2016). Failure to conform may result to exclusion from group (Hofstede, 1980). The concept of individualism and collectivism are significant in testing the spiral effect in that it outlines the cultural patterns influencing willingness to speak (Ho, Chen & Sim, 2013). In her study with Taiwan and United states, Huang (2005) found that group conformity is associated with willingness to speak out. In the same line Hofstede, (2001) suggest that in lower power distance cultures people are seen as more interdependent while high

power distance individuals are more independent. Nigeria also ranks low in this aspect. Based on these findings, Nigeria is described as interdependent which emphasis more on group conformity (Markus and Kitayama, 1991). Fernández, et al., (2005) in their study in 29 nations with 5688 students confirmed that collectivist societies emphasize group loyalty and obligations towards family, clan, ethnic and religious group. Studies indicates that people who perceive themselves as individualistic are more willing to speak their opinion publicly unlike people in collectivist society. As cultural patterns is associated with willingness to speak out, we expect interdependence to be related to willingness to speak about abortion. Therefore I hypothesis that:

H6: There will be a relationship between interdependence and willingness to speak to a) family b) friends c) strangers.

Issue importance

Noelle- Neumann, (1973), propose that an issue tested under the spiral of silence hypothesis must possess a moral component or must be “value laden” in other to provoke public discussion. Thus the magnitude of the issue itself will determines the amount of attention the publics will give to it (Neuwirth et al., 2007). Studies investigating spiral of silence have considered this effect and treated it as ones knowledge about the issue (Kim et al.,2014), one’s personal concern (Salmon & Newuwirth, 1990), perceived importance (Matthes et al., 2010), attitude certainty (Glynn & Park, 1997), issue involvement (Ho et al., 2013). Moy et al., (2001) treating affirmative action found out that perceived issue importance influence willingness to speak out. Previous study indicates that issue importance is a significant predictor for willingness to express opinion. This means that people care deeply about an issue matter will be more likely to take part in the discussion. Therefore, this study posit:

H7: Issue importance will positively predict individual's willingness to express their opinion to a) family b) friends c) strangers.

Methodology

Participants and procedure

To achieve the research goal, an online experimental survey was carried out. A total of 340 participants were recruited through a snowball sampling technique. The survey lasted from June 9, 2018 to July 9, 2018. Participants were randomly assigned to three distinct groups- For Abortion, 119 respondents Against Abortion 107 respondents and Neutral Abortion 114 respondents. One control group and two treatment groups. The stimulus newspaper article contained fictitious news about legalization of abortion. Three version of the abortion information was created based on the three conditions. Participants were randomly assigned to one of the three experimental conditions For Abortion, Against Abortion and Neutral Abortion.

Measures

Dependent variables.

Fear of isolation (FOI). This construct was measured on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Respondents will be asked the following: (a) “*I worry about being isolated if people disagree with me*” (b) “*I avoid telling other people what I think when there's a risk they will avoid me if they knew my opinion*”. (c) “*I do not enjoy getting into arguments*”. (d) “*Arguing over controversial issues improves my intelligence*” (e) “*I enjoy a good argument over a controversial issue,*” (f) “*I try to avoid getting into arguments*”. This scale was adopted from Scheufele et al (2001). Item 5 was reversed. (M= 3.42 SD= 1.33) and a

Cronbach's coefficient .702.

Willingness to speak out (WTS). To measure the construct opinion expression respondents will be asked "how willing they are to discuss about legalization of abortion" among: a) Family b) Friends c) Strangers, ranging from 1 (very unwilling) to 7 (very willing). Willingness to speak to family ((M= 3.35 SD= 2.261), willingness to speak to friends (M= 4.15 SD= 2.289) and willingness to speak to strangers (M= 3.7 SD= 2.177). Cronbach alpha was very high .896. Overall more people were unwilling to speak to their family (n=168), majority were very willing to speak to their friends (n=153) while (n=135) reported unwilling to speak to strangers.

Independent variables.

Personal opinion. Adopted from Gunther and Chia, (2001) asked "Personally, how do you feel about legalizing abortion? The construct was measured on a scale of 7-point scale -3 (Strongly oppose) 0 (Neutral) to +3 (Strongly support). (M= 2.74 SD= 2.102). In total respondents opposed on the topic (n= 201), (n= 56) answered neutral and only (n=66) respondents supported the topic.

Perceived public opinion. To measure this construct respondents were asked, "what do you think most Nigerians think about the issue of legalizing abortion"? On a 7-point scale, ranging from -3 (Strongly oppose) 0 (Neutral) to +3 (Strongly support). (Gunther and Chia, 2001). The mean for this variable is (M= 3.21, SD= 1.827). In sum, majority of the respondent perceived that the general public will opposed abortion (n= 167).

General attitude. The study examined individual's attitude on the issue by asking: What is your general attitude towards abortion? Options included, a). *Illegal in all circumstance* b). *Illegal in most circumstances* c). *Neutral* d). *Legal in most circumstance* and e) *Legal in all circumstances*. This measure was adopted from adapted from Saad, (2015). For this variable, majority responses was that abortion should be illegal in all circumstances 26% (n= 89). (M= 2.59, SD= 1.305).

Issue importance. The measures used here was adapted from (Kim et al., 2014; Willnat et al., 2002; Zaichkowsky, 1985). Respondent were asked to indicate the sentence that best suits their opinion ranging from 1 (strongly disagree) to 7 (strongly agree). a) *This is an important issue.* b) *I am familiar with this issue.* c) *I am interested in this issue.* d) *I think about this issue all the time.* e) *This issue is of my concern to me.* f) *This issue is relevant to me.* g) *This issue matters to me.* h) *I think this is a salient issue in the society.* i) *I would like to discuss this issue with someone else.* j) *This issue is significant to me.* (M= 4.9, SD= 1.36). Reliability test for this measure was high .920.

Perceived hostile media perception. (HMP). The study measured the construct media hostility by asking a single question, “How do you perceive the article you just read? Item was measured on a seven Likert scale 1(Strongly negative) to 7(Strongly positive). This measure was adapted from Gunther & Chia, (2001). (M=3.28, SD=1.86). Majority of the respondents viewed the article as neutral (n=95).

Perceived social support. Adapted from Gunther & Chia, (2001; Glynn & Park, 1997; Moy et al., 2001) measured perceived social support from reference group (i.e., family and friends). Respondents were asked “*In your estimation, what percentage of your friends do you think support abortion*”, “*In your estimation, what percentage of your family do you think support abortion?*” and lastly “*In your estimation, what percentage of your Nigerians do you think support abortion?*” Options included “0-10”, “10-20”, “20-30”, “30-40”, “40-50”, “50-60”, “60-70”, “70-80”, “80-90”, “90-100”. (M=3.21, SD=1.83).

Power distance. The construct was measured with four items adopted from Ho et al., (2013). The scale includes the following items: (a) *‘People in higher positions should make most*

decisions without consulting people in lower positions'. (b) 'People in higher positions should not ask the opinions of people in lower positions too frequently', (c) 'People in higher positions should avoid social interaction with people in lower positions', and (d) 'People in higher positions should not delegate important tasks to people in lower positions'. (M=2.06, SD=1.08).

Cronbach coefficient was .736.

Interdependence. This construct was measured with 13 items adapted from Fernandez, and colleague (2005). Respondents were asked to choose what describes them the best, ranging from 1 (strongly disagree) to 7 (strongly agree). *a) It is important to me to maintain harmony within the group. b) My happiness depends on the happiness of those around me. c) I respect people who are modest about themselves. d) I will sacrifice my self-interest for the benefit of the group I am in. e) I often have the feeling that my relationships with others are more important than my own accomplishments. f) It is important for me to respect decisions made by the group. g) I would stay in a group if they needed me. h) I'd rather say "no" directly than risk being misunderstood. i) I am comfortable with being singled out for the praise and rewards. j) I act the same way no matter who I am with. k) I enjoy being unique and different from others in many respects. l) my personal identity independent of others is very important to me. m) I prefer to be direct and forthright when dealing with people I've just met. (M=5.37, SD=.810). Cronbach alpha was good .801.*

Control variables.

Variables included here was adopted from studies on the spiral of silence (Matthes, 2015). They include age, "How old are you? The average age was between 25-35 years old 57% (n=194). What is your gender? The choices included "Male", "Female". Of which the majority are female 53% (n=179) and male 41% (n=138). Education, "what is your highest educational qualification"

majority completed bachelor's degree 67% (n=228). Religious affiliation was "*How would you describe your religious preference*"? Options included "Protestant", "Catholic", "Muslim", "Traditionalist", and "Not religious". Majority of the participants 45% (n=151) are protestants. Majority earn between 140 and above annually. Summarily, by randomization, 35% (n=119) of participants read the support news condition, 33.5% (n=114) saw the neutral news while 31.5% (n=107) were exposed to the opposed condition. Lastly moral values questions were asked adapted from Padilla-Walker and Jensen (2015). Ranging from 1 (not at all important), to 7 (completely important) the question was measured with 11 items as: a) *I should take responsibility of myself.* b) *I should try to achieve my personal goals.* c) *I should be fair to other individuals.* d) *I should take care of my family.* e) *I should be cooperative.* f) *I should know my place or role in a group.* g) *I should strive for social harmony.* h) *I should aim for spiritual salvation.* i) *I should aim a holy life.* j) *I should follow God's law.* k) *I should strive for spiritual purity.* This measure assessed participants moral value as a control variable (M=5.89, SD=.876). Reliability scale was high. Cronbach coefficient .917.

Analytical strategy

To address the hypothesis in this study several analyses was conducted on Spss. After data cleaning, most variables were recoded and for some new indexes on Spss. Additional a series of multiple regression test and analysis of variance was done.

Results

Hypothesis 1 predicted that fear of isolation will be associated with individual's willingness to express their opinion to (a) their family (b) friends (c) strangers. To assess this, a hierarchical regression was performed with the control variables (age, gender, education, income, religious affiliation and moral values). Before performing the regression test, Sex and religious affiliation measures were changed from categorical scale into continuous scales. Dummy code for sex was Male= 1 and Female =0. Model 1a explains 1.4% of the total variance and the table is not significant. Coefficient table shows that there is no statistical significant association between willingness to speak to family and fear of isolation. Therefore, hypothesis 1a not supported. However, age was significant ($\beta = .480, p = .037$). Men were likely to speak to family. For 1b the total variance explained is 6% and not significant. Results shows that there is no statistical significant association between willingness to speak to friends and fear of isolation. Therefore, hypothesis 1b not supported by the data. Lastly 1c model explains only 7% of the total variance and not significant. Coefficient results shows that there is no statistical significant relationship between willingness to speak to strangers and fear of isolation. Age was statistical significant ($\beta = .509, p = .026$). Meaning that the older a person is the more likely he or she will be willing to talk to strangers. Therefore, hypothesis 1c not supported by the data.

.....Table 1 about here

To test hypothesis 2 and interaction effect test was conducted. To test the congruency effect, an index created for oppose condition (OPPOSECON) and for support condition (SUPPORTCON). A hierarchical regression test was performed controlling for age, sex (male), income, education, religious affiliation (Protestants) and moral values. The model explains 6.1%

total variance and is not significant. Result shows that there is no statistical significant influence of the two variables (personal opinion and article read) on fear of isolation significant.

OPPOSECON ($\beta = -.058$, $p = .558$) AND SUPPORTCON ($\beta = -.123$, $p = .187$). Therefore, hypothesis 2 not supported. Among the controls moral value ($\beta = -.208$, $p = .037$) and Income were significant ($\beta = -.123$, $p = .000$). Obviously the findings makes sense for personal morals. Respondents who score high on moral value were less likely to speak to strangers about legalizing abortion.

.....Table 2 about here

For hypothesis 3, we examined the relationship between perceived opinion climate and person opinion. Before the test, a variable called PERPOC was computed. The overall model for 3a) family explains 6.9% of the total variance and statistically significant ($p = .002$). Result showed no statistical relationship between both independent variable on willingness to speak to family. Therefore hypothesis 3a not supported by the data. However Gender (Male) was significant ($\beta = .593$, $p = .037$). Men were more likely to speak about their personal opinion to their family. The model summary 3b for friends explains 13% of the total variance and highly significant ($p = .000$). Therefore, hypothesis 3b not supported. However, personal opinion when compared alone was statistically significant ($\beta = -.459$, $p = .000$). Also income ($\beta = -.117$, $p = .036$). Individuals who earned more money were less likely to speak about abortion. This means that people who are higher on their personal opinion about legalizing abortion would very much likely more willing to speak to their friends about the topic. Total variance explained in 3c for strangers was 10% and highly significant ($p = .000$). Again, the coefficient table showed no significance relationship between PERPOC and willingness to speak to strangers. Therefore, hypothesis 3c not supported.

Personal opinion was also significant among strangers. So those who scored high on personal opinion are more willingly to express their opinion among strangers.

.....Table 3 about here

Hypothesis 4 predicated that each group would perceive media bias against their own view point. An analysis of variance test was conducted. The Levene's test shows that the dependent variable has equal variance among the three groups $p > .05$. Results of between subject effects shows $F(2,326) = 2.030$, $p = .001$. Therefore, I reject the null hypothesis that there is a significant difference between the group means. On the Post hoc test there is no statistical significant. Therefore 4 not supported. However, the clinical significance of these results shows a very strong effect $p = .001$. Hypothesis 5 was interested in relationship between interdependence and willingness to express their opinion. I predicated a negative associated between interdependence and willingness to speak to (a) their family (b) friends (c) strangers. To assess this, a hierarchical regression was performed with the control variables (age, gender, education, income, religious affiliation and moral values). The total variance explained in the first model for family is 2.9% and not significant. Result shows that interdependence does not significantly predict willingness to speak to family. Therefore hypothesis 5a not support by the data. Among the controls only age was significant ($\beta = .533$, $p = .010$). Older people aligned more to their interdependence concept. This made them more willing to speak to their family about legalizing abortion. Concerning friends, the model explains only 8% of the total variance and is not significant. Results show that there is no statistical significance relationship between interdependent and willingness to speak to friends. Again hypothesis 5b not supported by the data. Lastly for willingness to speak to strangers, the total variance explain 2.2% and slightly significant ($p = .049$). Coefficient table shows a slight statistically significant association between independence and willingness to speak to strangers is

($\beta = -.399$, $p = .049$). This means the higher people score on the interdependence the less willing they are to speak to strangers. Therefore hypothesis 5c supported by the data. The control variable age showed significance ($\beta = .467$, $p = .020$). Older people were more likely to speak about abortion to their strangers.

.....Table 4 about here

Hypothesis 6 proposed issue importance will positively predict individual's willingness to express their opinion on abortion. A hierarchical multiple regression was conducted while controlling for age, gender, income, education, religious affiliation and moral values. The overall model for 6a family explains 7.9% of the total variance and is highly significant ($p = .001$). Coefficients tables shows that there is a statistical significance association between issue importance and willingness to speak to family ($\beta = .415$, $p = .000$). Therefore, hypothesis 4a supported. The total model explained for 6b friends is 4.8% and is significant ($p = .000$). In addition, there is a statistical significance association between issue importance and willingness to speak to friends ($\beta = .413$, $p = .000$). Lastly for willingness to speak to strangers the overall model explains 4.9% of the total variance and is highly significant ($p = .001$). Results shows that there is a statistical significance relationship between issue importance and willingness to speak to strangers ($\beta = .371$, $p = .001$). Therefore, hypothesis 6c supported. For all three groups, the higher an individual score on the issue importance the more willing they are to speak to their family, friends and even strangers about legalizing abortion. Similarly, Age was significant ($\beta = .445$, $p = .027$). Older people saw the importance of abortion issue and were more likely to discuss the issue with their family and also strangers.

.....Table 5 about here

Discussion

This study attempted to expand our understanding on the spiral of silence theory by exploring on the issue of legalizing abortion in Nigeria with offline setting of group made up family, friends and strangers. Overall finding did not support previous studies on spiral of silence. Firstly, the findings contradicts previous literature who found support for willingness to speak and fear of isolation (Moy et al, 2003). The data for this study failed to prove such effect. Contrary to previous findings (Woong & Park, 2011) the interaction effect personal opinion and perceived opinion climate did not predict willingness to speak out. However personal opinion alone appeared to be significant but among friends and strangers. Christen & Gunther, (2003) in their study found support for the variable. According to them, individuals who perceive a strong view on an issue will be more willing to share their personal opinion. Finding also supports previous studies who showed that friends were an important group associated with willingness to speak out. (Chen, 2011; Moy et al., 2001), hence among peer group one is encouraged to share their personal opinion. Our data also reported that respondents were more willing to discuss about the topic with their friends than with family. Since you do not have close ties with strangers, they are unlikely to judge your opinion as much as strangers would. It is not surprising that individuals also shared their personal opinion with strangers. As they do not have a personal acquaintance opposing or supporting the issue of abortion would not matter. In addition, independence was supported among strangers. This findings supports Lee, et al., (2004) that found that participants who perceive themselves as highly collectivist were less likely to speak about legalizing abortion publicly. The findings also explains the central assumption of spiral of silence which affirms that individuals worry more about isolation from other members of the society which refrains them from speaking in public (Noelle- Neumann, 1974, 1993). Hence participants were less willingly to speak to stranger to avoid sharing unpopular opinion and escape avoidance. Similarly, the findings supports

this confirms Scheufele & Moy, (2000) who suggest that cultural composition of a country predicts willingness to speak in public. As expected findings found support for issue importance. Issue importance was highly associated with willingness to speak out. Whether among family members, friends or strangers the importance of an issue to an individual determines his or her willingness to express an opinion. Results confirms what previous study found that issue importance is a significant predictor for willingness to speak. The more an issue is important to participants the more likely they were to speak about abortion to their friends, family and strangers. Although not an interest for this study, Age appeared to be significant in most of the analyses. Older people were more not afraid to share their opinion.

Above all, this study failed to achieve the task of predicting spiral of silence in Nigeria. The lack of findings from this study may have stemmed up from the following. First, the sample size of the study. Nigeria is highly populated with over 180million people. A sample size of 305 in an experimental setting of three condition was not enough to make inference on the general population. Similar to the sample size is the effect size. Since the sample size was little, the effect size appeared to be insufficient. Additionally most respondents in this experimental study were bachelor degree holders. This sample is not large enough to make generalization. The theory is robust and requires more sample to confirm the spiral effect. Secondly the measurement. As the spiral of silence theory is associated with, a lot of assumption including all measures in a single study would be impractical. This study treated only few of those measures. Thirdly, the sampling techniques adopted for the study could have been problematic. Based on the theoretically complexity of the spiral of silence theory, a wide variety of techniques should be employed to properly test the spiral effect. Lastly the stimuli design was not convincing enough for participant hence the failed results from each condition. As Salmon & Kline, 1985 posited that topics treated

in spiral of silence must be current and highly visible in the media. Abortion issue is not heavily discussed in the Nigeria media today. The disregard for issue salience may have contributed to lack of evidence to validate spiral of silence in Nigeria. Participant's geographical location, level of education and religiosity of which are associated with abortion attitude (Jozkowski, et al., 2018). All these might have affected the results from this study. Based on statistics, abortion is mostly performed in rural areas of whom majority are uneducated (National Statistical Service Ministry of Health and ICF, 2017). However the study concentrated this survey on in urban areas. Although inconclusive, the study shed light in spiral of silence in Nigeria. Future studies should employ a combination of survey and content analysis this will provide an in depth knowledge on if and how spiral of silence hypothesis works in Nigeria. Also future studies should test the study cross culturally. Maybe comparing two different countries would provide different results.

References

- Askay, D.A. (2015). Silence in the crowd: the spiral of silence contributing to the positive bias of opinions in an online review system. *New Media and Society* 17:1811–1829.
- Chen, K. J. (2011). A test of the spiral of silence theory on young adults' use of social networking sites for political purposes.
- Christen , C. T., Kannaovakun, P., & Gunter, A. C. (2002). Hostile media perception: Partisan assessments of press and public during the1997 UPS strike. *Political communication* 19, 423-436.
- Christen, C. T., & Gunther, A. C. (2003). The influence of mass media and other culprits on the projection of personal opinion. *Communication Research*, 30(4), 414-431.
- Dahlberg L (2001). The Internet and democratic discourse: Exploring the prospects of online deliberative forums extending the public sphere. *Inf. Commun. Soc.*, 4(4): 615-633.
- Dalton, R. M., Beck , P. A., & Huckfeldt, R. (1998). Partisan cues and the media: Information flows in 1992 Presidential election. *American Political Science Review*, 92, 111-126.
- David. H.P (2013) Abortion policies. In E.S Hodgson (2011). Abortion and sterilization, medical and social aspect: Academic press, Grune and Staton, London.
- Eilders, C., & Porten-Che  , P. (2016). Spiral of silence revisited. *Political communication in the online world: Theoretical approaches and research designs*, 88-102.
- Eveland Jr, W. P., & Shah, D. V. (2003). The impact of individual and interpersonal factors on perceived news media bias. *Political Psychology*, 24(1), 101-117.

- Feldman, L., Hart, P. S., Leiserowitz, A., Maibach, E., & Roser-Renouf, C. (2017). Do hostile media perceptions lead to action? The role of hostile media perceptions, political efficacy, and ideology in predicting climate change activism. *Communication Research*, 44(8), 1099-1124.
- Fernández, I., Paez, D., & González, J. L. (2005). Independent and interdependent self- construals and socio-cultural factors in 29 nations. *Revue Internationale de Psychologie Sociale*, 18(1), 35-63.
- Fox, J, and Warber K. M. (2015). Queer identity management and political self-expression on social networking sites: a co-cultural approach to the spiral of silence. *Journal of Communication* 65:79–100.
- Gearhart, S. and Zhang, W. (2015). “Was it something I said?” “No, it was something you posted!” A study of the spiral of silence theory in social media contexts. *Cyberpsychology, Behavior, and Social Networking*. 18:208-213.
- Gearhart, S., & Zhang, W. (2013). Gay bullying and online opinion expression: Testing spiral of silence in the social media environment. *Social Science Computer Review*, 32(1), 18–36. <http://dx.doi.org/10.1177/0894439313504261>.
- Giner-Sorolla, R., & Chaiken, S. (1994). The causes of hostile media judgments. *Journal of experimental social psychology*, 30, 165-180.
- Glynn, C. J., & Park, E. (1997). Reference groups, opinion intensity, and public opinion expression. *International Journal of Public Opinion Research*, 9(3), 213-232.

- Glynn, C., & McLeod, J. M. (1985). Implications of spiral of silence theory for communication and public opinion research. In K. Sanders, L. L. Kaid, & D. Nimmo (Eds.), *Political communication yearbook, 1984* (pp.43-65). Carbondale: Southern Illinois University Press.
- Gudykunst, W. B. (1998). Individualistic and collectivistic perspectives on communication: An introduction. *International Journal of Intercultural Relations*, 22, 107/134.
- Gunther, A. C., & Chia, S. C. (2001). Predicting pluralistic ignorance: The hostile media perception and its consequences. *Journalism & Mass Communication Quarterly*, 78, 688-701.
- Gunther, A. C. (1992). Biased press or biased public? Attitudes toward media coverage of social groups. *Public Opinion Quarterly*, 56(2), 147-167.
- Hampton, K. N., Rainie, H., Lu, W., Dwyer, M., Shin, I., & Purcell, K. (2014). *Social media and the 'spiral of silence'*. PewResearchCenter.
- Hofstede, G. (1983). National cultures in four dimensions: A research-based theory of cultural differences among nations. *International Studies of Management & Organization*, 13(1-2), 46-74.
- Hofstede, G. (1980). *Culture's consequences*. Thousand Oaks, CA: Sage.
- Hofstede, G. (2001). *Culture's Consequences*. Second Edition. Thousand Oaks: Sage.
- Ho, S. S., & McLeod, D. M. (2008). Social-psychological influences on opinion expression in face-to-face and computer-mediated communication. *Communication Research*, 35(2), 190-207.

- Ho, S. S., Chen, V. H. H., & Sim, C. C. (2013). The spiral of silence: examining how cultural predispositions, news attention, and opinion congruency relate to opinion expression. *Asian Journal of Communication*, 23(2), 113-134.
- Huang, H. (2005). A cross cultural test of the spiral of silence. *International Journal Public Opinion Research*, 17(3), 324–345
- Hwang, H., Pan, Z., & Sun, Y. (2008). Influence of hostile media perception on willingness to engage in discursive activities: An examination of mediating role of media indignation. *Media Psychology*, 11, 76-97.
- Jang, S.M., Lee, H., and Jin, P.Y. (2014). The more friends, the less political talk? Predictors of Facebook discussions among college students. *Cyberpsychology, Behavior, and Social Networking* 2014; 17:271–275.
- Jeffres, L. W., Neuendorf, K. A., & Atkin, D. (1999). Spirals of silence: Expressing opinions when the climate of opinion is unambiguous. *Political Communication*, 16(2), 115-131.
- Johnson, T. J., Bichard, S. L., & Zhang, W. (2012). Revived and refreshed: Selective exposure to blogs and political web Sites for political Information. In *Networked sociability and individualism: Technology for personal and professional relationships* (pp. 196-217). IGI Global.
- Jozkowski, K. N., Crawford, B. L., & Hunt, M. E. (2018). Complexity in Attitudes Toward Abortion Access: Results from Two Studies. *Sexuality Research and Social Policy*, 1-19.

- Juslin, P. N., Barradas, G. T., Ovsianikow, M., Limmo, J., & Thompson, W. F. (2016). Prevalence of emotions, mechanisms, and motives in music listening: A comparison of individualist and collectivist cultures. *Psychomusicology: Music, Mind, and Brain*, 26(4), 293.
- Kim, S.-H., Kim, H., & Oh, S.-H. (2014). Talking about genetically modified (GM) foods in South Korea: The role of the Internet in the spiral of silence process. *Mass Communication and Society*, 17(5), 713–732. <http://dx.doi.org/10.1080/15205436.2013.847460>.
- Kim, S. H. (2012). Testing fear of isolation as a causal mechanism: Spiral of silence and genetically modified (GM) foods in South Korea. *International Journal of Public Opinion Research*, 24(3), 306-324.
- Kim, K. S. (2011). Public understanding of the politics of global warming in the news media: The hostile media approach. *Public Understanding of Science*, 20, 690-705. doi:10.1177/0963662510372313
- Kim, S. H., Han, M., Shanahan, J., & Berdayes, V. (2004). Talking on ‘Sunshine in North Korea’: A test of the spiral of silence as a theory of powerful mass media. *International Journal of Public Opinion Research*, 16(1), 39-62.
- Kpolovie, P. J., & Oguwike, A. (2017). Female students’ attitude towards abortion. *International Journal of Humanities Social Sciences and Education (IJHSSE)*, 4(11), 98-120.
- Kpolovie, P. J., Ewansiha, S., & Esara, M. (2017). Continental Comparison of Human Development Index (HDI). *International Journal of Humanities Social Sciences and*

- Education (IJHSSE)*, 4(1), 9-27.
- Kwon, K. H., Moon, S.-I., & Stefanone, M. (2014). Unspeaking on Facebook? Testing network effects on self-censorship of political expressions in social network sites. *Quality & Quantity*, <http://dx.doi.org/10.1007/s11135-014-0078-8>.
- Lasorsa, D.L. (1991). Political outspokenness: Factors working against the spiral of silence. *Journalism Quarterly*, 68(1-2), 131-140.
- Lee, W., Detenber, B. H., Willnat, L., Aday, S., & Graf, J. (2004). A cross-cultural test of the spiral of silence theory in Singapore and the United States. *Asian Journal of Communication*, 14(2), 205-226.
- Liu, X., & Fahmy, S. (2011). Exploring the spiral of silence in the virtual world: Individuals willingness to express personal opinions in online versus offline settings. *Journal of Media and Communication Studies*, 3(2), 45e57.
- Mak, W.W.S., Chen, S.X., Lam, A.G., & Yiu, V.F.L. (2009). Understanding distress: The role of face concern among Chinese Americans, European Americans, Hong Kong Chinese, and Mainland Chinese. *The Counseling Psychologist*, 37(2), 219-248.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological review*, 98(2), 224.
- Matthes, J., Knoll, J., & von Sikorski, C. (2017). The “Spiral of Silence” Revisited: A Meta Analysis on the Relationship Between Perceptions of Opinion Support and Political Opinion Expression. *Communication Research*, 0093650217745429.

- Matthes, J., Morrison, K. R., & Schemer, C. (2010). A spiral of silence for some: Attitude certainty and the expression of political minority opinions. *Communication Research*, 37(6), 774-800.
- Matthes, J., Morrison, K. R., & Schemer, C. (2010). A spiral of silence for some: Attitude certainty and the expression of political minority opinions. *Communication Research*, 37(6), 774-800.
- Matthes, J. (2015). Observing the 'Spiral' in the spiral of silence. *International Journal of Public Opinion Research*, 27(2), 155–176.
- McCroskey, J. C., & Richmond, V. P. (1998). Willingness to communicate. In J. D. McCroskey, J. A. Daly, M. M. Martin, & M. J. Beatty (Eds.), *Communication and personality: Trait perspectives* (pp. 119/131). Cresskill, NJ: Hampton Press
- McDevitt, M., Kioussis, S., & Wahl-Jorgensen, K. (2003). Spiral of moderation: Opinion expression in computer-mediated discussion. *International Journal of Public Opinion Research*, 15(4), 454-470.
- Metzger MJ. (2009) The study of media effects in the era of Internet communication. In Nabi RL, Oliver MB, eds. *The Sage handbook of media processes and effects*. Los Angeles, CA: Sage, pp. 561–576.
- Moy, P., Domke, D., & Stamm, K. (2001). The spiral of silence and public opinion on affirmative action. *Journalism & Mass Communication Quarterly*, 78(1), 7-25.
- Mutz, D. C. (1989). The influence of perceptions of media influence: Third person effects and the public expression of opinions. *International Journal of Public Opinion*

Research, 1(1), 3-23.

National Population Commission Federal Republic of Nigeria (2014). Nigeria Demographic and Health Survey 2013. Abuja, Nigeria: FRN Press.

National Statistical Service, Ministry of Health and ICF. (2017). Armenia Demographic and Survey 2015-16. Rockville, Maryland, USA: National Statistical Service, Ministry of Health and ICF: Retrieved from http://www.ysu.am/files/Digital_Health_Survey_Report.pdf.

Neuwirth, K., Frederick, E., & Mayo, C. (2007). The spiral of silence and fear of isolation. *Journal of communication*, 57(3), 450-468.

Noelle-Neumann, E. (1974). The spiral of silence a theory of public opinion. *Journal of Communication*, 24, 43-51. doi:10.1111/j.1460-2466.1974.tb00367.x.

Noelle-Neumann, E. (1993). *The spiral of silence: Public opinion-our social skin*. (2nd ed.). Chicago: University of Chicago Press.

Noelle-Neumann, E. (1984). *The spiral of silence: Our social skin*. Chicago: University of Chicago Press.

Noelle-Neumann, E., & Petersen, T. (2004). The spiral of silence and the social nature of man. In *Handbook of political communication research* (pp. 357-374). Routledge.

Olaitan, O. L., Oniye, A., Olawuyi, B., Bakinde, S., & Aina, M. (2017). Attitudes of University Students towards Abortion in Nigeria: The Role of Health Counselling. *KIU Journal of Social Sciences*, 3(2), 109-115.

Oyserman, D., & Lee, S. W. (2008). Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psychological bulletin*, 134(2), 311.

- Padilla-Walker, L. M., & Jensen, L. A. (2015). Validation of the long-and short-form of the Ethical Values Assessment (EVA): A questionnaire measuring the three ethics approach to moral psychology. *International Journal of Behavioral Development*, doi:10.1177/0165025415587534.
- Price V, Lilach N, Joseph NC (2006). Normative and informational influence in online political discussions. *Commun. Theory*, 16(1): 47- 74.
- Saad, L. (2014). US still split on abortion: 47% pro-choice, 46% pro-life. *Gallup Politics*, 22.
- Saad, L. (2015). Americans Choose “Pro-Choice” for First Time in Seven Years. Gallup.
- Salmon, C. T., & Neuwirth, K. (1990). Perceptions of opinion “climates” and willingness to discuss the issue of abortion. *Journalism & Mass Communication Quarterly*, 67, 567-577. doi:10.1177/107769909006700312
- Salmon, C. T., & Kline, G. (1985). The spiral of silence ten years later: An examination and evaluation. In K. R. Sanders, L. L. Kaid, & D. Nimmo (Eds.), *Political communication Yearbook* (pp. 3–30). Carbondale and Edwardsville: Southern Illinois University Press
- Scheufle, D. A., & Moy, P. (2000). Twenty-Five Years of the Spiral of Silence: a Conceptual Review and Empirical Outlook. *International Journal of Public Opinion Research*, 12 (1), 3–28. doi: 10.1093/ijpor/12.1.3

- Slater, M. D. (2007). Reinforcing spirals: The mutual influence of media selectivity and media effects and their impact on individual behavior and social identity. *Communication theory*, 17(3), 281-303.
- Soffer, O., & Gordoni, G. (2018). Opinion expression via user comments on news websites analysis through the perspective of the spiral of silence. *Information, communication & society*, 21(3), 388-403.
- Stroud, N. J (2008). Media use and political predispositions: Revisiting the concept of selective exposure. *Polit. Behav.*, 30(3): 341–366.
- Taylor, D. G. (1982). Pluralistic ignorance and the spiral of silence: A formal analysis. *Public Opinion Quarterly*, 46(3), 311-335.
- Tsfati, Y., Stroud, N. J., & Chotiner, A. (2014). Exposure to ideological news and perceived opinion climate: Testing the media effects component of spiral-of-silence in a fragmented media landscape. *The International Journal of Press/Politics*, 19(1), 3-23.
- Tokinoya, H. (1996). A study on the spiral of silence theory in Japan. *Keio communication review*, 18, 33-45.
- Vallone, R. P., Ross, L., & Lepper, M. R. (1985). The hostile media phenomenon: Biased perception and perceptions of media bias in coverage of the Beirut massacre. *Journal of Personality and Social Psychology*, 49, 577–585. doi:10.1037/0022-3514.49.3.577
- Varela-Rey, A., Rodríguez-Carballeira, Á., Escartín, J., & Martín-Peña, J. (2018). Spiral of silence in a post-violent context: the influence of reference groups and fear of being in a minority position. *Behavioral sciences of terrorism and political aggression*, 10(2), 158-

- Velasquez, A., & Rojas, H. (2017). Political Expression on Social Media: The Role of Communication Competence and Expected Outcomes. *Social Media+ Society*, 3(1), 2056305117696521.
- Welch K. J. (2010). *Family Life Now*. Second edition. Boston, Pearson education, Inc.
- Willnat, L., Lee, W., & Detenber, B. H. (2002). Individual - level Predictors of Public Outspokenness: A Test of the Spiral of Silence Theory in Singapore. *International Journal of Public Opinion Research*, 14(4), 391-412.
- Woong Yun, G., & Park, S. Y. (2011). Selective posting: Willingness to post a message online. *Journal of Computer-Mediated Communication*, 16(2), 201-227.
- Wormald, B. (2014, August 25). If the topic of the government surveillance programs came up in these settings, how willing would you be to join in the conversation? Retrieved July 12, 2019 <http://www.pewinternet.org/2014/08/26/social-media-and-the-spiral-of-silence/pi-2014-25-socialdebates-01/>
- Yang, S. (1997). *Factors influencing willingness to speak out in the public spheres: A test of the spiral of silence in Korea*. Unpublished doctoral dissertation, University of Wisconsin-Madison.
- Zaichkowsky, J. L. (1985). Measuring the involvement construct. *Journal of Consumer Research*, 12(3), 341-352.

Appendix

Table 1.

Hierarchical Regression of fear of isolation predicting willingness to speak (WTS)

	WTS Family	WTS Friends	WTS Strangers
Male	.42	-.16	.07
Age	.48*	.25	.50*
Income	-.04	-.06	-.04
Education	-.19	.01	-.20
Protestant	-.29	-.20	.10
Moral value	-.05	-.22	.16
FOI	.12	.18	.15
R squared (%)	.014	.06	.07

Note: N: 262 (family); 252(friends); 254(Strangers).

Cell entries are standardized Beta (β) coefficients *
 $p < .05$

Table 2.

Hierarchical Regression of personal opinion and article opinion predicting fear of isolation (FOI)

	FOI
Male	.02
Age	-.06
Income	-.12***
Education	.08
Protestant	-.22
Moral value	-.20
OPPOSECON	-.05
SUPPORTCON	-.12
support	.33
Oppose	.27
Personal opinion	.03

R squared (%)	.061
Note: N=266. Cell entries are standardized Beta (β) coefficients: ***p < .001	

Table 3.

Hierarchical regression of personal opinion and perceived opinion climate predicting willingness to speak (WTS)

	WTS Family	WTS Friends	WTS Strangers
Male	.37	.12	.37
Age	.26	.04	.26
Income	-.09	-.11	-.09
Education	-.19	-.04	-.19
Protestant	.17	-.08	.17
Moral value	.07	.06	.07
Personal op	.34**	.45***	.34**
POC	.20	.24	.20
PERPOC	-.01	-.02	-.01
R squared (%)	.069***	.137***	.102***

Note: Cell entries are standardized Beta (β) coefficients **
p < .01 *** p < .001

Table 4.

Hierarchical regression of interdependence predicting willingness to speak

	WTS Family	WTS Friends	WTS Strangers
Male	.45	-.07	-.06
Age	.53*	.29	.46*
Income	-.05	-.08	-.07
Education	-.29	-.15	-.28
Protestant	-.33	-.24	.07
Moral value	-.05	-.11	-.06
Interdependence	-.22	.36	-.39*
R squared (%)	.029	.08	.022*

Note: N; 259 (family), 251 (friends), 253 (Strangers).
Cell entries are standardized Beta (β) coefficients * p < .05.

Table 5.

Hierarchical regression issue importance predicting willingness to speak

	WTS Family	WTS Friends	WTS Strangers
Male	.31	-.23	-.08
Age	.52**	.27	.44
Income	-.03	-.05	-.03
Education	-.28	-.02	-.20
Protestant	-.22	-.01	.23
Moral val	-.15	-.30	-.22
Issue import.	.41***	.41***	.37***
R squared (%)	.049 ***	.079***	.048***

Note: N; 257 (family), 248 (friends), 249 (Strangers).

Cell entries are standardized Beta (β) coefficients

*** $p < .001$

Zusammenfassung

Die akademische Forschung zur Schweigespirale (Spiral of Silence) ist heute hauptsächlich fokussiert auf die Untersuchung des Phänomens im digitalen Kontext online. Allerdings ist bisher noch wenig bekannt über die Einflüsse von Schweigespiralprozessen offline in afrikanischen Ländern. Die vorliegende Studie untersucht daher den Einfluss der wahrgenommenen Mehrheitsmeinung auf die Bereitschaft, die eigene Meinung (1) gegenüber der eigenen Familie, (2) gegenüber Freunden und (3) gegenüber Fremden zu äußern, in einer Offline-Umgebung in Nigeria. Anhand eines explizit kontroversen Themas, der Legalisierung von Abtreibungen in Nigeria, wurde ferner untersucht, inwiefern die Interaktion zwischen der eigenen und der wahrgenommenen Mehrheitsmeinung eventuelle Schweigespiraleffekte beeinflussen. Hierzu wurde ein 3x3-faktorielles experimentelles Design implementiert. Die aufgestellten Hypothesen werden allerdings nicht durch die Ergebnisse der durchgeführten statistischen Analysen gestützt. Die hauptsächlichen Konzepte hatten keinen signifikanten Einfluss. Die Ergebnisse und theoretische Folgen werden diskutiert.

Schlüssswörter: Schweigespirale, Offline-einstellung, Kontroverse Themen, Feindselige Medienwahrnehmung, Interdependenz, Wichtigkeit angeben.