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Sally J. McMillan
Major Professor

We have read this dissertation
and recommend its acceptance:

M. Mark Miller

Douglas Raber

Ronald E. Taylor

Acceptance for the Council:

Anne Mayhew
Vice Provost and
Dean of Graduate Studies

(Original signatures are on file in the Graduate Student Services Office.)

The Effect of Personality on the Spiral of Silence Process

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Kyoungtae Nam

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DEDICATION

To my grandparents Ilhyun Nam and Heeyoung Yoon

who taught me love and wisdom.

And to my parents Taekkyu Nam and Ohbok Gwon

who always believed in me.

Without love and support of my family,

this work would not have been possible.

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ABSTRACT

The study examines the effect of personality on the spiral of silence process. Despite the social-psychological nature of the spiral of silence theory, there has been little investigation on the relationship between personality and the spiral of silence process. In the current study, two personality constructs, independent/interdependent self-construal and right wing authoritarian personality, are examined to see how they affect a person's willingness to speak out. In March through April 2002, 714 college students were surveyed. Three topics that were identified as highly controversial in the preliminary study were used in the final survey: abortion (n=238), affirmative action (n=234), and capital punishment (n=242).

Little support was found for the overall spiral of silence theory. In general, people became more vocal on the topic of capital punishment when the opinion climate was perceived to be incongruent while people's perception of the opinion climate about abortion and affirmative action had little effect on their willingness to speak out.

In the hypotheses testing, the results showed that people's independent self-construal had a positive effect on their willingness to speak out in the topics of abortion and capital punishment, but not in affirmative action. Positive correlations between independent self-construal and hardcoreness were found for all three topics. The positive correlation was also found between authoritarian personality and hardcoreness for the topics of affirmative action and capital punishment.

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CHAPTER I

INTRODUCTION

Since its publication in 1973, Noelle-Neumann's spiral of silence theory has continued to generate considerable research in public opinion and mass communication. Surprisingly, though, few researchers have investigated the mediating effect of personality on the spiral of silence process despite its social-psychological nature. This study intends to fill that void. Furthermore, the focus on personality will offer a new leverage to examine inconsistent findings of previous studies through a common variable of personality.

The spiral of silence theory states that people constantly scan the opinion climate to assess which opinion is gaining or losing support in a public forum in order to avoid the social isolation caused by having a minority opinion or being on a losing side. The theory contends that if people perceive themselves as having a minority opinion or being on a losing side, they are likely to be silent while people will be more likely to assert their opinion with confidence if they perceive that their opinion belongs to a majority opinion or a winning side. Because this process of speaking out and being silent keeps spiraling, one opinion appears more dominant than it actually is, and eventually the perceived dominant opinion becomes, as a matter of fact, a dominant opinion (Noelle-Neumann, 1984, 1993).

The conceptual foundation of the theory relies to a great extent on the proposition that humans are social beings. Noelle-Neumann views humans as opportunistic creatures whose opinions and public behaviors are based on the perception of the opinion climate

rather than based on their own beliefs and reasoning. The force formed through these social and psychological interactions among members of society is public opinion that shapes the direction of society by pressuring individuals to conform. She further argues that this human characteristic should not be viewed as human weakness because it is, in fact, the precondition of the survival of a society (Noelle-Neumann, 1989, pp. 7-8). Noelle-Neumann suggests that every civilization has been formed and maintained by way of social control of public opinion.

Nevertheless, according to the spiral of silence theory, it is eventually an individual's fear of isolation that propels the person to constantly assess the opinion climate and often to change his or her opinion in accordance with the perceived majority opinion of the public. Although I categorically agree with her premise of fear of isolation being immanent in human nature, I argue that the extent that this fear dictates each person's behavior and opinion-formation is different from person to person. Of course, Noelle-Neumann understands that there are individual differences in willingness to express opinions in terms of gender, age, education, occupation, social status, articulateness, and temperament (Noelle-Neumann, 1984, pp. 24-25, 1995, p. 42). However, not only has little effort been focused on the effect of personality but also the focus on individual differences has been lacking in the study of the theory because the spiral of silence theory is unequivocally "society-centered" (McLeod, Pan, & Rucinski, 1995, p. 75).

Pervin (1989, p. 7) defines personality as "a set of points falling along several behavioral dimensions, each corresponding to a trait, resulting in a unique profile (i.e., type), different from that of other individuals." He further states that the notion of

personality type refers to the constellation of many different traits and thus signifies a greater degree of regularity and generality of behavior. In examining the impact of personality, I will focus on two personality concepts, independent/interdependent self-construal and authoritarian personality, which seem closely related to the spiral of silence process.

Singelis (1994, p. 581) defines self-construal as "a constellation of thoughts, feelings, and actions concerning one's relationships to others, and the self as distinct from others." Markus and Kitayama (1991), who first delineated the meaning of independent and interdependent self-construals, stated that these two images of self could influence and often determine a person's cognition, emotion, and motivation.

In light of the spiral of silence theory, the notion of self-construal suggests that people with a strong interdependent self-construal would behave in accordance with the spiral of silence process while people with a strong independent self-construal would not. In other words, the spiral of silence theory seems to suggest that most people have a dominating interdependent self-construal or their latent interdependent self-construal takes an active role in the public opinion process. I will examine how different levels of independent and interdependent self-construals in the individual affect opinion-formation and public behavior on a controversial issue.

Another personality type of interest is authoritarian personality. In the spiral of silence process, the public [and public opinion] is an authority (Noelle-Neumann, 1991, p. 282) in front of which the government and every member of society are to be judged. Public opinion pressures each and every member of a society, who had a part in shaping the public opinion in the first place, to conform. The greater authority the public is

perceived to have over the individual, the greater the pressure each person is likely to feel to conform to the authority of public opinion. Naturally, people with high authoritarian personality will be more sensitive to the authority of public opinion than people with non-authoritarian personality.[1]

Adorno and his colleagues (1950, p. 476) found that highly authoritarian people tend to seek external support derived from authorities or public opinion in order to find assurance concerning what is right and what is wrong. In other words, highly authoritarian people are more likely than non-authoritarian people to behave according to the spiral of silence theory because authoritarian people are less likely to be against the perceived majority opinion that indicates social approval or disapproval of a particular view in society. While the spiral of silence phenomenon might also be observed in non-authoritarian people, their behavior- and opinion-change between a majority-assent situation and majority-opposition situation will be less significant than that observed in highly authoritarian people.

Along with the effect of personality on the spiral of silence process, key variables of the theory have been examined to see how the theory holds in the present environment. For example, some scholars have argued that the Internet is different from other

[1] There are a variety of authorities in society, such as religion, nation, political party, and parents. It is probable that one's respect for one authority could be in conflict with his or her respect for another authority. In this situation, the individual's decision is likely to be influenced by the importance that he or she places on each authority. The existence of multiple authorities in society may confound the result of the current study in which public opinion alone is examined as an authority. However, in the context of the spiral of silence process, public opinion is expected to be the most important factor in a person's opinion-formation and behavior, for Noelle-Neumann considers public opinion as a most fundamental and powerful authority in society.

traditional media[2] because of high involvement of users. Because the effect of Internet usage as a political information source in the spiral of silence process has not been examined, it would be timely to ask whether Internet usage works as same as other traditional media usage in the spiral of silence process.

Nevertheless, one overriding research question guides this study: What are the effects of different personality types on the public opinion process? In other words, do individuals with different personality types differ in how they form and express their opinions in public?

[2] Powerful and omnipresent mass media is posited as a major part of the spiral of silence process. Noelle-Neumann argues that mass media, especially TV, manufacture a climate of opinion that is often different from the actual opinion distribution. Nevertheless, people are led to believe the media-made climate of opinion as the actual opinion distribution, and become silent if their views are different from the view preferred by the mass media.

CHAPTER II

LITERATURE REVIEW

The Origin of the Spiral of Silence Theory

Noelle-Neumann's Personal Experiences

Noelle-Neumann encountered a puzzling phenomenon during the German federal election in 1965. The two major parties, the Christian Democrats (CD) and the Social Democrats (SD), ran a neck-and-neck competition for a period of six months. With almost no change in the number of people who intended to vote for each party, there was a drastic change in people's expectation as to which party would win the election. For instance, about two months before the election, people favored the CD four to one over the SD as a probable winner in the election although people's voting intention for each party was equally strong. The neck-and-neck race was resolved shortly before the election in the direction suggested by the majority of people's expectation of a predicted winner. In the actual election in September 1965, the CD won the race with a solid nine percent lead.

As a professor at the University of Mainz, Noelle-Neumann experienced fundamentally the same phenomenon during the winter term of 1970/71. She observed that although students who wanted to hear her lecture constituted a majority, they were silenced by a group of protesting students active in public. She attributed the silence of the majority to fear of isolation and to fear of becoming unpopular with their fellow students for supporting her (Noelle-Neumann, 1989, pp. 9-10). In both cases, people picked up the opinion climate that was, in fact, wrong compared to the actual opinion

distribution, and this perception affected their behavior and, eventually, changed their opinion on the issue.

Intrigued by the pattern found in the two incidents, Noelle-Neumann started to test her hypotheses in the 1972 German federal election. She observed the same phenomenon that she had witnessed in the 1965 election. This time, the only difference was that people perceived the SD to be stronger than it actually was, while the actual strength of the two parties was similar. She argued that because of this favorable perception of the SD, some people, who initially had supported the CD, changed their voting intentions to the SD right before the election. In the end, the SD won the race with a four percent margin. She published the results of her research under the name of the spiral of silence theory in 1973.

The spiral of silence theory explains how a new public opinion forms and how an established public opinion spreads or dwindles. Therefore, a natural place to start the discussion would be what constitutes public opinion. In the following sections, various interpretations of "public" and "opinion" are examined as well as the meaning of "public opinion" in Noelle-Neumann and other scholars.

Definition of "Opinion"

Plato contrasted opinion (Doxa) with knowledge (Epistêmê) as fundamentally different concepts. Plato contended that Doxa is a popular belief that is fleeting and fickle in nature while epistêmê is sure knowledge of the unchanging "ideas" that regulates the phenomenal world. Plato viewed that Doxa is held by the many while epistêmê is only vested in the few. For instance, in his view, politics is a skill that is practiced by

philosophers, kings, or experts who are able to see the universe through epistêmê (Peters, 1995). Kant also relegated opinion to "insufficient judgment, subjectively as well as objectively" (1893, p. 498). Habermas stated, "'opinion' in the sense of a judgment that lacks certainty, whose truth would still have to be proven, is associated with 'opinion' in the sense of a basically suspicious repute among the multitude" (1989, p. 89).

Peters (1995, p. 5) argued that the definition of "opinion" experienced a radical transformation conceptually in the second half of the 18th century in France and England as revolutionary changes occurred in political institutions and ideas. Baker (1990) revealed this conceptual shift by comparing entries on "opinion" in the *Encyclopédie* (1765) and the *Encyclopédie méthosique* (1784-1787). The former describes "opinion" exclusively as a philosophical matter as contrasted with "science." On the other hand, the latter gives "opinion publique" a grand political role without any linkage to philosophy. Baker further explained that

> Whereas before its principal characteristics were flux, subjectivity, and uncertainty, now they are universality, objectivity, and rationality. Within the space of a generation, the flickering lamp of 'opinion' has been transformed into the unremitting light of 'public opinion,' the light of the universal tribunal before which citizens and governments alike must appear. (1990, pp. 167-168).

Peters (1995, p. 6) added, "opinion went from being a chief source of 'prejudice' (the target of many thinkers of the Enlightenment) to being its banisher. Opinion, villain of philosophy, became public opinion, hero of politics."

Definition of "Public"

Although Noelle-Neumann states that the element of "publicness" is immanent in the English word "opinion" (1984, p. 65), the explicit addition of "public" to "opinion"

during the 18th century must have played a significant role in the transformation of the meaning of "opinion" and "public opinion."

Peters (1995) argued that until the 20th century the concept of "public" emphasized the condition within which behaviors are carried out. Acting in public before one's peers involved one's honor, and thus public life could bring about glory as well as shame. He pointed out why the term "public" has brought so much controversy this way:

> the tension between *public* as something that all the people are involved in (the social-political sense) and *public* as something openly visible or known to all the people (the visual-intellectual sense) is still a dynamic central to our conception of the term. Recent debates about public opinion and democratic theory turn precisely on this issue: should the public participate in civic life actively, or is it enough that they have access to news and information in the media? How can the 'public' participate when the media seem the sole providers of public space? (Peters, 1995, p. 14)

Salmon and Kline (1985) argued that while in the U.S. the "public" in public opinion typically refers to a group of people as a noun, Noelle-Neumann uses public as an adjective that indicates the openness of an opinion to other people (the visual-intellectual sense in Peters, 1995). While their argument is legitimate, it is essential to examine how Noelle-Neumann views public as a noun to better understand her concept of the public opinion process. Noelle-Neumann explicitly states that everyone is involved in the public opinion process (1984, p. 64). However, this does not indicate that everyone is involved in the public opinion process all the time because public opinion can only be observed in a situation where different views compete with each other on a controversial issue.

This is where a paradox occurs in her theory. Unless there is an instant transmission of this controversial nature of an issue to all members of society, there

should be a middle state where not everyone in a community knows about the issue and is aware of its controversial element.[3] In other words, her mantra that everyone is involved in the process and her argument that an issue should be controversial as a precondition of the public opinion process cannot go together. It seems inevitable to exclude some part of a community from the public opinion process at any given moment.

Nevertheless, Noelle-Neumann's public is more inclusive than the public envisioned by other scholars mainly because she does not view public opinion as resulting from rational discourse among members of society. Blumer (1953, p. 46), for example, defines public as "a group of people (1) who are confronted by an issue, (2) who are divided in their ideas as to how to meet the issue, and (3) who engage in discussion over the issue." For Noelle-Neumann, (1) and (2) are more than enough to define the public.[4]

Blumer (1953), however, did not contend his ideas dogmatically. He argued that although discussion of an issue in public is based on primarily facts and rational arguments, it is difficult to realize these normative characteristics in reality. He noted that public opinion could be either highly emotional and prejudiced or intelligent and thoughtful. Nevertheless, he upheld the notion of rational discussion in the public opinion

[3] For example, when I think of a controversial issue, say gun control, I can imagine people from either pro or con side who would be emotionally involved in the issue. But I can also imagine some people who do not find the issue controversial or some people who have never heard of the issue. Should we include these people in the public opinion process? Or because they do not feel controversy or do not know about the issue, should we exclude them from the public opinion process? I argue that these people should be excluded from the process. If they have no opinion about the issue, it is doubtful that they could be involved in the public opinion process.

[4] As Noelle-Neumann's argument that everyone is involved in the process indicates, if most people in a community are confronted by an issue, whether or not a person in the community is confronted by the issue, he or she becomes involved in the public opinion process. Furthermore, he or she does not need to take an issue position to be in the public opinion process. That is why Blumer's (1) and (2) are more than enough for defining Noelle-Neumann's public.

process because the process of discussion on a controversial topic forces a certain amount of rational consideration and therefore the resulting collective opinion is destined to have a certain rational character (Blumer, 1953, p. 49).

Noelle-Neumann's Public Opinion Process

Noelle-Neumann (1984, pp. 107-114) argues that whenever a person is not free to speak or act in accordance with his or her own inclinations and must consider the views of the social environment to avoid isolation, some manifestation of public opinion is at work. On the other hand, if an individual in the group does not feel a need to survey his or her opinion environment because of the total unity with the group (e.g., active mob), and thus no threat of isolation exists in a situation, the situation does not involve the public opinion process, for all public opinion phenomena should accompany a threat of isolation.

This seemingly simple criterion of the presence of a threat of isolation in distinguishing a public opinion phenomenon from a non-public opinion phenomenon is in fact very ambivalent one when it is applied to a real situation. Noelle-Neumann (1984, pp. 107-114) distinguishes concrete mass from latent mass. When Noelle-Neumann argues about distinctive differences (social-psychological element) between mass eruptions and public opinion, Noelle-Neumann seems to identify concrete mass with mass eruptions and latent mass with public opinion.

Concrete mass is divided into either timeless or time-bound conditions based on how the group strength is organized. Concrete mass in timeless condition is characterized as instinctive and "firm." Timeless concrete mass can typically be described as a crowd

created by "communal anger over transgression of shared moral tradition" (Noelle-Neumann, 1984, p. 112). On the other hand, time-bound concrete mass is facilitated by particular historical conditions. A typical example of time-bound concrete mass is observed in revolutionary periods. Therefore, time-bound mass might be identified with an intensified public opinion phenomenon. Concrete mass is typically represented as primitive, spontaneous, unorganized,[5] and unpredictable with a single purpose of reaching the emotional climax. Individuals in concrete mass experience the feeling of mutuality, the intense excitement, the power, and the loss of a sense of reality.

Noelle-Neumann sees latent mass as completely different from concrete mass. Although Noelle-Neumann does not explicitly identify a latent mass phenomenon with a public opinion phenomenon, a latent mass phenomenon is clearly a closer phenomenon than a concrete mass phenomenon to the public opinion process. Individuals in latent mass form an abstract community based on mutuality of thought and feeling not limited to one place. Noelle-Neumann argues that people in the public opinion process take extreme caution in their actions because spontaneous behavior may cost them dearly such as isolation from other social members. Therefore, while a latent mass phenomenon seems to refer to a normal public opinion process, a time-bound concrete mass phenomenon seems to indicate an intensified public opinion process.

[5] It is not clear what Noelle-Neumann means by an organized group. Although Noelle-Neumann contrasts an organized group with a primitive, spontaneous, unorganized group (e.g., active mob), the organized group refers to concrete mass in which an active mob is a representative example.

Noelle-Neumann's fuzzy distinction[6] between crowd situation and the public opinion process brings about a problematic situation in which two individuals of the same group have different perceptions of the same event because of the differences in their level of consciousness and unity with the group: one in the public opinion process and the other in the spontaneous crowd phenomenon. One logical problem in this description is that people who do not belong to the public opinion process can affect people in the public opinion process. Although a person may feel a total unity with the group, if his or her acts affect other people and, subsequently, the dynamics of the group by increasing fear of isolation among others, he or she inevitably is in Noelle-Neumann's public opinion process.

Although her argument, that people suspend fear of isolation when they are swept up by the crowd, may be accurate for some people, that condition is also where public

[6] Certainly, Noelle-Neumann does not intend this vague distinction because she criticizes scholars who see the connection between "mass eruptions" and "public opinion." Noelle-Neumann believes that there is a clear distinction between the two. Yet, based on her explanations, it is hard to distinguish the two phenomena as distinctive concepts.
Park (1972) offered more distinctive concepts about crowd and public. He stated that individuals in the crowd joined together unconsciously and without any premeditation as a unit. A crowd is always disruptive and revolutionary and seldom arises where there is social stability and where customs have deep roots (p. 47). Park (1972, p. 20) stated, "If the crowd phenomenon coincides with that of social suggestion, then it seems that the crowd must be viewed that as a simple emotional state controlling a number of individuals, a mood whose limits are as difficult to delineate as those of the weather." As he pointed out the presence of psychic reciprocity is the defining characteristic of the crowd; the one teleological goal for this social phenomenon is group unity. Park pointed out that not only does tradition imitated from generation to generation influence people's thought and behavior, but also members of society affect each other through ever-present reflex and sensorimotor suggestions.
Many characteristics of the crowd phenomenon become typical examples of the public opinion process in Noelle-Neumann, except for an extreme situation in which every participant feels a total unity with the group. The "mood" in Park (1972) has a similar connotation with the "climate of opinion" in the spiral of silence process and the concept of ever-present "reflex" and "sensorimotor" suggestions is similar to the "quasi-statistical sense" in the spiral of silence theory.
Noelle-Neumann also includes most characteristics of Park's definition of public in her public opinion process except for rationality. Although Noelle-Neumann acknowledges that there is an element of rationality in the public opinion process, it is hardly a major force in the process. Noelle-Neumann considers that the interpretation of public opinion as the result of rationality is only wishful thinking of some academicians.

opinion becomes a magnificent force.[7] In other words, the certainty of some people who stop monitoring the environment would subsequently increase the necessity of surveying the environment for some other people who have not yet been convinced.

Public Opinion in the Classics

Convinced that people in the past should have noticed the essence of public opinion under whichever different designations such as "unwritten laws," "general opinion," "popular opinion," and "consensus" (Noelle-Neumann, 1995, p. 43), Noelle-Neumann traces the concept of public opinion in the classics. She argues that many great thinkers have observed the same dynamics as the spiral of silence phenomenon (1984, p. 7). The first time the term "public opinion" appeared in printed materials was 1782 in France; in a famous novel, *Les Liaisons Dangereuses*, public opinion referred to a court of judgment in public by an anonymous group of people (Noelle-Neumann, 1984).[8] Acknowledging that public opinion exerts a powerful pressure on people to conform, Montaigne stated that one should behave differently in public and private life. He stated "a wise man ought inwardly to retire his minde from the common presse, and hold the same liberty and power to judge freely of all things, but for outward matters, he ought absolutely to follow the fashions and forme customarily received" (Montaigne, 1910, pp. 117-118).

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[7] Noelle-Neumann acknowledges that public opinion becomes a more powerful force during war or revolutionary times because of intensified fear of isolation among members of society (Noelle-Neumann, 1984, p. 78). At the same time, it is more probable, in those times, to observe the crowd phenomenon, which she tries to exclude from the public opinion process. Strengthened power of public opinion and increase of the crowd phenomenon at the same time is an oxymoron in her view.

[8] Including personal documents, the term "public opinion" first appeared in Cicero's letter to his friend in 50 B.C. (Noelle-Neumann, 1995, p. 40).

Locke distinguished three kinds of laws as governing the world; divine law, civil law, and the law of virtue and vice. The law of virtue and vice was used interchangeably with the law of opinion or of reputation or the law of fashion in his works. Locke argued that the law of opinion is more powerful than any other laws when it prevails.

> The measure of what is everywhere called and esteemed 'virtue' and 'vice' is this approbation or dislike, praise or blame, which, by a secret and tacit consent, establishes itself in the several societies, tribes, and clubs of men in the world; whereby several actions come to find credit or disgrace amongst them, according to the judgment, maxims, or fashions of that place …. But no man escapes the punishment of their censure and dislike, who offends against the fashion and opinion of the company he keeps and would recommend himself to. Nor is there one of ten thousand, who is stiff and insensible enough, to bear up under the constant dislike and condemnation of his own club. He must be of a strange and unusual constitution, who can content himself to live in constant disgrace and disrepute with his own particular society. Solitude many men have sought, and been reconciled to: but nobody that has the least thought or sense of a man about him can live in society under the constant dislike and ill opinion of his familiars and those he converses with. This is a burden too heavy for human sufferance. (Locke, 1852, pp. 236, 239).

Locke argued that the body of opinion is time and place specific. Law of opinions or reputation depends on the current attitudes "of that place." Noelle-Neumann holds that although Locke did not use the term "public opinion," the gist of public opinion as a relative yet powerful force was present in his works.

Peters (1995, p. 9) criticized Noelle-Neumann's interpretation of Locke's "law of opinion" as a predecessor of her own theory of spiral of silence. He treated public opinion as an 18th century invention, contrary to Noelle-Neumann, who has argued that the concept of public opinion has been existed since antiquity (Noelle-Neumann, 1995). Peters explained,

> While Locke may well have spotted a tendency for all humans to adjust public loyalties in deference to perceived pressures from others, he is

> clearly, in historical context, engaged in clearing a new zone of social life-making 'society' off limits to the intervention of other powers. His law of opinion is central to his larger project of creating a social order outside the control of church or state where ideas can be openly discussed. (1995, p. 11)

Similarly, Koselleck (1988) interpreted the main point of Locke's law of opinion as a challenge to the monopoly power of church and state in moral and legal matters. He held that Locke, by proposing an alternative realm of law maintained by a private, social morality beyond the divine and civil law, argued that censure could be administered solely by one's fellows in society. Peters (1995) argued that the notion of public discussion based on the reasoned sanction of one's peers posed a moral authority opposed to the arbitrariness of state edicts or the mystery of churchly rites. That is, private discussion equipped with reason obtained a strong public function that could dispute with state and church.

Noelle-Neumann argues that the fundamental assumptions of the spiral of silence theory can also be found in Madison, Rousseau, and Tocqueville. Madison in the *Federalist* stated,

> if it be true that all governments rest on opinion, it is no less true that the strength of opinion in each individual, and its practical influence on his conduct, depend much on the number which he supposes to have entertained the same opinion. The reason of man, like man himself is timid and cautious, when left alone, and acquires firmness and confidence, in proportion to the number with which it is associated. (Madison, 1961, p. 349).

Rousseau argued that although the state was built on public, criminal, and civil law, the fourth law of manners, morals, customs, and public opinion was most fundamental and influential. Rousseau held that the most important resources for society to protect were customs and traditions that were stable forms of public opinion. Rousseau

stated that "Man, as a social being, is always oriented outward; he first achieved the basic feeling of life through the perception of what others think of him" (Rousseau, 1964, p. 193). Rousseau further said, "Opinion, queen of the world, is not subject to the power of kings; they are themselves her first slaves" (Rousseau, 1960, pp. 73-74). Rousseau understood that while public opinion was the protector of society, it was the enemy of individuality. According to Rousseau, man is split into two beings, one that contains his real nature, his "genuine needs," inclinations, and interests, and the other that shapes itself under the pressure of opinion.

Noelle-Neumann thinks that Tocqueville was the first person to discerningly observe the spiral of silence theory at work (Noelle-Neumann, 1984, pp. 88-89).

> public favor seems as necessary as the air that one breathes, and to be disagreement with the mass is, so to speak, not to live. [The mass] does not need to use the laws to bend those who do not think like it. It is enough for it to disapprove of them. Their sense of isolation and their impotence immediately overwhelms them and drives them to despair. (Tocqueville, 2000, p. 615).

Tocqueville argued that the tyranny of mass opinion was not any better than other kinds of oppressive forces that hinder judgment of the individual.[9] Tocqueville lamented the limitation of democracy, that once triumphed over arbitrary aristocratic or despotic rules. He said, "the evil would have done nothing but change its character. Men would

[9] Tocqueville believed that equality in social conditions leads to the power of public opinion because "as citizens become more equal and alike, the penchant of each to believe blindly a certain man and class diminishes. The disposition to believe the mass is augmented, and more and more it is opinion that leads the world. Not only is common opinion the sole guide that remains for individual reason among democratic peoples; but it has an infinitely greater power among these people than among any other. In times of equality, because of their similarity, men have no faith in one another; but this same similarity gives them an almost unlimited trust in the judgment of the public" (2000, p. 409).
He further argued, "As all men resemble each other more, each feels himself more and more weak in the face of all. Not discovering anything that elevates him very much above them and distinguishes him from them, he distrusts himself when they are at war with him; not only does he doubt his strength, but he comes to doubt his right to it, and he is very near to recognizing that he is wrong when the greater number affirms it. The majority does not need to constrain him; it convinces him" (2000, p. 615).

not have found the means of living independently; they would only have discovered--a difficult thing--a new face for servitude" (2000, p. 410).

Two Views on Public Opinion

While there have been numerous attempts to define public opinion (Childs, 1965), those efforts could be classified under two concepts (Noelle-Neumann, 1974, 1989, p. 6, 1991, p. 280, 1995, p. 34). First, public opinion is interpreted as rationality that is instrumental in the process of opinion formation and decision making in a democracy. MacKinnon (1971), for instance, argued that public opinion represents the views only of the most informed, most intelligent, and most moral persons in a community. People who espouse this belief generally do not trust the opinions entertained by the mass, which they think of as irrational and vulnerable to manipulation.

Second, public opinion is understood as social control by which social integration is facilitated and a sufficient level of consensus among members of society is insured by pressuring them. In this view, all members of society are involved in the formation of public opinion and subjected to the influence of public opinion. Although it is not necessarily so, advocates of this view, including Noelle-Neumann, usually argue that public opinion is not based on rational discussion. Under this view, whether or not average people are less informed, less responsible, and less moral than a privileged group of people in society, they have no less role, right, and stake in the public opinion process.

However, it is questionable whether this contrast of the two concepts is legitimate. First, the second view is descriptive while the rationality view of public opinion (the first view) is normative for the most part. The rationality view of public opinion is in general

not a question of "is" but of "ought," while scholars in the second view are concerned with "is." Although this "ought" view has become more intertwined with the "is" view since the 18th century, no contemporary scholars seem to believe that public opinion is formed solely by rationality whereas they may think it should. Even when scholars adopt the rationality view in describing reality, they talk about approximation, not perfection, of rationality in the public opinion process. Furthermore, they tend to focus on rationality in the public opinion process rather than rationality as an outcome of the public opinion process. For example, Noelle-Neumann argues that in the first view, the best argument always wins (Noelle-Neumann, 1995, p. 43). Supporters of the first view do not profess that the best argument always wins. Rather, they argue that it should and it is more likely to happen in a democracy where the rationality of the public opinion process is ensured.

Therefore, in my view, these two seemingly contrasting views are not conflicting. A person's definition of public opinion is determined by what point he or she thinks should be emphasized in the discussion of public opinion.

The Spiral of Silence Theory Explained

Assumptions of the spiral of silence process

Noelle-Neumann (1984, p. 58) deplores the fact that serious progress has not been made in refining the term "public opinion" despite an enormous amount of research effort on the topic. She proposes her own interpretations of the social phenomenon called "public opinion." In her own writings, public opinion has been defined as:

- *opinions that one can voice in public without fear of sanction (1973, p. 91);*
- *opinions that can be voiced in public without fear of sanctions and upon which action in public can be based (1974, p. 44);*
- *controversial opinions that one is able to express in public without becoming isolated (1977, p. 145);*
- *those opinions in the sphere of controversy that one can express in public without isolating oneself (1979, p. 150);*
- *opinions and modes of behavior in value-laden areas that can be publicly expressed or demonstrated with the expectation that they will meet with approval or that there is no danger of thereby isolating oneself (1989, p. 8);*
- *A process that takes place continuously in public, that is based on humans' social nature, and that ensures the formation and maintenance of consensus in value-laden areas…In operational terms,…an opinion in value-laden areas that can be voiced in public without fear of sanctions and upon which actions can be based in public (1991, pp. 282-283).*

Although it may seem obvious, it is important to distinguish a public opinion from a process of forming a public opinion because much confusion derives from mixing these two concepts. For Noelle-Neumann, while a public opinion indicates a particular issue position, a process of forming a public opinion indicates a phenomenon, in general, of how a particular issue position gains and loses its popularity and weight in public. For instance, if the majority of U.S. people are perceived to support capital punishment, currently the public opinion on this issue is the view of favoring capital punishment. In other words, it is possible to assert whether a public opinion about a certain issue is an

opposing or assenting view at the particular time and place except in a situation where two contrasting views are perceived to have the same amount of support. On the other hand, when the public opinion process is discussed, a particular issue position is not a matter of concern.[10]

Although these two concepts in Noelle-Neumann are closely related, they are not identical. When Noelle-Neumann argues that public opinion is time and place specific, it means that a particular view tends to prevail in a certain time and place (definition of public opinion). On the other hand, she argues that the public opinion process explained in the spiral of silence process is fundamentally the same phenomenon everywhere and anytime in history (her opinion of how public opinion is formed). Noelle-Neumann elaborates the assumptions of the spiral of silence process as universal:

(1) Society threatens deviant individuals with isolation.

(2) Individuals experience fear of isolation continuously.

(3) This fear of isolation causes individuals to try to assess the climate of opinion at all times.

[10] When Noelle-Neumann asserts that public opinion is a process, it means that public opinion is formed through various psychological and social dynamics in time. Based on this argument, she criticizes scholars who have looked upon public opinion as a state rather than as a process. However, her criticism is somewhat unfair because it is almost impossible to imagine anyone who denies the fact that even simple polling data is in part the result of a process of discussion, manipulation, or deliberation. What is formed through this process could be identified as public opinion as a state-entity at the given moment. Therefore, one could say that some views about public opinion such as polling data are more focused on the end result of the process while Noelle-Neumann's spiral of silence theory is more focused on the process itself. Noelle-Neumann (1991, p. 283) states that while she understands public opinion as a process, public opinion as a particular issue position at a given moment is an operational definition. Glynn, Ostman, and McDonald (1995) contrasted some public opinion perspectives and frameworks that see public opinion as a process (spiral of silence, impersonal impact/unrealistic optimism, and third-person effect) with other public opinion perspectives and frameworks that focus on the end results of specific aspects of public opinion (pluralistic ignorance, false consensus, and looking glass perception).

(4) The results of this estimate affect behavior in public, especially the open expression or concealment of opinions.

(5) Taken together, they [four assumptions above] are considered responsible for the formation, defense, and alteration of public opinion (Noelle-Neumann, 1991, p. 260).

Hardcores

Along with these assumptions, she states that there is a group of people called hardcores, avant-garde, heretics, or outsiders, who do not fear isolation or are willing to pay its price (Noelle-Neumann, 1984, p. 139). Although there are some differences among these groups of people who do not succumb to fear of isolation, the discussion from now on will be focused on "hardcores." Noelle-Neumann describes hardcores as those who "are not prepared to conform, to change their opinions, or even to be silent in the face of public opinion. (1974, pp. 48-49)…. [They] have been overpowered and relegated to a completely defensive position in public as regards its convictions. The behavior of this minority in public is hardly susceptible to the threat of isolation or ruled by fear of isolation anymore. The hard-core minority is, in fact, often especially willing to speak out." (Noelle-Neumann, 1991, p. 274).

The concept of hardcores in the spiral of silence process is particularly important because without them, public opinion would stay the same (Noelle-Neumann, 1991, p. 274). In their election study, Glynn and McLeod (1985) operationalized hardcores as those who had been consistent on their voting intention over extended time. They found that hardcores tended to have higher political interest and stronger partisanship, although

they have less political knowledge and education than non-hardcores. Hardcores also tended to be older than the rest of the population. The study reported that hardcores were more likely involved in campaign discussion and yet their voting intentions were less likely to be influenced by the discussion. Hardcores put more importance on issue stances and personal qualities of a candidate than other criteria.

Noelle-Neumann (1991), however, criticizes Glynn and McLeod's operationalization of hardcores because the consistency of one's voting intention is not a necessary condition of hardcores. Rather, the most important characteristic of hardcores is that they should be willing to express their opinion even when they perceive their view is a minority view or losing ground. Noelle-Neumann states that Glynn and McLeod's operationalization of hardcores did not allow for the distinction of this defining characteristic of hardcores.

A diagram is proposed to explain the dynamics of the spiral of silence process, focusing on the concept of hardcores (Figure 1). Three types of people are identified: hardcores and two kinds of non-hardcores depending on the congruence between their private opinion and public manifestation. While some people will fall silent or show public support for a perceived majority opinion even when they do not agree with it privately (non-hardcores 1), there are other non-hardcores who come to change their internal opinions in accordance with the perceived majority view (non-hardcores 2). A situation is hypothesized in Figure 1 as two opposing camps have similar amount of support. Each camp has a small fraction of hardcores who would defend their view in any adverse public situations. The most likely category change within the same camp will be

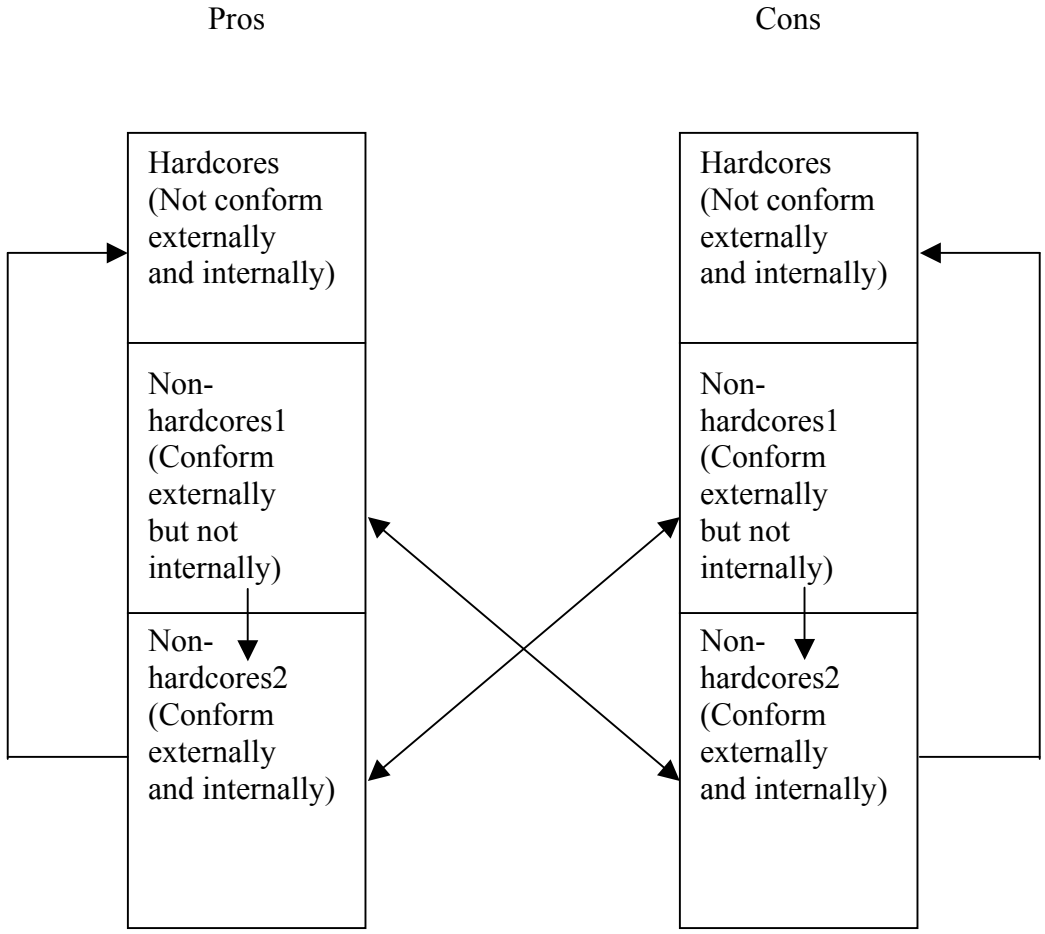

Figure 1. Dynamics in the Spiral of Silence Theory.

found from non-hardcores 1 to non-hardcores 2 when the adverse situation continues.[11] Of course, if a perceived majority opinion becomes congruent with a person's personal opinion, he or she will become a non-hardcores 2 in the opposite camp. It is not likely that a hardcore in the one camp directly changes to a hardcore in the opposite camp.[12] Some people in non-hardcores 2 could become hardcores when the same situation persists for a long time. More likely, however, people in non-hardcores 2 will go back and forth with non-hardcores 1 in the opposite camp based on their perception of the perceived majority opinion. When the equilibrium in Figure 1 is disrupted (e.g., in a revolutionary time), the various category changes I explained above will occur concurrently, making the public opinion process dynamic.

Empirical Examination of the Spiral of Silence Theory

Noelle-Neumann (1984, pp. 7-8) is sure that a social-psychological phenomenon such as the spiral of silence process can and should be tested empirically. Her initial theoretical development has been based on extensive field surveys on German federal elections and various social issues. Following studies by other scholars, in general, have focused on the examination of the main thesis of the spiral of silence theory: the relationship between people's perception of the opinion climate and their willingness to speak out. However, as Noelle-Neumann criticizes the oversimplification of the theory, this relationship is only a small part of the theory.

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[11] Note that because figure 1 is drawn based on people's public behavior, non-hardcores 1 in the pro-side refers to people who are opposed to the pro-view privately.

[12] It is imaginable that a hardcore in the one camp becomes a hardcore in the opposite camp through a crucial experience. Furthermore, it is also possible that a hardcore becomes a non-hardcore in the same camp. However, because these changes seem very few, they are not indicated in the diagram.

Demographic Differences

A majority of studies have reported the effect of demographic factors (Lasorsa, 1991; Noelle-Neumann, 1974). Older people were less willing to speak out their views in the incongruent opinion climate. As people become older, they might learn more social norms and tend to behave according to the norms as compared to their younger counterparts. On the other hand, studies on conformity revealed that children consistently showed more conformity to the group norms than adult subjects (Berg & Bass, 1961). Therefore, it could also be argued that as people get older, they might acquire more strength and confidence to resist group norms with which they do not agree. Or simply younger adults who are more rebellious than people in other age groups may cause conflicting results. Concerning the gender component, males were more willing to express their opinions than females (Neuwirth, 1995). Also, higher education and income levels were positively related with people's willingness to speak out. Those with higher political interest and social status tend to speak out more than others.

Issue Characteristics

Noelle-Neumann argues that certain situations and topics are more likely than others to result in a spiral of silence. She (1989, pp. 8, 12) states that an issue should be controversial, emotionally charged, morally loaded, and "fluid" to generate a threat of isolation. Members of society should have a collective desire to reach a consensus for an issue to be morally loaded (Noelle-Neumann, 1993, pp. 153, 229-232). Salwen, Lin, and Matera (1994) compared the spiral of silence phenomenon when a controversial issue was morally loaded and the same issue was not non-morally loaded in different

communities. They found that people in the incongruent opinion climate were more likely to be silent when the issue was morally loaded in a community.

Nevertheless, few studies have examined how the level of these prerequisites of a topic mediates people's outspokenness. Although Perry and Gonzenbach (1997) asked subjects to estimate the controversy level of the school prayer issue, their inquiry of the concept did not go beyond whether or not the issue was appropriately controversial for studying the spiral of silence process. According to the spiral of silence theory, controversy of an issue affects the amount of fear of isolation perceived in a person and, subsequently, his or her outspokenness.

Perceived personal and societal importance of an issue has been investigated in relation to people's willingness to speak out. Lasorsa (1991) found that the obtrusiveness[13] of an issue did not affect a person's political outspokenness. In other words, the spiral of silence process was observed whether a subject perceived the issue as obtrusive or not. Scheufele (1999) also found that issue salience did not affect "political talk" on the issue of nicotine as a drug. Salmon and Neuwirth (1990), however, found that personal concern about (or involvement with) the issue of abortion was positively related with two forms of public expression: people were more willing to be interviewed by a television reporter and to talk with a stranger about abortion when they were more concerned about the issue. The perceived level of concern about the issue among members of a community (local and national) was also positively related to willingness to speak out, but less significantly as compared to personal concern about the issue (Salmon

[13] Obtrusive issues are the ones that directly impact on a person's life. Obtrusiveness was measured with a question, "how much are you yourself directly involved with this issue---how much are you, personally, experiencing the real-life impact of this issue: very much, somewhat, a little, or not at all?" (Lasorsa, 1991).

& Neuwirth, 1990). Willnat (1996) found that on the issue of political reform in Hong Kong, the effect of opinion congruence on people's outspokenness depends on their perceived issue importance.

Although the results of this assemblage of studies, which examined the level of importance of an issue either personally or societally, look conflicting, one should be cautious in interpreting them because the concepts of obtrusiveness, concern, and importance of an issue are not identical notions among different scholars. Furthermore, it was possible that a particular topic in each study mediated the relationship between issue importance and willingness to speak out.

Salmon and Neuwirth (1990) found that perceived issue knowledge was positively related to willingness to speak out. Similar results were reported in other studies too (Kim, 1999; Neuwirth & Sanchez, 1984; Scheufele, 1999; Shamir, 1997; Willnat, 1996). That is, if a person perceived him/herself as knowledgeable about the issue, regardless of the amount of his or her objective knowledge about the issue, the person was more likely to speak out.

Opinion Congruence and Willingness to Speak Out

In the original conceptualization of the theory, the national opinion climate was the major concern, particularly because Noelle-Neumann's earlier studies were focused on German federal elections. In fact, it is the opinion climate among the general public, usually national opinion climate, that makes a spiral of silence phenomenon a theory of public opinion. Glynn, Hayes, and Shanahan (1997) reported in their meta-analysis that opinion congruencies in both the present and the future are positively but weakly

correlated with willingness to speak out. In a later meta-analysis, Kim (2000) found that willingness to speak out was more closely related to the future opinion congruence than the current opinion congruence.

Noelle-Neumann emphasizes significance of the role of mass media, especially television, in the public opinion process. She argues that without taking into account the influence of mass media, the analysis of the spiral of silence phenomenon is incomplete because mass media exposure consists of one of the two sources for the perception of the opinion climate, along with interpersonal observations (Noelle-Neumann, 1989, p. 28). Noelle-Neumann points out three characteristics of mass media that make them so powerful in modern times. First, the content of mass media is largely uniform among many channels and media types because of the common liberal values that a majority of journalists espouse (consonance). Second, the effect of these similar messages is cumulative (cumulation). Third, mass media are so ubiquitous that no one can escape from their influence (ubiquity). Noelle-Neumann contends that it is impossible to investigate the whole theory in a laboratory environment because the influence of mass media is materialized over a long period of time. She recommends using field research and content analysis together.

Not many studies have examined the relationship between the dominant media opinion climate[14] and willingness to speak out. Salwan, Lin, and Matera (1994) found

[14] Noelle-Neumann emphasizes the factual data obtained from content analysis of mass media. It is not clear why Noelle-Neumann emphasizes "actual opinion distribution" of mass media rather than "perceived opinion distribution" of mass media as she does "perceived majority view" over "actual majority view" in her conceptual formulation of the theory. To be more consistent with the thesis of the spiral of silence theory, people's perception of the dominant mass media opinion should be the focus of the examination rather than the objective content analysis of the mass media. People use different media forms and channels for getting their political information that make the uniform content analysis less meaningful. Furthermore,

that people were more willing to speak out when the perceived media opinion climate was congruent with their own opinion. Noelle-Neumann identifies the dual spiral of silence when the perceived majority view in public is at variance with the tenor of the mass media. In the dual spiral of silence, she argues that the opinion supported by the mass media is more likely to determine people's public behavior and opinion on the issue.

A person's outspokenness is measured by how much the person is willing or unwilling to speak out on a given issue in various hypothetical public situations. Noelle-Neumann argues that the means of public expression includes non-verbal communications such as writing or behavioral expressions as well as oral expressions (1984, p. 22). Common examples are wearing a campaign button, putting a bumper sticker on a car, entering a discussion during a social gathering, and being interviewed by a TV reporter.

Some examples such as donating money (Taylor, 1982) were considered inappropriate by Noelle-Neumann because of their lack of publicness. Noelle-Neumann argues that the more a situation is public, the less people are willing to express their opinions when there is opinion incongruence, for a higher level of publicness implies a higher level of threat of isolation.

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it is people's perception of the opinion climate of the media rather than the objective media coverage itself that works as an antecedent of their public behavior according to the theory.

Criticisms of the Spiral of Silence Theory

Fear of Isolation

While the theory has been supported by many empirical research findings and praised for its creative contributions to the field, it is not short of criticism. A fundamental criticism is derived from skepticism on the first building block of the theory; the assumption that most people, except a small number of hardcores, live in a constant fear of isolation. This fear is supposed to drive people to scan their environment to assess the opinion climate in order to avoid social isolation. Some researchers, however, have questioned the concept of fear of isolation (Price & Allen, 1990; Salmon & Kline, 1985; Salmon & Oshagan, 1990).

For instance, some scholars suggest that positive sanctions, such as social approval or personal benefits of issue resolution, can be more important than fear of isolation in motivating people to speak out (Kim, 1999; Glynn & McLeod, 1985; Price & Allen, 1990; Salmon & Kline, 1985; Taylor, 1982). Although Noelle-Neumann recognizes a possibility of a positive sanction as an antecedent of conformity behavior, she argues that only an ambitious person can be motivated by a positive sanction (1985, p. 70). Unfortunately, she has not elaborated the notion of an ambitious person and the possible relationship between an ambitious person and a hardcore. In any case, she believes that only a small fraction of the population is ambitious, and thus most people still behave according to the rules of the spiral of silence theory.

Noelle-Neumann conceives fear of isolation as a constant in which every human has a fear of isolation intrinsically and perpetually. It is not subject to the change of an

external environment whether it is cultural or situational.[15] Some researchers, however, argued that fear of isolation should be considered as a variable rather than as a constant. These researchers called for establishing a reliable and valid index of fear of isolation when investigating predictors of opinion expression (e.g., Glynn & McLeod, 1985). They do not dispute the idea that most, if not all, people have a fear of isolation; they disagree with Noelle-Neumann in their belief that for most people, this fear is not a primary determinant of behavior.

Specifically, Salmon and Oshagan (1990) suggested that fear of confrontation might be a more commanding predictor of voicing opinion than fear of isolation. Neuwirth and Frederick (2000) also found that conflict avoidance rather than fear of isolation was more strongly related to a person's open discussion behavior. Salmon and Neuwirth (1990) contended that being silent in public discussion might be the result of a fear of appearing ignorant. In a comparative study among Americans, Israeli Jews, and Israeli Arabs, Wyatt, Katz, Levinsohn, and Al-Haj (1994) discovered that the primary reason for opinion inhibition in discussion was fear of hurting others.

Glynn and Park (1997) observed critically that past studies, including Noelle-Neumann's, did not differentiate fear of isolation from threat of isolation. While fear of isolation indicates a state of mind, threat of isolation refers to situational factors that might induce fear of isolation. Therefore, although it is not necessary, fear of isolation is likely to be related positively to threat of isolation. Noelle-Neumann states that the spiral of silence phenomenon is more noticeable in war or revolutionary times because fear of

[15] Although Noelle-Neumann acknowledges that various factors mediate a person's fear of isolation, she argues that fear of isolation is a universal human nature that should be found in any culture as a determining antecedent of a person's behavior and opinion-formation in the public opinion process.

isolation increases in those times; more accurately, however, it is a threat of isolation that increases in those times and, subsequently, fear of isolation is likely to increase too.

Neuwirth and Frederick (2000) understood fear of isolation as a "psychological variable representing a negative emotional state." They argued that fear of isolation is based on transitory mental conditions or states that determines a person's communicative behavior. They suggested to conceptually distinguish three sources of fear of isolation (trait, issue-based, and state). Trait-based fear of isolation indicates people's expectations about likely outcomes derived from their past history of interactions; issue-based fear of isolation is defined as fear accompanied by the controversy of the issue itself; state-based fear of isolation[16] imports fear caused by immediate situational factors (p. 4). They argued that their three-prong measurement of fear of isolation outperformed the original measurement of fear of isolation.

Quasi-statistical Sense

Another fundamental criticism of the spiral of silence theory is directed to Noelle-Neumann's assumption of a "quasi-statistical sense." According to her argument, humans can perceive the opinion distribution from interpersonal and mass media observations using their innate quasi-statistical ability. It was evidenced, she argued, that study participants did not hesitate to estimate the relative strength of a particular opinion (Noelle-Neumann, 1989, p. 28).

[16] State-based fear of isolation appears to be a similar concept to threat of isolation in Glynn and Park (1997). Because fear of isolation implies a subjective feeling felt in a person, state-based fear of isolation seems to be a misnomer of external factors that engender fear of isolation in the person.

Some critics challenged her assumption of quasi-statistical sense by arguing that people were not good in estimating the opinion distribution (Donsbach & Stevenson, 1984; Sun, 1992). Grounded on the theory of "looking glass perception," Fields and Schuman (1976) argued that people tended to perceive the opinion distribution skewed towards the opinion they supported rather than to assess the opinion distribution objectively. Salmon and Kline (1985) suggested that people project their own opinions onto the majority of people. Taylor's argument against the quasi-statistical sense (1982) was based on the theory of pluralistic ignorance (see also O'Gorman, 1975). According to the theory of pluralistic ignorance, people's estimation of the opinion distribution is, in general, inaccurate. Kennamer (1990) also argued that people overestimate the prevalence of their own issue position (self-serving biases).[17] Although Noelle-Neumann observes the self-serving biases in her own data, she argues that the biases only appear when the issue becomes greatly polarized.

Noelle-Neumann refutes these criticisms on the basis that the accuracy of people's estimation of the opinion distribution is not what the quasi-statistical sense is about (Noelle-Neumann, 1985; Taylor, 1982). She argues that the important thing about the assumption is that people can estimate the opinion distribution of an issue, whether their perception is objectively right or wrong,[18] and factor it in determining their opinion and behavior on the issue. Nevertheless, Noelle-Neumann contends that people have an

[17] Noelle-Neumann urges researchers to study the spiral of silence theory in relating to other competing theories that are presented in this paragraph for instance.

[18] Although "real" objective opinion distribution cannot be known, the objective opinion distribution in this study refers to polling data. Noelle-Neumann (1974, p. 45) refers to this objective opinion as the "actual opinion distribution" as contrasting to personal assessment of the opinion distribution. Ironically, Noelle-Neumann does not consider polling data as a source of information that a person uses in perceiving the opinion environment. Glynn and McLeod (1985) argued that polling data should be included as a source of information that people use in forming their perception of the opinion distribution.

ability to perceive collectively ups and downs of a particular view of an issue (1984, p. 19). In other words, Noelle-Neumann holds that there is an opinion atmosphere, independent from the objective opinion distribution, that people perceive as the objective opinion distribution. People's perception may be consistent with the objective data obtained from people (e.g., polling data) or may not be. Noelle-Neumann argues that the discrepancy between them makes little difference in the spiral of silence theory because people are only concerned about the opinion atmosphere.

While the quasi-statistical sense does not contend that people can precisely assess the actual opinion distribution, it indicates that people's collective perception on a controversial topic is astonishingly exact. Therefore, while the difference between people's estimation and the objective opinion distribution cannot be a valid counter-argument against the quasi-statistical sense, if people cannot read the opinion distribution concurrently, it would be a rightful counter-argument for her assumption of the quasi-statistical sense.

Noelle-Neumann refutes the projection hypothesis on the grounds that while people rarely change their own opinions on issues, their estimation of other people's views changes more drastically. That is, if a person's opinion influences his or her perception of others, as the projection hypothesis suggests, his or her own issue position and the estimation of the majority opinion should be paralleled. She also points out that supporters and opponents of an issue perceived this fluctuation of the opinion distribution in the same way.

In a discussion of issue polarization, Noelle-Neumann argues that the more acute a controversy becomes, the more adherents of opposing camps exaggerate the estimate of

their own viewpoint because of the impairment of the quasi-statistical sense[19] (Noelle-Neumann, 1977, pp. 144 (footnote 2), 155-156, 1989, p. 26). She further argues that issue polarization occurs because the majority of people in the opposite view avoid each other and estimate the opinion distribution based on different social circles.[20]

Reference Groups and Primary Groups

Some scholars pointed out that the spiral of silence theory neglected the importance of reference groups and primary groups that mediate the effects of a larger society (Glynn & McLeod, 1985; Lasorsa, 1991, p. 132 (note 2); Salmon & Kline, 1985; Salmon & Neuwirth, 1990). General research findings on social influence ascertained that primary groups had greater effects on a person's behavior and opinion than anonymous groups of people (Kaplan, 1968; Siegel & Siegel, 1957). Merten (1985) argued that in real life, people tend to rely more on their primary groups than anonymous groups of people or mass media. Furthermore, because people rely on different reference groups for different social issues (Walsh, Ferrel, & Tolone, 1976), the assumption of the indiscriminative influence of the general public becomes shaky. Charters and Newcomb (1958) contended that a diffuse social majority became influential when reference group norms were absent or unclear for a particular topic. Although Noelle-Neumann

[19] The spiral of silence theory itself does not explain why impairment of one's quasi-statistical sense results in overestimation of one's viewpoint because the person can either overestimate or underestimate the strength of his of her viewpoint. Other theories such as self-serving biases could explain this one-directional consequence (overestimation) of impairment of the quasi-statistical sense.

[20] Noelle-Neumann argues that the exact reflection of the actual opinion distribution is not a relevant issue in a discussion of quasi-statistical sense. According to this rationale, people's exaggerated estimation of their own view based on their limited social circles, in which people in those circles generally are skewed to one particular view they support, should be another evidence of people's accurate quasi-statistical sense rather than a result of its impairment.

mentioned the role of primary groups on people's opinion formation (1985), its systematic inclusion into the spiral of silence theory has not been attempted.

Generalizability of the Spiral of Silence Theory

Some people argue that the spiral of silence phenomenon may be unique to post-war West Germany where the theory was originated, doubting the generalization of the theory into other countries and cultures.[21] These critics have reservations about the three characteristics of the mass media that Noelle-Neumann delineated: consonance, cumulation, and ubiquity. In particular, the consonance characteristic has been challenged and criticized. Glynn and McLeod (1984) argued that while this assumption about mass media might be true in West Germany, it is also possible to imagine a more pluralistic society that has mass media without strong political biases. Specifically, they contended that the mass media in the U.S. is more pluralistic than Noelle-Neumann describes in her theory. Salmon and Kline (1985) also suggested that the outlets and the contents of the U.S. mass media are diverse, not as monolithic as Noelle-Neumann indicates, because different social groups, not just left-wing journalists, vie for media channels and media power. In fact, some scholars criticize the mass media for the exact opposite reason for which Noelle-Neumann disapproves of the mass media although they share the powerful mass society theory. For example, Chomsky (1997) argued that the mass media in the

[21] The theory has been tested on various topics in many countries, such as the United States, Germany, Great Britain, the Philippines, South Korea, Japan, Taiwan, and Mexico. The results have been mixed. The mixed results in different circumstances are somewhat inevitable because of the innate characteristics of the theory. The core concepts of the theory are society-specific and deal with time-sensitive information. The theory stipulates that 1) the issue in question should be controversial and 2) powerful mass media in society can manipulate the direction of public discussion. The level of controversy of a certain topic and the mass media environment in society are different from society to society and these conditions are constantly changing.

U.S. is too conservative due to the symbiotic relationship between the media and corporations.

Comparison with Asch's Study

Noelle-Neumann uses Asch's research (1951) on conformity to shore up the tenets of the spiral of silence theory. However, some scholars point out that this comparison is a wrong analogy because there are essential differences between the Asch study and the spiral of silence theory. In Asch's experiment, subjects were faced with unambiguous stimuli about the line length while subjects in the study of the spiral of silence theory were asked about their opinions on a controversial issue that was inherently ambiguous. Second, subjects in Asch's experiment were forced to make their judgments on the spot and only allowed to say a yes or no answer. A naïve subject[22] in the experiment did not have a chance to reflect his or her opinion nor to review other participants' rationale for their judgments. In the public opinion process, people have a chance to review others' opinions in most cases. Third, the group pressure was face-to-face in most of Asch's experiments while it was hypothetical in the studies of the spiral of silence theory. Finally, while Noelle-Neumann emphasizes the cumulative effect of the spiral of silence phenomenon, Asch's experiment was conducted as a one-shot study to generate an immediate response from the subject.

Glynn and McLeod (1985) argued that the Sherif experiment (1936) was more comparable to the process explained in the spiral of silence phenomenon. In Sherif's

[22] Except for a naïve subject in the experiment, all other participants were research confederates who answered pre-determined yes or no answers to influence the naïve subject.

autokinetic experiment, subjects were shown a point of light in a dark room. They were asked to estimate the movement of the light that was in fact stationary and to speak out their estimations to be heard by other subjects in the room. Their estimation gradually moderated towards the middle-of-the-road estimation.

Election and the Spiral of Silence Theory

The spiral of silence theory holds that some people, most people if the situation persists, will eventually change their opinions in accordance with the perceived majority opinion (Noelle-Neumann, 1989, p. 10). Opinion change in the spiral of silence process has been difficult to prove because it occurs gradually and is caused by one's unobservable and often unconscious psychological motive. In this sense, election has been an excellent topic because the election situation forces people to decide one way or another before a specific date. Noelle-Neumann was able to show this opinion conversion occurred in the last minutes of the German federal elections.

Nevertheless, the spiral of silence theory seems to be better applied to other general topics in communication studies rather than to election studies because voting is eventually a private behavior while Noelle-Neumann's public opinion process is primarily concerned about public behavior (Salmon & Kline, 1985). Thus, a solely public communicative behavior, such as a face-to-face discussion, would be a more appropriate example of the process than voting.[23]

[23] In fact, Noelle-Neumann (1985, p. 68) suggests that it is desirable to draw a clear line between the spiral of silence theory's application to election research and to communication research.

Survey Method and Ecological Fallacy

The validity of the dependent variable of the spiral of silence theory was questioned as to how much self-reported willingness to speak out in a hypothetical situation can be viewed as a reliable indicator of a person's actual behavior in a real situation. Furthermore, Peters (1995, p. 20) pointed out the limitation of the survey method in public opinion research because different opinions are expressed in public and private life. He contended that the context and audience determine the kind of communication the individual chooses in public. Therefore, the survey method in which anonymity is guaranteed is destined to fail to capture a public element. He held that public utterance and anonymous expression in the survey are fundamentally different behaviors. He argued that the survey method on public opinion research removes the meaning of public from the research although pollsters collect data from "the people."

Glynn and McLeod (1985) pointed out an ecological fallacy in Noelle-Neumann's interpretation of her data because she conjectured individual changes based on the aggregated survey data. If only a few people change their inner convictions while the majority of people remain silent in public without changing their opinions, the capacity of the spiral of silence theory would be limited to the superficial behavioral modification in public.[24] For example, suppose that the number of supporters in the two political parties is objectively the same. In an actual election, if two percent of the voting population changes the party they support to the perceived majority party, supposing the perceived

[24] McLeod, Pan, and Rucinski (1995, p. 74) observed that it was not clear in the spiral of silence theory whether people who belong to a minority opinion remain silent in public without changing their opinions or internalize a majority opinion. However, as in the example of voting which is not publicly observable, the spiral of silence theory stipulates that over time the internal conversion of one's opinion occurs. Therefore, the spiral of silence theory is not just about the silence of a perceived minority group, but also about the internal opinion change facilitated by the silence of the perceived minority group.

majority party is the same among them, the party will win the election by a four percent margin. In other words, 98 percent of the voting population has not changed its opinions in the actual election. In this scenario, it would be preposterous to generalize the phenomenon derived from only two percent of the population to the general population. Price and Allen (1990) renounced the spiral of silence theory as a small group theory that is not applicable in a societal level. They held that the theory is too narrow in focus to explain a complex social process such as public opinion.

Hardcore and Minority Influence

Moscovici (1976) criticized a social model in which social influence, as social control to maintain status quo, is almost synonymous with normative pressure and conformity. He argued that if normative pressure and conformity is the only mechanism of social influence, social norms would be unchanged and a society would be unable to adapt and survive in a new environment. Moscovici (1976) held that a social system could be understood better through a model in which social norms are in constant change and minorities are core forces in pushing a society forward by inserting new ideas constantly. Although the spiral of silence theory is mainly based on the social model that Moscovici criticized, by introducing the dynamic nature of the public opinion process and the concept of the hardcore as a catalyst of change, the spiral of silence theory overcomes what Moscovici viewed as a fatal flaw of a social model of normative pressure and conformity.

The major difference between Moscovici's and Noelle-Neumann's ideas, however, is that while the hardcore carries out a distantly supporting role in the spiral of

silence process, minority influence plays a major role in Moscoisi's idea. Furthermore, Moscovici distinguished the quality of change facilitated by majority and minority influence. He argued that consistent counter-argument from the minority against the norm or majority view could engender uncertainty in people's minds. Unlike the majority influence that is based on normative pressure, the minority influence is more likely to cause internalization in people's minds because the minority influence is primarily informational (see also Kelman, 1961). On the other hand, Noelle-Neumann is reluctant to place value judgment between majority and minority influence. Nevertheless, Noelle-Neumann views minority influence by hardcores with a weary eye while she sees majority influence as a positive force in keeping a society from falling apart.

She made clear in the anecdote in her book's introduction (1984) that it was the majority of people who "conform" to the perceived majority opinion to keep traditions and institutions alive, not a small number of hardcores. In that tale, it was not the poet, who started a new trend, to keep a community together, but the count and the countess and the townspeople who follow the trend out of vanity and insecurity. Accordingly, the spiral of silence theory pays little attention to the importance of just activists for improving society. It is not saying that Noelle-Neumann denies the causes of "just" activists and possible benefits of their activities in society because she points out that good, such as innovation, might come from their roles. However, her concept of hardcores does not even distinguish progressive social activists from hate-group activists. In Noelle-Neumann, hardcores are mainly viewed as a dangerous force destroying social values and disturbing the integration of society.

Ramification of the Spiral of Silence Theory

While Noelle-Neumann's presentation of the classics for supporting her theory is convincing, the analogy of traditional wisdom or authority to the current social phenomenon needs a careful reading. The assertions of famous scholars do not guarantee the truth. For example, when Montaigne stated that "a wise man ought … ought absolutely to follow the fashions and forme customarily received" (1910, pp. 117-118), it seems to me that he described a coward.

Noelle-Neumann downplays the danger of prejudice and stereotyping in her conceptualization of the spiral of silence theory. The spiral of silence theory assigns normality to a phenomenon that may well be prejudiced and potentially violent. There are various kinds of prejudice and social isolation as a form of punishment in many societies, probably in all societies, such as *ijime* in Japan and a similar phenomenon, *wangtta*, in Korea (a form of social isolation inflicted on an unpopular person by the majority of people, especially prevalent in schools). Nazi Germany provided a vivid example of how ugly prejudice can be. If the picture drawn by the spiral of silence theory is granted as the result of unavoidable human nature, it is hard to find a ground to criticize any prejudiced and violent activities of the majority inflicted on the minority.

Furthermore, while integration and survival of a society seem to be a benign purpose of public opinion by themselves, when they are at variance with another society's integration and survival, the resolution of the conflict becomes problematic. Under the spiral of silence theory, when two societies' or communities' survival is perceived to be on the line and the one (or each) feels the other as a threat, the clash of the two social forces formed through the spiral of silence in each society, as to what

should be done about the conflict, will resolve (or complicate) the situation. According to the spiral of silence theory, a "strong" society or group that can mobilize one voice through powerful mass media, no matter how irrational and unfair the unified voice might be to the other party, will win the conflict, unfortunately, often through violence.

The Concept of Self-Construal

The Origin of the Concept

The conceptual origin of the independent and interdependent self-construal is the individualism/collectivism construct (IC). IC refers to social connectedness among individuals and the collectivity of a given society. According to Hofstede (1980), the relationship between individuals and their collectivity in society defines social norms and influence on individual mentality and behavior as well as on the structure and functioning of institutions.

More specifically, individualism is defined as a social pattern consisting of loosely connected individuals who consider themselves as independent of the group they belong to. These people are primarily motivated by their own preferences, needs, rights, and the contracts they have formed with others. People in individualistic cultures stress their personal goals over the group goals and give emphasis to rational analyses of the advantages and disadvantages to associating with others (Triandis, 1995).

On the other hand, collectivism is defined as a social pattern that consists of closely connected individuals who consider themselves as parts of various groups they belong to, such as family, tribe, race, or nation. People in collectivistic cultures are primarily motivated by the norms of, and duties imposed by their affiliated groups. These

people underscore group goals over their personal goals and emphasize their connectedness to members of the groups they are associated with.

IC has been an extremely successful construct to expound the concept of culture by clarifying cultural differences of social behaviors. Hui and Yee (1994) reported that about one third of recently published cross-cultural studies had cited the IC construct in explaining cultural differences observed in their studies.

Although the IC construct has been developed and used for explaining cultural differences, it has a potential capacity to illustrate individual differences. In fact, some researchers have used the IC construct to examine individual differences within a culture. However, when a study investigates individual differences, the direct application of IC appears inappropriate because of the origin and the perspective of IC as a cultural construct. More specifically, Kashima (1989) contended that cultural-level explanation could not serve as a proper variable to test causal explanations of individual-level behavior because culture could not be controlled in an experiment. Kagitcibasi (1994) argued that researchers needed to separate a psychological process that links culture to individual-level behavior from cultural collectivity in order to explain individual behavior and to test causal relationships between an individual's values and his or her behavior.

Triandis, Leung, Villareal, and Clark (1985) proposed that the idiocentric versus allocentric orientation is a comparable construct to IC for studying individual differences. They summarized that idiocentrism is positively correlated with emphasis of achievement while allocentrism is positively correlated with social support and low levels of alienation. Although Triandis (1995) noted that there are idiocentric and allocentric people around the world, he contended that in a statistical sense idiocentric people are far

more likely found in individualistic cultures and allocentric people in collectivistic cultures.

Development of the Concept

Recently, some scholars argued that the construct of independent and interdependent self-construal is an individual level of IC (Markus & Kitayama, 1991; Singelis & Brown, 1995). Markus and Kitayama (1991) defined self-construal as configuration of thoughts, feelings, and actions. They described the two types of self-construals, independent and interdependent, as systematic antecedents on cognition, emotion, and motivation. Markus and Kitayama (1995) stated that cultural influence on behavior is mediated by individuals' self-construal.[25] They argued that by better understanding the nature and the role of self in a psychological process as mediating and regulating a person's behavior, researchers could organize inconsistent empirical findings in cross-cultural studies.

According to the independent self-construal, the self is viewed as a "bound, unitary, stable" entity that is separate from social context. Therefore, people who emphasize independent self-construal behave primarily as a consequence of internal attributes rather than by reference to thoughts, feelings, and actions of others. On the other hand, those who emphasize interdependent self-construal see the self as part of a social relationship. Thus behaviors of people, who emphasize interdependent self-construal to a great extent, depend on their perception of the thoughts, feelings, and

[25] Other researchers also argued that individual values mediate the effect of the IC construct on an individual's behavior (Schwartz, 1992, 1994). Ball-Rokeach, Rokeach, and Grube (1984) contended that the values that individuals espouse are the essence of their personalities and have direct influence on their behavior.

actions of others (Markus & Kitayama, 1991). Although these two self-construals are not exclusive concepts in a person, most people hold one kind of self-construal more strongly than the other.

Application of the Concept

In recent years, the self-construal construct has been widely used to explore relationships between the self and various attitudinal and behavioral outcomes (see Levine, Bresnahan, Park, Lapinski, & Wittenbaum, 2001).[26] For example, Park, Levine, and Sharkey (1998) examined the effects of self-construal on the Theory of Reasoned Action (TRA) on the topic of recycling. Their study is keenly relevant to the current study because the TRA has a conceptually close relationship with the spiral of silence theory (see also Park & Levine, 1999). The TRA considers that human beings make rational decisions and these decisions direct their behaviors. The TRA states that two components (attitudinal and normative components) determine a person's behavioral intention and this intention is an antecedent of an actual behavior.

The attitudinal component refers to attitude toward behavior that is determined by aggregating the products of behavioral beliefs and evaluation of outcomes. Behavioral beliefs indicate that people believe that a behavior generates certain outcomes, and

[26] Park and Levine (1999) and Levine et al. (2001) raised a serious question about the validity of self-construal as an individual level of the IC construct. While their point is poignant, I will leave this issue to other studies and scholars. I'd rather present some inherent advantages of the self-construal construct over other rival constructs, including IC. First, researchers can focus their analysis on the individual rather than on culture. While it is undoubtedly true that culture can explain a considerable amount of an individual's motive, opinion, and behavior, the sole focus on culture of the social phenomenon could prevent people from looking into what a specific nature of self causes a person to behave in a certain way. That is, researchers lose the meaning of self when they attribute a psychological and social phenomenon only to the collectivity of culture. Second, the concept of self-construal was developed with due consideration of various cultures that offers a more balanced and generalizable perspective than a construct that has been solely developed in the Western countries.

evaluation of outcome means that people evaluate these outcomes as favorable or unfavorable consequences of the behavior. On the other hand, the normative component refers to the subjective norm that each individual forms through the summed products of normative beliefs and motivations to comply. Normative belief in the TRA denotes an individual's perception of what significant others would think of his or her behavior while motivation to comply refers to a person's tendency to comply with significant others. Park and her colleagues anticipated that people with strong independent self-construal would emphasize an attitudinal component and people with strong interdependent self-construal would focus on a normative component.

Specifically, Park, Levine, and Sharkey (1998) found that independent self-construal was negatively related to the subjective norm and interdependent self-construal was positively related to the subjective norm. The effect of the interdependent self-construal on the subjective norm is derived from people's differences in motivation to comply. In other words, the more people emphasize interdependent self-construal, the more they are motivated to comply with the wishes of others. Park and Levine (1999) found that across cultures, independent self-construal is positively correlated with personal attitude toward behavior and interdependent self-construal with normative beliefs, motivation to comply, and, subsequently, with subjective norm.

In light of the TRA, the spiral of silence theory emphasizes a normative component as a primary antecedent of a person's public behavior on a controversial topic. The difference between a normative component in the TRA and the perceived majority opinion in the spiral of silence theory is that the TRA puts more emphasis on the

influence of primary groups, while the spiral of silence theory emphasizes the importance of the general public and the mass media.

Park (1998) examined the relationship between self-construal and the spiral of silence hypotheses in the U.S. and Korea. She hypothesized that the stronger independent self-construal the individuals hold, the more they are willing to express their opinions in public and the stronger interdependent self-construal the individuals hold, the less they are willing to express their opinions in public.

Among three controversial topics (legalization of marijuana, assisted suicide, and homosexuality) prepared for the U.S. sample, independent self-construal was a significant determinant of their willingness to speak out in all but one case. However, in most cases, willingness to voice their opinions in two public forums (campus gathering and TV forum) was not significantly influenced by the strength of their interdependent self-construal. The exception was for speaking out on the marijuana issue at a campus gathering.

Her analysis revealed unexpected results in the Korean sample. In the three issues prepared for the Korean sample (economic aid to North Korea, death sentence to ex-president, and homosexuality), independent self-construal was not a significant factor in determining their willingness to express opinions. Moreover, interdependent self-construal was a significant factor on willingness to speak out only in the case of North Korea issue in a campus gathering, but in the direction contrary to her hypothesis.[27]

[27] Park (1998) speculated that the unexpected results might be caused by the issue characteristics. Although there have been many political and military conflicts between the North and the South since the Korean War, many South Koreans still believe that the North and the South belong to one nation. This feeling towards North Koreans seems to cause more willingness to speak out about economic aid to North Korea when the individual emphasizes interdependent self-construal over independent self-construal. This result,

Hypotheses

Although some conflicting results have been found in the past, previous studies in general indicated that individuals with strong independent self-construal showed higher willingness to speak out than individuals with strong interdependent self-construal. Higher willingness to speak out of people with strong independent self-construal implies that those people are more likely to be hardcores than others. The positive relationship between strong independent self-construal individuals and hardcores is expected because two groups of people share the way of thinking and behaving. That is, their thought and behavior are based on their internal attributes rather than reference to others. Theoretically, if public opinion is formed through interconnection of the general public as the spiral of silence theory indicates, people with strong independent self-construal will be freer from public opinion than people with strong interdependent self-construal. Two hypotheses of the study were drawn from the concept of self-construal.

H1: Individuals who emphasize their independent self-construal are more willing to speak out than individuals who emphasize their interdependent self-construal.

H2: The more independent self-construal the individuals emphasize, the more tendency they have to be hardcores.

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however, seems a unique example rather than a typical one. The issue of economic aid to North Korea strikes most fundamental elements of interdependent self-construal, such as group unity, solidarity, and concern for others. Furthermore, Korea is a very collectivistic country (Hofstede, 1980) in which concern for others in a community is perceived as one of the most encouraged and important virtues. People, therefore, have legitimate reasons to show their concern for others in public to affirm their basic social tenets. She did not, however, advance her discussion further on the relationship between the self-construal and the spiral of silence process because it was not a central theme of her study.

Right Wing Authoritarianism

Definition of the Concept

The concept of authoritarian personality has been one of the most investigated topics in social psychology. Notwithstanding, Altemeyer (1981) deplored the state of the art because these enormous research efforts did not lead to a greater understanding of the concept. Altemeyer (1981) attributed the under-accomplishment of researchers on this topic to a muddled conceptualization of the construct, low reliability of the findings, and insufficient reports (p. 112). Then, he proposed Right Wing Authoritarianism (RWA) personality as an alternative construct. RWA is defined as the covariation of three attitudinal clusters: (1) authoritarian submission-a high degree of submission to the authorities who are perceived to be established and legitimate in the society in which one lives, (2) authoritarian aggression-a general aggressiveness, directed against various persons, that is perceived to be sanctioned by established authorities, and (3) conservatism-a high degree of adherence to the social conventions that are perceived to be endorsed by society and its established authorities (Altemeyer, 1996, p. 6).

If public opinion is an authority as Noelle-Neumann suggests,[28] people with an authoritarian personality will be more sensitive to the fluctuation of public opinion as they would be towards any established authority. More specifically, highly authoritarian people will be more submissive to public opinion and yet more aggressive to people who are against public opinion than non-authoritarian people. Furthermore, as the conservatism aspect of RWA indicates, highly authoritarian people will be more

[28] People who consider public opinion as a social control tend to support the notion that public opinion is a form of authority.

supportive of public opinion than non-authoritarian people because public opinion is a prior form of social convention or another manifestation of existing social convention.

Other scholars also identified public opinion as an authority. Tönnies (1922) contended that "Public opinion always claims to be authoritative. It demands consent or at least compels silence, or abstention from contradiction" (as cited in Noelle-Neumann, 1974, p. 44). Tocqueville (2000) deplored the American democratic system in which public opinion, in his view, became the supreme authority in society, making the individuals helpless at the mercy of public opinion. Adorno and his colleagues (1950) argued that highly authoritarian people depend more on public opinion than non-authoritarian people to confirm their judgment.

Common Characteristics of RWA Personality and the Spiral of Silence Process

There are certain commonalities between the conceptualization of RWA personality and the spiral of silence process. First, the two concepts are based on social learning theory. Altemeyer believed that people form their attitudes towards an object through learning from other people and their environment at large (1981, pp. 254-255). Not only is the role of parents, friends, and neighbors important in forming a person's attitude on social issues, but the influence of the mass media also is significant. This theoretical assumption of RWA is parallel with a building block of the spiral of silence theory. While there are some important differences between the two ideas, such as the level of the mass media power and the role of the individual, the two ideas agree that there is a constant influence from external forces (other humans and mass media) and people adapt to it.

Second, Asch's (1951) conformity study, Milgram's (1983) obedience study, and Adorno and his colleagues' (1950) authoritarian personality study are the common conceptual forbearers of the two ideas. Noelle-Neumann and Altemeyer often cite these studies as precedents to their studies. Their association with these studies is not accidental because the concepts of conformity, obedience, and authoritarian personality are different aspects of a fundamentally similar phenomenon. The biggest difference between Noelle-Neumann and Altemeyer is that while Altemeyer, as well as Asch, Milgram, and Adorno and his colleagues, is more concerned about negative consequences of the phenomenon, Noelle-Neumann is focused on its positive consequences.

Third, research has found that authoritarian personality in society increases when a society experiences difficulties, such as a financial crisis or political revolution. This relationship between difficult times and the increase of authoritarian personality is analogous to the relationship between revolutionary times and the increase of threat of isolation in society described in the spiral of silence theory. This analogy between RWA and the spiral of silence theory seems inevitable because the increase of authoritarian personality in society will increase fear of isolation among people who are possibly targeted for negative sanctions.

Hypotheses

Based on the literature review on the concept, two patterns are expected. When authoritarian people believe that they belong to the minority opinion, they will be more likely to be silent than non-authoritarian people who think that they belong to the minority opinion because authoritarian people would not want to rebel against the

authority of public opinion. However, when authoritarian people perceive that they are in the majority opinion, they will become more expressive than non-authoritarian people who think that they belong to the majority opinion because authoritarian people tend to think that their opinion, which is legitimated by the authority of public opinion, would be the only just view on the issue and need to sanction different views. Furthermore, according to this rationale, people are less likely to have the tendency of hardcores when they are more authoritarian than others because they would not speak out against public opinion.

H3: The more authoritarian the individuals are, the less likely they speak out their opinion when they are perceived to belong to the minority opinion and the more likely they speak out their opinion when they are perceived to belong to the majority opinion.

H4: The more authoritarian the individuals are, the less tendency they have to be hardcores.

CHAPTER III

METHODS

The study is composed of two stages of survey research. The majority of studies on the spiral of silence theory have used the survey method in the past.[29] The survey instrument was distributed anonymously in classrooms.[30] In the preliminary survey, I developed the shortened scales for the two personality constructs and selected three most controversial topics for the final survey.

Preliminary Survey

The preliminary survey (see Appendix A) served two purposes: measuring the controversy level of various topics and obtaining short-versions of the RWA and self-construal scales. The survey was conducted among college students in an introductory College of Communications class at University of Tennessee in January 2002. The student sample of the study (n=91) consisted mostly of social science majors (84.6 %) and freshmen (72.5 %). Gender balance was fairly even with 43 male and 48 female students.

[29] However, Noelle-Neumann recommended using a survey interview and media content analysis together.
[30] This survey format is different from the survey interview individually done in Noelle-Neumann's studies. However, there is little indication that the survey interview would produce "purer" results than the typical anonymous survey design in which respondents fill out a questionnaire by themselves on their own pace. In fact, I argue that because the spiral of silence process deals with controversial topics that could make some respondents uncomfortable, the interview format might present a bigger risk in distorting subjects' responses (e.g., interviewer effect) as compared to an anonymous situation. Media content analysis was not conducted in this study because the idea is not compatible with the thesis of the spiral of silence theory (see footnote 17 for further discussion).

Topic Selection

Noelle-Neumann argues that a topic used for testing the spiral of silence process should be controversial enough to induce fear of isolation among members of society. In the survey, participants were asked to rate the controversy level of various topics with the seven-point scale ranging from –3 as not at all controversial to +3 as very controversial. However, all seven-point scale items (-3 to +3) were entered with the 1-7 usual keying into the SPSS program. The topics included were capital punishment, affirmative action, doctor-assisted suicide, environmental protection, abortion, gun control, welfare, homosexuality, racial profiling, military tribunals for terrorists, genetic engineering, and flag burning. Three most controversial topics were abortion (M=6.23), capital punishment (M=5.71), and affirmative action (M=5.64). The standard deviation values for these three topics were also the three smallest among the twelve topics which indicated that they were viewed as controversial evenly by all subjects.

Scale Development

The survey was conducted to obtain short-versions of the self-construal and RWA scales. Although some scholars have used short versions of the scales (e.g., Haddock, Zanna, & Esses, 1993), it was often not clear how they obtained the shortened scales. This preliminary survey was also expected to sort out some items in the original scales that might not be appropriate for the current study. For example, the terms “communists” or “hippies” that appeared in the 1982 RWA scale would arouse different sentiments in 2002 as they did in the 1980s.

A person's self-construal has been measured by a number of self-report scales. Singelis (1994), Gudykunst, Matsumoto, Ting-Toomey, Nishida, Kim, and Heyman (1996), and Leung and Kim (1997) developed the three most commonly used scales. Each of these scales measures independent and interdependent self-construals as two orthogonal dimensions. In the current study, I used Singelis's 24-item scale because of its clarity of the scale development. On the other hand, the 1982 RWA scale that has 30 statements (Altemeyer, 1996) was used for measuring a person's authoritarian personality.

Subjects were asked to rate their extent of agreement or disagreement with 54 items of statements using the –3 to +3 response scale. They were recorded with the 1-7 keying into the SPSS program, 1 as strongly disagree and 7 as strongly agree with each statement. Because the RWA scale was composed of 15 protrait and 15 contrait statements, the keying was reversed for contrait items, and thus higher scores represent higher levels of authoritarian personality in all RWA items. Higher scores in the self-construal items also indicate higher levels of interdependent or independent self-construal in the individual.

First I examined the strength of the original RWA scale using the current sample. The mean of inter-item correlations among the 30 items was .2156, showing higher level of internal consistency of the scale than found in the previous RWA studies (Altemeyer, 1981; Haddock, Zanna, & Esses, 1993). The alpha reliability of .89 also replicated the high level of reliability of the RWA scale in the past. The high mean value of inter-item correlations and alpha reliability of the sample indicated that the RWA scale was unidimensional and internally consistent. The confirmatory factor analysis of the 30 items

showed further that the scale was satisfyingly unidimensional (Normed fit index=0.895, relative fit index=0.879).

To reduce the items of the RWA scale, the factor analysis with the principal component extraction method was used along with the inspection of the item wording. Although eight factors with eigenvalue greater than 1 were extracted, the first factor explained 25.4 percent of the total variance with the eigenvalue of 7.6. The extraction values of all items except four items were over .4 indicating strong relationships with the first factor. Altemyer (1981) reported similar results in his study twenty years ago. Based on the values of variance explained, five pro-sided and five con-sided items were selected. The wording of each selected item was scrutinized to sort out an untimely one. When the wording of the item was deemed to be inappropriate or irrelevant to the present, the next largest item in terms of the values of variance explained was selected. During the process, the mean of inter-item correlations and their alpha reliability were examined to see how much each replacement changed each value. Finally five protrait (3, 5, 9, 14, and 16)[31] and five contrait items (4, 18, 21, 24, and 27) were selected for the final survey.[32]

A confirmatory factor analysis, inter-item correlations, and reliability test on the 10 items revealed that the new scale, in general, was more unidimensional and more consistent internally than the original RWA scale; normed fit index = 0.967, relative fit index = 0.948, mean of inter-item correlations = .3034, and alpha reliability = .81.

[31] The item numbers in this and the next page of the shortened scales refer to the item numbers in the preliminary questionnaire (see Appendix A).

[32] To verify the pertinence of the selected items, I also used the Varimax rotated factor analysis. The result was almost identical with the result of the principal factor analysis. I used the principal factor analysis because of its simper form. In the examination of the self-construal items, the two factor analyses also extracted almost identical results.

As for the self-construal scale, the original scale was examined in terms of its unidimensionality and internal consistency. The mean of inter-item correlations on the 12 interdependent self-construal items was .1961 and their alpha reliability was .73. In the confirmatory factor analysis, the normed fit index was 0.962 and their relative fit index 0.946. On the other hand, the mean of inter-item correlations on the 12 independent self-construal items was .2052 and their alpha reliability .74. The confirmatory factor analysis revealed that their normed fit index was 0.959 and relative fit index 0.940.

I followed the same procedure for the self-construal scale as for the RWA scale in reducing some items from the original scale. I used factor analysis with the principal component extraction method along with the examination of the item wording, mean of inter-item correlations, and alpha reliability. I analyzed 12 interdependent and 12 independent self-construal items separately. In the interdependent self-construal, the items 2, 3, 5, 6, 7, 8, 9, and 12 were selected for the final survey while in the independent self-construal, the items 2, 3, 4, 5, 7, 9, 10, and 11 were selected.

In the shortened interdependent self-construal, the mean of inter-item correlations was .2471 and their alpha reliability was .71. In the confirmatory factor analysis, their normed fit index was 0.979 and their relative fit index 0.962. All indices on the shortened interdependent self-construal scale have been improved from the original scale except for the alpha reliability, understandably because of the elimination of some items. In the case of independent self-construal, the shortened scale showed better indices than the original scale in most criteria. The mean of inter-item correlations on the eight items was .2815 and their alpha reliability was .75. The confirmatory factor analysis showed that their normed fit index was 0.964 and relative fit index 0.936.

Main Survey

After the three controversial topics and the short versions of the two personality scales were identified, the final survey was conducted among college students (n=714) at University of Tennessee from March through April 2002. Most surveys were conducted in a regular class. Three topics were used in the final survey to ascertain whether or not the spiral of silence process is a common phenomenon among different controversial topics. Nevertheless, a subject was questioned on only one topic in the final survey to keep the final questionnaire at a reasonable length. Three versions of the questionnaires, one for each topic, were distributed randomly resulting 238 participants in abortion, 234 in affirmative action, and 242 in capital punishment.

The final questionnaire (Appendix B) is composed of four parts: 1) questions on a controversial topic to examine the spiral of silence phenomenon, 2) items to measure a person's right wing authoritarian personality, 3) items to measure a person's independent and interdependent self-construals, and 4) demographic questions. Each part of the final questionnaire is elaborated in the following sections.

Questions on a Controversial Topic

The first question asks a person's own issue position on the topic. Although there are seven options a person can choose from –3 to +3 depending on the direction and the strength of his or her opinion, this question was again recorded into the simple agreement/disagreement dichotomy excluding the neutral point of 0.

The second question asks a person's perception of the current trend of his or her personal opinion among the U.S. population. Questions 3, 4, 5, and 8 examine a person's

perception of the opinion climate among the U.S. population, local (Knoxville) population, family and close friends, and TV news programs. In question 6, a subject predicts the issue resolution in the future. These six questions about a person's perception of the opinion climate with his or her own dichotomous issue position extracted from the first question produce six new variables of whether the respondent perceives the opinion climate as congruent or incongruent. A congruent situation is defined as a situation in which a person's issue position is synchronous with his or her perceived opinion climate. Therefore, people who answered with "about fifty-fifty" or "impossible to tell" in questions 2, 3, 4, 5, 6, and 8 were excluded when determining a person's belonging to the congruent or incongruent opinion climate in the new six variables.

Six new variables are divided into two levels depending on: 1) whether one's issue position is perceived to gain or lose its support among the U.S. population (*U.S. Trend*); 2) whether one's issue position is perceived to be congruent or incongruent with the majority opinion among the U.S. population (*U.S. Majority*); 3) whether one's issue position is perceived to be congruent or incongruent with the majority opinion among the local population (*Local Majority*); 4) whether one's issue position is perceived to be congruent or incongruent with the majority opinion among his or her primary group[33] (*Primary Majority*); 5) whether one's issue position is perceived to succeed or fail to gain legal dominance in the future (*Future Prospect*); and 6) whether one's issue position is perceived to be congruent or incongruent with the majority opinion among TV news programs (*TV Majority*).

[33] Cooley (1909) defined a primary group as a small group characterized by intimate face-to-face relations. In the current study, the primary group is operationalized as being composed of one's family members and close friends.

Except for *Future Prospect,* all five other variables are based on people's estimation of the present opinion climate. Although *U.S. Trend* and *U.S. Majority* are based on the U.S. population concurrently, *U.S. Trend* measures the movement of a person's view regardless of the perceived quantitative strength of the view whereas *U.S. Majority* measures simple quantitative strength of each view at present.

Question 7 measures expected hostility from the opposite camp when a person expresses his or her opinion in public. Noelle-Neumann argues that people in a polarized situation avoid people who espouse the opposite view. Although it is not clear why they avoid each other, one likely reason might be a fear of psychological or physical harm inflicted by the people of the opposite camp. While expected hostility could indicate threat of isolation felt in a person individually, it could also mean how much the issue has been polarized between the two opposite camps societally. The hostility would be derived from the combination of issue itself, situational factors, and individual sensitivity (see also Neuwirth & Frederick, 2000). However, expected hostility is different from fear of isolation because the individual may not fear hostility and may enjoy a hostile situation. Thus, question 7 measures threat of isolation directly and issue polarization indirectly.

Some issue characteristics are measured to examine how each issue characteristic affects a person's willingness to speak out; issue controversy (Question 9), issue importance (Questions 10 and 11), and issue knowledge (Questions 12 and 13). Subjects are asked to reflect issue importance in a personal and national context while a person's issue knowledge is subjectively measured in comparison with other students at the campus and with the national population.

The current study adopts three dependent variables to measure people's willingness to speak out; entering a discussion with an opponent at a party, putting a bumper sticker on a car, and being interviewed by a TV reporter (Questions 14, 15, and 16). The three variables differ in their level of publicness which is determined by the extent of how much a person's professed opinion could be known to others. The interview by a TV reporter is the highest in publicness while entering a discussion at a party is the least public among the three situations.

A few studies have tried to measure the concept of the hardcore (e.g., Glynn & McLeod, 1985). Yet, those studies have failed to capture the essence of the hardcore (Noelle-Neumann, 1985). Question 17 asks the defining characteristic of the hardcore: willingness to express one's minority opinion in an incongruent situation.

This general hardcoreness measured by question 17 is construed as a person's tendency of becoming a hardcore in reality. Although the hardcore phenomenon has been understood by identifying individuals who do not fear isolation and are willing to pay its price, not as a person's tendency of becoming such a person, it is not clear how much fear a hardcore is willing to take or he or she is able to disregard and how much price he or she is willing to pay in the original conception of the idea. It is almost impossible to conceive a person who does not fear anything and conquer any fear imaginable involved in the expression of an unpopular or minority view and who is willing to pay any price in any kind of situation unless he or she is insane or extremely idiotic. In this study, therefore, the hardcore phenomenon is understood and measured as a person's level of tendency to express an unpopular or minority view in a hypothesized incongruent situation.

Question 18 measures fear of isolation that a person expects to feel when he or she expresses his or her opinion (see Glynn & Park, 1997, p. 222). This fear of isolation is related to hardcoreness (Question 17) because a person's hardcoreness would increase as he or she is oblivious to fear of isolation involved in the issue discussion.

Personality Questions

The short-version of the RWA scale in the second part examines a person's level of authoritarian personality. After missing values were replaced with "series mean," the 10 items of the RWA scale were totaled and divided by 10 to get the mean for each individual. People were divided into three groups using the mean; low-authoritarians (1-3), middle-authoritarians (3-5), and high authoritarians (5-7).

The third part of the questionnaire examines a person's self-construal using the shortened scale. After all missing values were replaced with "series mean," a person's independent self-construal and interdependent self-construal were analyzed separately. Although 4 was the middle in the seven-point scale, 5 was used as a cut point to divide people into two groups because people tended to answer at highs for the self-construal items.

After the eight items for each self-construal were added, the total number was divided by 8 to get the mean. People whose mean exceeds 5 were assigned as high independent self-construal or high interdependent self-construal individuals. Using these two variables, a new variable that takes both self-construals into account was created with four levels; 1) *No Emphasis* individuals whose mean do not exceed 5 in both self-construals; 2) *Independent Emphasis* individuals whose mean exceed 5 only in the

independent self-construal; 3) *Interdependent Emphasis* individuals whose mean exceed 5 only in the interdependent self-construal; 4) *Both Emphasis* individuals whose mean exceed 5 in both self-construals.

Demographic Questions

The demographic questions in the last part ask a person's gender, political party affiliation, academic major, year in school, and age. Questions 5, 6, 7, 8, and 9 are asked to inquire about sources of political information. Two media sources, TV and the Internet, are singled out for further inquiry. While Noelle-Neumann emphasizes TV as the most influential mass media, the Internet in its importance as an information source has grown most exponentially as compared to other media sources.

Depending on whether a person watches political programs on TV, people are divided into TV users and TV nonusers whereas depending on whether a person visits any political sites on the Internet, two groups of people are identified as Internet users and Internet nonusers.

CHAPTER IV

RESULTS

This chapter is composed of three sections. The first section reports descriptive statistics of the sample and the unidimensionality and reliability of the shortened personality scales. In the second section, overall ideas of the spiral of silence process are examined. The third section presents the findings of hypothesis-testing.

Descriptive Statistics

The Sample and the Survey Questions

Three controversial topics were used in the current study: abortion (n=238), affirmative action (n=234), and capital punishment (n=242). These topics were identified as the most controversial topics among college students in the preliminary survey. Detail information about the sample is reported in Table 1 separately from topic to topic.

The opinion distribution of the sample showed that the participants were more conservative than the general public. For example, 30.9 percent of the sample favored abortion, 54.2 percent opposed, and 14.8 percent showed no preference while the 2000 Gallup study demonstrated that 48 percent of the U.S. population was pro-choice, 43 percent pro-life, and 9 percent showed no opinion. The Gallup study also revealed that 56 percent of the U.S. population favored affirmative action programs, 36 percent opposed, and 8 percent had no opinion (in the sample, 46.4, 38.2, and 15.5 percent respectively). In the topic of capital punishment, 66 percent of the U.S. population favored it, 26 percent

Table 1. Frequencies and Descriptive Statistics of the Sample (%).

	Abortion (n=238)	Affirmative Action (n=234)	Capital Punishment (n=242)
Issue position (Q1) [a]	54.2 opposers 30.9 favorers 14.8 neutrals	38.2 opposers 46.4 favorers 15.5 neutrals	29.0 opposers 63.1 favorers 7.9 neutrals
U.S. Trend Perception (Q2)	24.4 gaining support 16.4 losing support 40.3 staying the same 18.9 impossible to tell	26.5 gaining support 24.8 losing support 26.9 staying the same 21.8 impossible to tell	23.2 gaining support 19.1 losing support 40.2 staying the same 17.4 impossible to tell
U.S. Trend Opinion Climate [b]	59.8 congruence 40.2 incongruence	51.7 congruence 48.3 incongruence	54.9 congruence 45.1 incongruence
U.S. Majority Perception (Q3)	24.6 majority in favor 19.9 majority opposed 42.8 about fifty-fifty 12.7 impossible to tell	22.2 majority in favor 22.2 majority opposed 46.2 about fifty-fifty 9.4 impossible to tell	37.8 majority in favor 11.6 majority opposed 46.1 about fifty-fifty 4.6 impossible to tell
U.S. Opinion Climate [b]	38.5 congruence 61.5 incongruence	49.5 congruence 50.5 incongruence	51.4 congruence 48.6 incongruence
Local Majority Perception (Q4)	8.5 majority in favor 56.8 majority opposed 16.9 about fifty-fifty 17.8 impossible to tell	13.2 majority in favor 40.6 majority opposed 22.2 about fifty-fifty 23.9 impossible to tell	46.3 majority in favor 15.4 majority opposed 20.4 about fifty-fifty 17.9 impossible to tell
Local Opinion Climate [b]	61.8 congruence 38.2 incongruence	58.6 congruence 41.4 incongruence	53.7 congruence 46.3 incongruence
Primary Majority Perception (Q5)	19.7 majority in favor 55.5 majority opposed 21.4 about fifty-fifty 3.4 impossible to tell	31.6 majority in favor 38.9 majority opposed 21.4 about fifty-fifty 8.1 impossible to tell	54.5 majority in favor 16.5 majority opposed 23.6 about fifty-fifty 5.4 impossible to tell
Primary Opinion Climate [b]	85.7 congruence 14.3 incongruence	86.6 congruence 13.4 incongruence	81.6 congruence 18.4 incongruence
Future Prospect (Q6)	17.6 possibly outlawed 67.2 not probable 15.1 impossible to tell	32.5 possibly abolished 45.7 not probable 21.8 impossible to tell	12.0 possibly abolished 70.1 not probable 17.8 impossible to tell
Future Opinion Climate [b]	50.3 congruence 49.7 incongruence	59.5 congruence 40.5 incongruence	62.0 congruence 38.0 incongruence

Table 1. Continued.

	Abortion	Affirmative Action	Capital Punishment
Perceived Hostility (Q7) [c]	17.6 not hostile 63.9 very hostile 18.5 neutrals Mean=4.72	20.1 not hostile 54.7 very hostile 25.2 neutrals Mean=4.53	25.2 not hostile 61.6 very hostile 13.2 neutrals Mean=4.50
TV Majority Perception (Q8)	27.0 majority in favor 15.2 majority opposed 29.5 about fifty-fifty 28.3 impossible to tell	41.5 majority in favor 7.7 majority opposed 23.9 about fifty-fifty 26.9 impossible to tell	29.6 majority in favor 18.8 majority opposed 33.3 about fifty-fifty 18.3 impossible to tell
TV Opinion Climate [b]	39.8 congruence 60.2 incongruence	59.6 congruence 40.4 incongruence	47.6 congruence 52.4 incongruence
Issue Controver-sy (Q9) [d]	2.9 not controversial 94.5 very controversial 2.5 neutrals Mean=6.24	7.3 not controversial 82.9 very controversial 9.8 neutrals Mean=5.41	7.9 not controversial 87.2 very controversial 5.0 neutrals Mean=5.85
Issue Importance -personal (Q10) [e]	9.3 not important 75.9 very important 14.8 neutrals Mean=5.30	22.6 not important 57.3 very important 20.1 neutrals Mean=4.57	13.3 not important 67.5 very important 19.2 neutrals Mean=4.88
Issue Importance -social (Q11) [e]	3.4 not important 87.8 very important 8.8 neutrals Mean=5.70	7.7 not important 83.3 very important 9.0 neutrals Mean=5.45	5.8 not important 88.8 very important 5.4 neutrals Mean=5.78
Issue Knowledge -local (Q12) [f]	10.1 not knowledgeable 70.2 very knowledgeable 19.7 neutrals Mean=5.03	27.4 not knowledgeable 52.1 very knowledgeable 20.5 neutrals Mean=4.35	13.2 not knowledgeable 59.9 very knowledgeable 26.9 neutrals Mean=4.70
Issue Knowledge -national (Q13) [f]	11.8 not knowledgeable 64.7 very knowledgeable 23.5 neutrals Mean=4.95	27.8 not knowledgeable 56.4 very knowledgeable 15.8 neutrals Mean=4.48	18.2 not knowledgeable 59.9 very knowledgeable 21.9 neutrals Mean=4.71
At party (Q14)	Mean=3.94	Mean=3.79	Mean=3.93
Bumper sticker (Q15)	Mean=2.00	Mean=1.88	Mean=2.07

Table 1. Continued.

	Abortion	Affirmative Action	Capital Punishment
TV interview (Q16)	Mean=4.96	Mean=4.52	Mean=4.92
Hardcoreness (Q17) [g]	19.3 non-hardcoreness 71.8 hardcoreness 8.8 neutrals Mean=5.17	25.2 non- hardcoreness 62.0 hardcoreness 12.8 neutrals Mean=4.80	15.3 non- hardcoreness 69.8 hardcoreness 14.9 neutrals Mean=5.05
Fear of isolation (Q18) [h]	69.7 no fear 13.9 afraid 16.4 neutrals Mean=2.47	75.6 no fear 11.5 afraid 12.8 neutrals Mean=2.37	73.1 no fear 14.0 afraid 12.8 neutrals Mean=2.35
Right Wing Authoritarianism (RWA) [i]	16.0 low RWA 58.4 middle RWA 25.6 high RWA Mean=4.26	23.1 low RWA 57.3 middle RWA 19.7 high RWA Mean=3.98	20.2 low RWA 60.7 middle RWA 19.0 high RWA Mean=3.95
Interdependent Self-construal [i]	70.2 low inter S-C 29.8 high inter S-C Mean=4.65	74.4 low inter S-C 25.6 high inter S-C Mean=4.61	67.4 low inter S-C 32.6 high inter S-C Mean=4.72
Independent Self-construal [i]	38.2 low inde S-C 61.8 high inde S-C Mean=5.29	41.5 low inde S-C 58.5 high inde S-C Mean=5.25	42.6 low inde S-C 57.4 high inde S-C Mean=5.27
Combined Self-construal [i]	25.6 no emphasis 44.5 inde emphasis 12.6 inter emphasis 17.2 both emphasis	29.5 no emphasis 44.9 inde emphasis 12.0 inter emphasis 13.7 both emphasis	26.4 no emphasis 40.9 inde emphasis 16.1 inter emphasis 16.5 both emphasis
Gender	45.4 males 54.6 females	43.2 males 56.4 females	41.5 males 58.5 females
Party	55.1 Republicans 22.5 Democrats 14.8 Independents 7.6 others	38.9 Republicans 27.0 Democrats 17.3 Independents 16.8 others	46.9 Republicans 23.0 Democrats 18.8 Independents 11.3 others
School Year	22.3 freshmen 14.7 sophomore 29.4 juniors 25.6 seniors 8.0 graduates	22.2 freshmen 17.5 sophomore 21.8 juniors 28.2 seniors 10.3 graduates	19.9 freshmen 18.7 sophomore 26.6 juniors 24.5 seniors 10.4 graduates

Table 1. Continued.

	Abortion	Affirmative Action	Capital Punishment
TV Usage [j]	73.9 TV users 26.1 TV nonusers	70.9 TV users 29.1 TV nonusers	74.7 TV users 25.3 TV nonusers
Internet Usage [j]	34.9 Internet users 65.1 Internet nonusers	32.1 Internet users 67.9 Internet nonusers	25.3 Internet users 74.7 Internet nonusers
Primary Political Information Source	64.7 TV 3.8 radio 7.2 newspaper 0.9 magazine 10.6 Internet 12.8 family and friends	57.7 TV 3.8 radio 12.8 newspaper 1.7 magazine 10.3 Internet 13.7 family and friends	68.2 TV 3.3 radio 7.5 newspaper 0.4 magazine 5.0 Internet 15.5 family and friends
Age	Mean=21.79	Mean=21.79	Mean=21.84

Notes:
[a] A person's opinion on the issue was measured using a balanced seven-point (-3 to +3) scale having a neutral point of 0. People who answered –3 to –1 were classified as "opposers" while people who answered +1 to +3 were named as "favorers" about the issue. Those who answered 0 were named as "neutrals." This classification scheme was used for other seven-point scale variables in this study. That is, two contrasting groups in those variables were identified depending on whether they answered the question negatively or affirmatively along with the group of neutrals. In the analysis, however, only two contrasting groups were compared excluding neutrals.
[b] See p. 61 for the description of these "opinion climate" variables.
[c] People in the –3 to –1 range were assigned as "not hostile" people[34] and people in the +1 to +3 range as "very hostile" people.
[d] People in the –3 to –1 range were classified as "not controversial" and people in the +1 to +3 range as "very controversial."
[e] People in the –3 to –1 response range were classified as "personally not important" or "socially not important" while those in the +1 to +3 response range were assigned as "personally very important" or "socially very important."
[f] People in the –3 to –1 response range were named as "not knowledgeable locally" or "not knowledgeable nationally" while those in the +1 to +3 response range were assigned as "very knowledgeable locally" or "very knowledgeable nationally."
[g] People were divided into "non-hardcoreness" or "hardcoreness" people depending on how much they were willing to speak out in incongruent situations in general. In the seven-point scale, those in the –3 to –1 range were assigned as "non-hardcoreness" people and those in the +1 to +3 range as "hardcoreness" people.
[h] Using the question of how much a person was concerned about social isolation in his or her community, people were divided into "no fear (–3 to –1)" and "afraid (+1 to +3)" groups.
[i] See pp. 64-65 for the description of how these personality variables have been classified.
[j] These variables were divided depending on whether a person uses TV or the Internet for getting political information.

[34] Although a more precise term for these people would be "less hostile," this extreme term "not hostile" was used for the clear contrast with the opposite "very hostile" group. The same logic applied to other terms such as "personally not important" or "not knowledgeable nationally" over "personally less important" or "less knowledgeable nationally."

opposed, and 8 percent no opinion (in the sample, 63.1, 29.0, and 7.9 percent respectively). [35]

In the perception of the opinion trend, across the three topics the number of people who believed their view to be gaining support among the U.S. population was larger than people who thought their view to be losing support which showed self-serving biases (Kennamer, 1990). At the same time, about 40 percent of the sample for the topics of abortion and capital punishment perceived that the level of the support for their opinion was staying the same among the U.S. population. This indicated that people perceived those issues to be fairly stabilized in public. On the other hand, in the affirmative action topic, the number of people (26.9 percent) who perceived that the level of the support for their opinion was staying the same was significantly smaller than those in the other two topics. This implied that the affirmative action program was a possibly more dynamic issue in people's minds as compared to the other two issues.

More than 40 percent of study participants perceived that around the same number of people in the U.S. would support the two contrasting views in all three topics. When these people who answered with "about fifty-fifty" were excluded, there were some differences in people's perceptions about the U.S. majority opinion among topics. While in the affirmative action topic, the same number of participants perceived that the majority of U.S. population would favor or oppose the affirmative action programs,

[35] Because the wording of a question can affect people's responses one way or another, it is important to know the exact questions posed in the Gallup study. The abortion question was "With respect to the abortion issue, would you consider yourself to be pro-choice, or pro-life?"; pro-choice, pro-life, or no opinion (The Gallup poll; public opinion 2000, p. 110). In addition, the affirmative action question was "Do you generally favor or oppose affirmative action programs for women and minorities?"; favor, oppose, or no opinion (The Gallup poll; public opinion 1997, p. 257) whereas the capital punishment question was "Are you in favor of the death penalty for a person convicted of murder?"; favor, oppose, or no opinion (The Gallup poll; public opinion 2000, p. 201).

larger percentage of participants perceived that the majority of the U.S. population would favor abortion rights and capital punishment. For instance, 37.8 percent of the sample perceived that the majority of the U.S. population would be in favor of capital punishment while 11.6 percent of the sample perceived that the majority of the U.S. population would be opposed to capital punishment. When study participants' perception about the U.S. opinion distribution was compared to the actual U.S. opinion distribution reported by the Gallup organization, the majority of the participants in the current study failed to estimate the actual opinion distribution.[36]

Most participants of the study estimated that the majority of people in the researched city would oppose the abortion right and affirmative action programs and favor capital punishment. Although there is no actual data about the opinion distribution of the people in the city, this estimation by the study participants is likely to be correct considering the opinion distribution of the sample and their party affiliations.

People's estimation of the opinion distribution among the local population was similar with their perception of the opinion distribution among their primary group. Study participants estimated that the majority of his family members and close friends would oppose the abortion right and capital punishment whereas they estimated a more balanced opinion distribution about affirmative action among their primary group. Not surprisingly, only a small fraction of participants responded to this question with "impossible to say" as compared to other estimation questions because people would be

[36] It was assumed that the Gallup report was an actual representation of the U.S. population. Because the Gallup study reported that the majority of U.S. population favored affirmative action programs and capital punishment, only 22.2 percent of the participants in affirmative action and 37.8 percent in capital punishment estimated the actual opinion distribution correctly. On the other hand, because the actual percentages of the favorers and opposers of abortion were 48 and 43 percent respectively, the "about fifty-fifty" response (42.8 percent) could be considered as the most correct estimation in the abortion issue.

more knowledgeable about the dominant opinion among their primary group than among anonymous general public. More than 80 percent of participants across the three topics perceived their personal opinion to be congruent with that of their primary group.

While most people did not believe that legalized abortion or capital punishment would be abolished in the future, many participants in affirmative action programs doubted the maintenance of the programs in the future.

Participants were the least sure about the opinion distribution of the TV news programs among the six opinion distributions of the study. That is, more people in this question than in any other questions answered with "impossible to say" while close to thirty percent of the participants believed that TV news programs represented both views evenly. When these "about fifty-fifty" and "impossible to say" responses were excluded from the analysis, larger number of the participants thought that the majority of TV news programs favored abortion, affirmative action, and capital punishment.

In general, people expected hostility from the opposite camp when they asserted their opinions in public across all three topics. Specifically, 63.9 percent of the participants in abortion, 54.7 percent in affirmative action, and 61.6 percent in capital punishment expected hostility from opponents in public.

Most people considered the three topics very controversial; in the seven-point scale, the abortion issue was rated as 6.24, affirmative action 5.41, and capital punishment 5.85. In abortion, 94.5 percent of the participants perceived the topic to be very controversial.

People thought that all three topics were personally and socially important although they put more importance on the topics' social relevance than on their personal

relevance. The mean of the personal importance level for each topic was 5.30 (abortion), 4.57 (affirmative action), and 4.88 (capital punishment) while the mean of the social importance level was 5.70 (abortion), 5.45 (affirmative action), and 5.78 (capital punishment). ANOVA analyses indicated that in the personal importance, the abortion topic was considered more important than the other topics ($f=15.204$, $p<.001$) whereas in the social importance, participants thought capital punishment is a more important topic than affirmative action ($f=5.314$, $p<.01$).

People perceived that in general they were more knowledgeable about the topic than other people either locally or nationally. When compared to other students on campus, 70.2 percent of participants in abortion, 52.1 percent in affirmative action, and 59.9 percent in capital punishment thought that they were more knowledgeable than other students on campus while 64.7 percent in abortion, 56.4 percent in affirmative action, and 59.9 percent in capital punishment thought that they were more knowledgeable than the general public in the U.S.

In the combined sample, the mean for the three dependent variables were 3.89 (at a party), 1.98 (bumper sticker), and 4.80 (TV interview) in the seven-point scale. Three paired-samples t-test showed that people were significantly more willing to speak to a TV reporter than to talk to an opponent at a party or to put a bumper sticker on their cars at the .001 significance level. When the three dependent variables were compared among the three topics, the only significance was found in the TV interview situation. That is, people were more willing to speak to a TV reporter if the interview was about abortion or capital punishment than about affirmative action ($f=3.471$, $p<.05$).

In the examination of a person's tendency of becoming a hardcore, 71.8 percent of the participants in abortion, 62.0 percent in affirmative action, and 69.8 percent in capital punishment agreed with the statement "I would express my opinion even when all people in a group oppose to my opinion on the topic of (corresponding topic)."

Most participants were not concerned about possible antagonistic reactions from other members of their community prompted by their professed opinions. More specifically, 69.7 percent of the participants in abortion, 75.6 percent in affirmative action, and 73.1 percent in capital punishment expressed no fear of isolation resulting from their outspokenness.

In the classification of people depending on the level of their authoritarian personality, the majority of participants were assigned as "middle-authoritarians" whose mean of 10 RWA items ranged from 3 to 5. On the other hand, the participants tended to emphasize their independent self-construal more than their interdependent self-construal.

When the samples for the three topics were combined, 43 percent of the participants were males and 57 percent were females. The party composition of the sample showed the conservative nature of the sample: unlike the general public, 47.1 percent of the sample was Republicans, 24.1 Democrats, 17.0 Independents, and 11.8 others. Across the three topics, more than 70 percent of the participants used TV for getting political information while around 30 percent of the participants used the Internet for the purpose. TV was the most prominent medium for getting political information among the participants. In the combined sample, the primary political source for 63.6 percent of the participants was TV, 3.7 percent radio, 9.2 percent newspapers, 1.0 percent

magazines, 8.6 percent the Internet, and 14.0 percent family and close friends. The mean age of the combined sample was 21.81.

The Shortened Personality Scales

The reliabilities of the shortened personality scales were reported using the sample of the final survey. The mean of inter-item correlations for the 10 RWA items was .3432 and their alpha was .84. Their normed fit index was 0.980 and relative fit index 0.969 in the confirmatory factor analysis. These values indicated that this shortened RWA scale has been somewhat improved from the original scale reported in the preliminary survey (in the original scale, mean of inter-item correlations=.2156, alpha=.89, normed fit index=0.895, and relative fit index=0.879).

For eight items of interdependent self-construal, the mean of inter-item correlations was .1763, their alpha .63, their normed fit index 0.993, and their relative fit index 0.988 (in the original scale, mean of inter-item correlations=.1961, alpha=.73, normed fit index=0.962, and relative fit index=0.946). On the other hand, the mean of inter-item correlations for eight independent self-construal items was .2605 and their alpha .73. In the confirmatory factor analysis, their normed fit index was 0.970 and relative fit index 0.947 (in the original scale, mean of inter-item correlations=.2052, alpha=.74, normed fit index=0.959, and relative fit index=0.940).

Testing the Spiral of Silence Process

Before testing the main hypotheses of the study, overall ideas of the spiral of silence process and some new propositions related to the process have been examined.

This general analysis of the process is designed to examine whether the current study confirms or disconfirms the spiral of silence phenomenon.

Assumptions of the Spiral of Silence Process

Two fundamental assumptions of the spiral of silence process, fear of isolation and quasi-statistical sense, were tested. The spiral of silence theory states that if an issue were controversial among members of society, fear of isolation would compel people to estimate the opinion climate[37] and drive them to behave in accordance with the perceived majority opinion.

The three topics were very controversial among the participants (abortion=6.24, affirmative action=5.41, and capital punishment=5.85) and the participants in all topics tended to expect hostility from the opposite camp (abortion=4.72, affirmative action=4.53, and capital punishment=4.50). Nevertheless, people felt a minimal amount of fear of isolation (abortion=2.47, affirmative action=2.37, and capital punishment=2.35) (see Table 1). This indicated that although people were able to detect controversy and threat of isolation involved in the issue, they were little afraid of isolation.

The assumption of a quasi-statistical sense was confirmed in all topics because the majority of the participants were able to assess the opinion distribution whether their estimation is right or wrong (Noelle-Neumann, 1984, pp. 8-10; 1991, pp. 268-271, Table 2).

[37] The spiral of silence theory implies that humans estimate the opinion climate all the time because fear of isolation is permanent (Noelle-Neumann, 1991, p. 260). However, the spiral of silence phenomenon is to be observed only when certain conditions of the issue are met. For example, the issue should have a moral or aesthetic component and should be controversial.

Table 2. Observation of the Opinion Climate.

	Percentage of the sample providing an estimate		
	Abortion (n=238)	Affirmative Action (n=234)	Capital Punishment (n=242)
U.S. Trend Perception	81.1	78.2	82.6
U.S. Majority Perception	87.3	90.6	95.4
Local Majority Perception	82.2	76.1	82.1
Primary Majority Perception	96.6	91.9	94.6
Future Prospect	84.9	78.2	82.2
TV Majority Perception	71.7	73.1	81.7

Opinion Congruence and Willingness to Speak Out

The main thesis of the spiral of silence process is that when people perceive the opinion climate to be congruent with their own opinions, they are more likely to speak out and vice versa. This proposition was tested by comparing people's willingness to speak out in the congruent opinion climate and in the incongruent opinion climate using three dependent variables (discussing the topic with an opponent at a party, putting a bumper sticker, and talking to a TV reporter) (Table 3).

The only significant difference in abortion was the TV interview situation between people who perceived their opinion to be congruent with the dominant view of TV news programs and people who perceived their opinion to be incongruent with the dominant view of TV news programs ($t= -2.107$, $p<.05$). Surprisingly, the direction of the significance was the opposite from the expectation of the spiral of silence theory. That is, people were more likely to talk to a TV reporter about abortion when they thought that their view was an underdog in the current media climate.

Table 3. Willingness to Speak Out between People in the Congruent Opinion Climate and People in the Incongruent Opinion Climate.

	Abortion	Affirmative Action	Capital Punishment
U.S. Trend			
At a Party Congruent Incongruent	 Mean=4.14 (n=58) Mean=3.90 (n=39) t= .628	 Mean=3.92 (n=62) Mean=3.91 (n=58) t= .017	 Mean=4.02 (n=56) Mean=4.26 (n=46) t= -.692
Bumper Sticker Congruent Incongruent	 Mean=1.81 (n=58) Mean=2.03 (n=39) t= -.699	 Mean=1.89 (n=62) Mean=1.96 (n=57) t= -.316	 Mean=1.95 (n=56) Mean=2.74 (n=46) t= -2.171* df=79.085
TV Interview Congruent Incongruent	 Mean=5.07 (n=57) Mean=5.41 (n=39) t= -.813	 Mean=4.69 (n=62) Mean=5.02 (n=58) t= -.924	 Mean=5.04 (n=56) Mean=5.37 (n=46) t= -.968
U.S. Majority			
At a Party Congruent Incongruent	 Mean=3.91 (n=35) Mean=3.96 (n=56) t= -.136	 Mean=3.67 (n=45) Mean=4.07 (n=46) t= -1.110	 Mean=3.89 (n=55) Mean=4.27 (n=52) t= -1.078
Bumper Sticker Congruent Incongruent	 Mean=1.83 (n=35) Mean=2.29 (n=56) t= -1.348	 Mean=1.98 (n=44) Mean=2.15 (n=46) t= -.514	 Mean=1.73 (n=55) Mean=2.63 (n=52) t= -2.815** df=87.167
TV Interview Congruent Incongruent	 Mean=5.14 (n=35) Mean=5.34 (n=56) t= -.460	 Mean=4.89 (n=45) Mean=5.00 (n=46) t= -.278	 Mean=4.60 (n=55) Mean=5.44 (n=52) t= -2.326* df=105
Local Majority			
At a Party Congruent Incongruent	 Mean=3.85 (n=81) Mean=3.98 (n=50) t= -.400	 Mean=3.49 (n=65) Mean=3.98 (n=46) t= -1.456	 Mean=3.96 (n=72) Mean=4.32 (n=62) t= -1.210
Bumper Sticker Congruent Incongruent	 Mean=2.16 (n=81) Mean=1.88 (n=50) t= 1.012	 Mean=1.92 (n=65) Mean=1.93 (n=46) t= -.039	 Mean=1.92 (n=72) Mean=2.44 (n=62) t= -1.778
TV Interview Congruent Incongruent	 Mean=5.05 (n=81) Mean=5.10 (n=50) t= -.136	 Mean=4.69 (n=65) Mean=5.20 (n=46) t= -1.265	 Mean=4.89 (n=72) Mean=5.56 (n=62) t= -2.243* df=131

Table 3. Continued.

	Abortion	Affirmative Action	Capital Punishment
Primary Majority			
At a Party Congruent Incongruent	 Mean=4.09 (n=138) Mean=4.09 (n=23) t= .000	 Mean=3.87 (n=129) Mean=3.65 (n=20) t= .514	 Mean=4.00 (n=133) Mean=4.40 (n=30) t= -1.104
Bumper Sticker Congruent Incongruent	 Mean=2.23 (n=138) Mean=1.87 (n=23) t= 1.140	 Mean=1.96 (n=129) Mean=2.10 (n=20) t= -.382	 Mean=2.20 (n=133) Mean=2.40 (n=30) t= -.606
TV Interview Congruent Incongruent	 Mean=5.17 (n=138) Mean=5.00 (n=23) t= .363	 Mean=4.82 (n=129) Mean=4.25 (n=20) t= 1.210	 Mean=5.24 (n=132) Mean=5.47 (n=30) t= -.648
Future Prospect			
At a Party Congruent Incongruent	 Mean=3.73 (n=86) Mean=4.05 (n=85) t= -1.139	 Mean=3.67 (n=97) Mean=4.00 (n=66) t= -1.153	 Mean=3.98 (n=114) Mean=4.29 (n=70) t= -1.085
Bumper Sticker Congruent Incongruent	 Mean=1.94 (n=86) Mean=2.02 (n=85) t= -.339	 Mean=1.75 (n=97) Mean=2.08 (n=66) t= -1.491	 Mean=1.98 (n=114) Mean=2.29 (n=70) t= -1.222
TV Interview Congruent Incongruent	 Mean=5.17 (n=86) Mean=4.81 (n=85) t= 1.154	 Mean=4.94 (n=97) Mean=4.74 (n=66) t= .611	 Mean=4.88 (n=113) Mean=5.24 (n=70) t= -1.267
TV Majority			
At a Party Congruent Incongruent	 Mean=4.03 (n=35) Mean=4.19 (n=53) t= -.427	 Mean=3.70 (n=56) Mean=4.34 (n=38) t= -1.792	 Mean=3.66 (n=50) Mean=4.42 (n=55) t= -2.085* df=103
Bumper Sticker Congruent Incongruent	 Mean=2.06 (n=35) Mean=2.57 (n=53) t= -1.358	 Mean=1.76 (n=55) Mean=1.79 (n=38) t= -.090	 Mean=1.68 (n=50) Mean=2.44 (n=55) t= -2.429* df=92.436
TV Interview Congruent Incongruent	 Mean=4.89 (n=35) Mean=5.77 (n=53) t= -2.107* df=85	 Mean=4.34 (n=56) Mean=4.79 (n=38) t= -1.014	 Mean=4.44 (n=50) Mean=5.58 (n=55) t= -3.180*** df=103

* p<.05; **p<.01; ***p<.005

In the topic of capital punishment, more significant differences were found between people in the congruent opinion climate and those in the incongruent opinion climate. When people perceived that their view was losing support among the U.S. population, they were more likely to put a bumper sticker on their cars to endorse their losing view ($t= -2.171$, $p<.05$). In addition, if people perceived that their view belonged to the U.S. minority opinion, they were more likely to put a bumper sticker on their cars ($t= -2.815$, $p<.01$) and talk to a TV reporter about capital punishment ($t= -2.326$, $p<.05$). This pattern, which was contrary to the spiral of silence phenomenon, was consistently observed when people perceived the majority of local population to be incongruent with their view in the TV interview situation ($t= -2.243$, $p<.05$). Particularly, when people thought that their opinion was not reflected in the majority of TV news programs, they became most expressive of their view in all three situations; at a party ($t= -2.805$, $p<.05$), bumper sticker ($t= -2.429$, $p<.05$), and TV interview ($t= -3.180$, $p<.005$).

Opinion Congruence and Willingness to Speak Out (People with Hardcoreness Tendency Eliminated)

As shown in Table 1, the majority of the sample had the hardcoreness characteristic (71.8 percent in abortion, 62.0 percent in affirmative action, and 69.8 percent in capital punishment). Although people with hardcoreness do not necessarily transform into hardcores in real-life situations, it is expected that they are less likely to behave as the spiral of silence theory stipulates. Therefore, further analysis was conducted after people with hardcoreness were eliminated from the data.

In the topic of abortion, if non-hardcoreness people perceived that their opinion was gaining support among the national population, they were more willing to enter a discussion with an opponent at a party than people in the incongruent opinion climate ($t= 2.196$, $p<.05$). This was the only finding that supported the spiral of silence phenomenon among non-hardcoreness people. In other significant findings, the pattern found among the total sample continued which contradicted the spiral of silence theory. That is, non-hardcoreness people were more willing to express their opinions about abortion by putting a bumper sticker ($t= -2.588$, $p<.05$) and talking to a TV reporter ($t= -3.239$, $p<.01$) when they perceived that the majority of TV news programs did not support their personal opinion. In the affirmative action topic, if non-hardcoreness people perceived that the majority of local residents were opposed to their personal opinion about affirmative action, they were more likely to enter a discussion with an opponent at a party ($t= -2.145$, $p<.05$). Unlike among the total sample, no significant difference was found in the topic of capital punishment among non-hardcoreness people.

The examination of the spiral of silence phenomenon among non-hardcorenss participants revealed that conflicting results with the spiral of silence theory have been decreased significantly as compared to the result based on the total sample. However, this finding should be interpreted with caution because of the small number of subjects in each cell. In some cases, the cell had less than 10 subjects which made meaningful interpretation difficult.

Issue Position and Willingness to Speak Out

Willingness to speak out was compared between people who favored the issue and those who opposed the issue. In the abortion topic, opposers were more willing to express their opinion than favorers; at a party ($t= 2.300$, $p<.05$), bumper sticker ($t= 3.998$, $p<.001$), and TV interview ($t= 2.508$, $p<.05$). In the topic of affirmative action, no significant difference was found between opposers and favorers. For the capital punishment topic, oppoers were more willing to put a bumper sticker on their cars than favorers ($t= 2.639$, $p<.05$) (Table4).

Table 4. Personal Issue Position and Willingness to Speak Out.

	Abortion	Affirmative Action	Capital Punishment
At a Party Opposers Favorers	 Mean=4.17 (n=128) Mean=3.58 (n=73) t= 2.300* df=199	 Mean=3.75 (n=89) Mean=3.86 (n=108) t= -.424	 Mean=4.34 (n=70) Mean=3.89 (n=152) t= 1.812
Bumper Sticker Opposers Favorers	 Mean=2.32 (n=127) Mean=1.55 (n=73) t= 3.998**** df=197.699	 Mean=1.76 (n=89) Mean=2.13 (n=107) t= -1.729	 Mean=2.57 (n=70) Mean=1.89 (n=152) t= 2.639* df=106.191
TV Interview Opposers Favorers	 Mean=5.34 (n=127) Mean=4.60 (n=73) t= 2.508* df=198	 Mean=4.52 (n=89) Mean=4.87 (n=108) t= -1.222	 Mean=5.17 (n=70) Mean=4.91 (n=151) t= .976

* p<.05; **p<.01; ***p<.005; ****p<.001

Expected Hostility and Willingness to Speak Out

Willingness to express one's opinion was compared between people who expected considerable hostility and those who expected less hostility from the opposite camp. The result showed that expected hostility from the opposite camp did not discourage people from speaking out. There was no significant difference in willingness to speak out on topics of abortion and affirmative action depending on the level of expected hostility. On the other hand, in the capital punishment topic, people who expected their opponents to be "very hostile" were more willing to enter a discussion with an opponent at a party ($t= -2.349$, $p<.05$) and put a bumper sticker on their car ($t= -2.321$, $p<.05$) than people who expected their opponents to be "not hostile" (Table 5).

Table 5. Expected Hostility and Willingness to Speak Out.

	Abortion	Affirmative Action	Capital Punishment
At a Party Not hostile Very hostile	 Mean=3.86 (n=42) Mean=3.97 (n=152) t= -.372	 Mean=3.74 (n=47) Mean=3.84 (n=128) t= -.290	 Mean=3.51 (n=61) Mean=4.16 (n=149) t= -2.349* df=208
Bumper Sticker Not hostile Very hostile	 Mean=1.66 (n=41) Mean=2.02 (n=152) t= -1.397	 Mean=2.02 (n=46) Mean=1.81 (n=128) t= .855	 Mean=1.74 (n=61) Mean=2.26 (n=149) t= -2.321* df=140.148
TV Interview Not hostile Very hostile	 Mean=4.71 (n=42) Mean=5.08 (n=152) t= -1.042	 Mean=4.53 (n=47) Mean=4.66 (n=128) t= -.379	 Mean=4.90 (n=61) Mean=5.04 (n=149) t= -.485

* $p<.05$

Perceived Issue Controversy and Willingness to Speak Out

The significant differences between people who saw issues as "not controversial" and "very controversial" were found in the bumper sticker situation in the abortion topic ($t= -2.712$, $p<.05$) and the party situation in the affirmative action topic ($t= -2.615$, $p<.05$). The directions of the significances were the opposite to the expectation of the spiral of silence phenomenon in that the more people considered the topic as controversial, the more they were willing to express their opinions in public (Table 6).

Table 6. Perceived Issue Controversy and Willingness to Speak Out.

	Abortion	Affirmative Action	Capital Punishment
At a Party Not controversial Very controversial	Mean=3.00 (n=7) Mean=3.99 (n=225) t= -1.452	Mean=2.71 (n=17) Mean=3.90 (n=194) t= -2.615* df=209	Mean=3.74 (n=19) Mean=3.97 (n=211) t= -.532
Bumper Sticker Not controversial Very controversial	Mean=1.43 (n=7) Mean=2.04 (n=224) t= -2.712* df=9.578	Mean=1.94 (n=17) Mean=1.86 (n=194) t= .234	Mean=2.00 (n=19) Mean=2.08 (n=211) t= -.196
TV Interview Not controversial Very controversial	Mean=4.29 (n=7) Mean=4.99 (n=224) t= -.907	Mean=4.06 (n=17) Mean=4.58 (n=194) t= -.998	Mean=5.11 (n=18) Mean=4.94 (n=211) t= .371

* $p<.05$

Perceived Issue Importance and Willingness to Speak Out

In the topic of abortion, people who felt the issue to be "personally not important" and "personally very important" were significantly different in their level of willingness to speak out in all three situations; at a party ($t= -2.743$, $p<.05$), bumper sticker ($t= -6.270$, $p<.001$), and TV interview ($t= -3.232$, $p<.005$). These significant differences between the two groups were consistently found in the affirmative action topic; at a party ($t= -2.048$, $p<.05$), bumper sticker ($t= -2.109$, $p<.05$), and TV interview ($t= -4.237$, $p<.001$), and in the capital punishment topic; at a party ($t= -3.613$, $p<.001$), bumper sticker ($t= -6.024$, $p<.001$), and TV interview ($t= -5.572$, $p<.001$) (Table 7).

In the topics of abortion and affirmative action, the question of whether a person considered the topic socially important or not did not make a significant difference in his or her willingness to speak out. However, "socially not important" people were less willing to put a bumper sticker in the topic of capital punishment than "socially very important" people ($t= -2.203$, $p<.05$) (Table 8).

Perceived Issue Knowledge and Willingness to Speak Out

Although not as strong as the personal issue importance brought on people's willingness to speak out, the level of perceived issue knowledge in comparison with the local or national population positively affected people's willingness to speak out in all three topics. In the topic of abortion, "not knowledgeable locally" people were less willing to talk to a TV reporter ($t= -2.855$, $p<.05$) than "very knowledgeable locally" people. The significant differences between the two groups were also found in the affirmative action topic; at a party ($t= -5.225$, $p<.001$) and TV interview ($t= -5.009$,

Table 7. Personal Issue Importance and Willingness to Speak Out.

	Abortion	Affirmative Action	Capital Punishment
At a Party Personally not important Personally very important	Mean=2.86 (n=22) Mean=4.14 (n=180) t= -2.743* df=24.413	Mean=3.55 (n=53) Mean=4.19 (n=134) t= -2.048* df=83.719	Mean=3.00 (n=32) Mean=4.23 (n=162) t= -3.613**** df=192
Bumper Sticker Personally not important Personally very important	Mean=1.18 (n=22) Mean=2.19 (n=180) t= -6.270**** df=90.458	Mean=1.60 (n=53) Mean=2.06 (n=134) t= -2.109* df=116.411	Mean=1.22 (n=32) Mean=2.37 (n=162) t= -6.024**** df=109.186
TV Interview Personally not important Personally very important	Mean=3.86 (n=22) Mean=5.28 (n=180) t= -3.232*** df=200	Mean=3.74 (n=53) Mean=5.17 (n=134) t= -4.237**** df=82.070	Mean=3.58 (n=31) Mean=5.38 (n=162) t= -5.572**** df=191

* p<.05; **p<.01; ***p<.005; ****p<.001

Table 8. Social Issue Importance and Willingness to Speak Out.

	Abortion	Affirmative Action	Capital Punishment
At a Party Socially not important Socially very important	Mean=3.38 (n=8) Mean=4.02 (n=209) t= -1.035	Mean=4.17 (n=18) Mean=3.81 (n=195) t= .814	Mean=3.50 (n=14) Mean=4.01 (n=215) t= -1.014
Bumper Sticker Socially not important Socially very important	Mean=1.63 (n=8) Mean=2.03 (n=208) t= -.747	Mean=1.78 (n=18) Mean=1.89 (n=194) t= -.312	Mean=1.43 (n=14) Mean=2.12 (n=215) t= -2.203* df=17.147
TV Interview Socially not important Socially very important	Mean=4.63 (n=8) Mean=4.98 (n=208) t= -.483	Mean=4.33 (n=18) Mean=4.64 (n=194) t= -.613	Mean=5.08 (n=13) Mean=4.90 (n=215) t= .491

* $p<.05$

p<.001), and in the capital punishment topic; at a party (t= -3.896, p<.001) and TV interview (t= -3.563, p<.005) (Table 9).

In the topic of abortion, "not knowledgeable nationally" people as compared to "very knowledgeable nationally" people were less willing to put a bumper sticker (t= -2.255, p<.05) and to talk to a TV reporter (t= -2.627, p<.05). In the topics of affirmative action and capital punishment, all three situations showed significances; in affirmative action, at a party (t= -3.967, p<.001), bumper sticker (t= -2.061, p<.05), and TV interview (t= -6.525, p<.001), and in capital punishment, at a party (t= -3.148, p<.005), bumper sticker (t= -4.473, p<.001), and TV interview (t= -3.673, p<.005) (Table 10).

Hardcoreness and Willingness to Speak Out

Because the hardcoreness measured by question 17 is a general indication of how willing a person would speak out in the incongruent opinion climate, the level of a person's hardcoreness is expected to have a positive effect on his or her willingness to speak out in the three specific situations of the current study. In the abortion topic, "non-hardcoreness" people as compared to "hardcoreness" people were less willing to enter a discussion with an opponent at a party (t= -2.515, p<.05) and to talk to a TV reporter (t= -11.554, p<.001). In the affirmative action topic, significances were also found at the party situation (t= -2.679, p<.01) and TV interview situation (t= -7.171, p<.001). In the topic of capital punishment, "non-hardcoreness" people were significantly less willing to express their views than "hardcoreness" people in all three situations; at a party (t= -4.422, p<.001), bumper sticker (t= -4.009, p<.001), and TV interview (t= -7.456, p<.001) (Table 11).

Table 9. Perceived Issue Knowledge (local) and Willingness to Speak Out.

	Abortion	Affirmative Action	Capital Punishment
At a Party Not knowledgeable locally Very knowledgeable locally	Mean=3.42 (n=24) Mean=4.12 (n=167) t= -1.812	Mean=2.97 (n=64) Mean=4.36 (n=122) t= -5.225**** df=184	Mean=3.03 (n=32) Mean=4.38 (n=145) t= -3.896**** df=175
Bumper Sticker Not knowledgeable locally Very knowledgeable locally	Mean=1.61 (n=23) Mean=2.10 (n=167) t= -1.441	Mean=1.66 (n=64) Mean=2.03 (n=122) t= -1.634	Mean=1.75 (n=32) Mean=2.36 (n=145) t= -1.830
TV Interview Not knowledgeable locally Very knowledgeable locally	Mean=3.92 (n=24) Mean=5.16 (n=166) t= -2.855** df=188	Mean=3.69 (n=64) Mean=5.19 (n=122) t= -5.009**** df=117.162	Mean=3.91 (n=32) Mean=5.36 (n=144) t= -3.563*** df=40.313

* p<.05; **p<.01; ***p<.005; ****p<.001

Table 10. Perceived Issue Knowledge (national) and Willingness to Speak Out.

	Abortion	Affirmative Action	Capital Punishment
At a Party Not knowledgeable nationally Very knowledgeable nationally	Mean=3.61 (n=28) Mean=4.06 (n=154) t= -1.229	Mean=3.14 (n=65) Mean=4.19 (n=132) t= -3.967**** df=195	Mean=3.32 (n=44) Mean=4.30 (n=145) t= -3.148*** df=187
Bumper Sticker Not knowledgeable nationally Very knowledgeable nationally	Mean=1.52 (n=27) Mean=2.05 (n=154) t= -2.255* df=51.746	Mean=1.60 (n=65) Mean=1.98 (n=132) t= -2.061* df=178.608	Mean=1.48 (n=44) Mean=2.48 (n=145) t= -4.473**** df=121.047
TV Interview Not knowledgeable nationally Very knowledgeable nationally	Mean=3.93 (n=28) Mean=5.16 (n=153) t= -2.627* df=34.368	Mean=3.35 (n=65) Mean=5.20 (n=132) t= -6.525**** df=195	Mean=4.16 (n=44) Mean=5.49 (n=145) t= -3.673*** df=56.025

* p<.05; **p<.01; ***p<.005; ****p<.001

Table 11. Hardcoreness and Willingness to Speak Out.

	Abortion	Affirmative Action	Capital Punishment
At a Party Non-hardcoreness Hardcoreness	Mean=3.41 (n=46) Mean=4.15 (n=171) t= -2.515* df=215	Mean=3.31 (n=59) Mean=4.06 (n=145) t= -2.679** df=202	Mean=2.89 (n=37) Mean=4.31 (n=169) t= -4.422**** df=204
Bumper Sticker Non-hardcoreness Hardcoreness	Mean=1.67 (n=46) Mean=2.09 (n=170) t= -1.946	Mean=1.68 (n=59) Mean=2.03 (n=145) t= -1.697	Mean=1.43 (n=37) Mean=2.34 (n=169) t= -4.009**** df=79.018
TV Interview Non-hardcoreness Hardcoreness	Mean=2.76 (n=46) Mean=5.74 (n=170) t= -11.554**** df=214	Mean=3.12 (n=59) Mean=5.18 (n=145) t= -7.171**** df=202	Mean=3.03 (n=37) Mean=5.61 (n=169) t= -7.456**** df=43.647

* p<.05; **p<.01; ***p<.005; ****p<.001

Fear of Isolation and Willingness to Speak Out

According to the spiral of silence theory, people who fear isolation should be less willing to speak out than people who do not fear isolation. However, in the topics of abortion and capital punishment, the level of a person's fear of isolation did not have a significant effect on his or her willingness to speak out. In the topic of affirmative action, the "no fear" group was less willing to put a bumper sticker on a car ($t= -2.078$, $p<.05$) than the "afraid" group, which contradicted the spiral of silence phenomenon (Table 12).

Gender and Willingness to Speak Out

No gender difference was found except for the TV interview situation on the topic of capital punishment. Male participants were more willing to be interviewed by a TV reporter than female participants about capital punishment ($t= 3.905$, $p<.001$) (Table 13).

Political Affiliation and Willingness to Speak Out

Differences among political parties (Republicans, Democrats, and Independents) were examined. In the topic of abortion, Republicans and Independents were more willing to enter a discussion with an opponent at a party than Democrats ($f=3.085$, $p<.05$). In the affirmative action topic, Democrats and Independents were more willing to talk to a TV reporter than Republicans ($f=3.174$, $p<.05$) (Table 14).

To find out the relationships between people's political affiliation and the main variables of the current study, ANOVA was used. More specifically, Republicans, Democrats, and Independents were compared in terms of their hardcoreness, fear of isolation, authoritarian personality, interdependent self-construal, and independent self-

Table 12. Fear of Isolation and Willingness to Speak Out.

	Abortion	Affirmative Action	Capital Punishment
At a Party No fear Afraid	Mean=4.01 (n=166) Mean=4.42 (n=33) t= -1.245	Mean=3.63 (n=177) Mean=4.26 (n=27) t= -1.687	Mean=3.91 (n=177) Mean=4.06 (n=34) t= -.412
Bumper Sticker No fear Afraid	Mean=2.01 (n=165) Mean=2.12 (n=33) t= -.367	Mean=1.72 (n=176) Mean=2.48 (n=27) t= -2.078* df=30.427	Mean=2.14 (n=177) Mean=1.74 (n=34) t= 1.331
TV Interview No fear Afraid	Mean=5.20 (n=166) Mean=4.64 (n=33) t= 1.464	Mean=4.50 (n=177) Mean=4.70 (n=27) t= -.461	Mean=5.03 (n=176) Mean=5.09 (n=34) t= -.168

* p<.05

Table 13. Gender and Willingness to Speak Out.

	Abortion	Affirmative Action	Capital Punishment
At a Party Males Females	Mean=4.04 (n=108) Mean=3.85 (n=130) t= .791	Mean=3.74 (n=101) Mean=3.80 (n=132) t= -.255	Mean=3.91 (n=100) Mean=3.94 (n=141) t= -.136
Bumper Sticker Males Females	Mean=1.98 (n=108) Mean=2.02 (n=129) t= -.210	Mean=1.80 (n=100) Mean=1.92 (n=132) t= -.658	Mean=2.18 (n=100) Mean=1.99 (n=141) t= .886
TV Interview Males Females	Mean=4.95 (n=107) Mean=4.96 (n=130) t= -.031	Mean=4.55 (n=101) Mean=4.48 (n=132) t= .284	Mean=5.45 (n=99) Mean=4.55 (n=141) t= 3.905**** df=236.532

* p<.05; **p<.01; ***p<.005; ****p<.001

Table 14. Political Affiliation and Willingness to Speak Out.

	Abortion	Affirmative Action	Capital Punishment
At a Party Republicans Democrats Independents	Mean=4.14 (n=130) Mean=3.45 (n=53) Mean=4.14 (n=35) f= 3.085* df=2, 215	Mean=3.43 (n=88) Mean=3.82 (n=61) Mean=4.21 (n=39) f= 2.849	Mean=4.01 (n=112) Mean=4.09 (n=55) Mean=3.51 (n=45) f= 1.484
Bumper Sticker Republicans Democrats Independents	Mean=2.08 (n=129) Mean=1.74 (n=53) Mean=1.91 (n=35) f= 1.029	Mean=1.70 (n=88) Mean=2.00 (n=61) Mean=1.77 (n=39) f= .859	Mean=1.95 (n=112) Mean=1.96 (n=55) Mean=2.04 (n=45) f= .071
TV Interview Republicans Democrats Independents	Mean=5.22 (n=129) Mean=4.89 (n=53) Mean=4.51 (n=35) f= 1.906	Mean=4.11 (n=88) Mean=4.89 (n=61) Mean=4.79 (n=39) f= 3.174* df=2, 185	Mean=5.08 (n=112) Mean=4.60 (n=55) Mean=4.93 (n=45) f= 1.235

* $p<.05$

construal. A person's political affiliation affected on his or her level of authoritarian personality ($f=63.095$, $p<.001$) and interdependent self-construal ($f=3.824$, $p<.05$). Specifically, Democrats were less authoritarian than Republicans and more authoritarian than Independents whereas Republicans emphasized their interdependent self-construal more than Independents (Table 15).

Media Usage and Willingness to Speak Out

The effect of a person's TV and Internet usage in getting political information was examined. In the topic of abortion, while no significant difference was found in willingness to speak out between TV users and TV nonusers, Internet users were more willing to enter a discussion with an opponent at a party than Internet nonusers ($t= 3.137$, $p<.005$). In affirmative action, TV users were more willing to enter a discussion with an opponent at a party than TV nonusers ($t= 2.655$, $p<.01$) whereas there was no significant difference between Internet users and Internet nonuesrs. In the topic of capital punishment, TV users were more willing to be interviewed by a TV reporter than TV nonusers ($t= 3.000$, $p<.01$) while Internet users were more willing to enter a discussion at a party ($t= 3.329$, $p<.005$) and to talk to a TV reporter than Internet nonusers ($t= 2.098$, $p<.05$) (Tables 16 and 17).

Whether a person's media usage affected his or her perceived issue knowledge or not was examined using correlation analysis. Media usage was significantly correlated with the perceived issue knowledge. In other words, the more a person used TV or the Internet for getting political information, the more he or she was likely to perceive a

Table 15. Differences among Political Party Affiliations.

		Degree of Freedom	Mean Square	F	Signifi-cance
Hardcoreness	Between Groups Within Groups Total	2 615 617	1.988 3.161	.629	.534
Fear of Isolation	Between Groups Within Groups Total	2 615 617	1.150 2.557	.450	638
Authoritarian Personality	Between Groups Within Groups Total	2 615 617	65.664 1.041	63.095	.000
Interdependent Self-construal	Between Groups Within Groups Total	2 615 617	2.306 .603	3.824	.022
Independent Self-construal	Between Groups Within Groups Total	2 615 617	.537 .802	.670	.512

Table 16. TV Usage and Willingness to Speak Out.

	Abortion	Affirmative Action	Capital Punishment
At a Party TV users TV nonusers	 Mean=4.04 (n=176) Mean=3.65 (n=62) t= 1.508	 Mean=3.99 (n=166) Mean=3.31 (n=68) t= 2.655** df=232	 Mean=4.02 (n=180) Mean=3.67 (n=61) t= 1.152
Bumper Sticker TV users TV nonusers	 Mean=1.98 (n=175) Mean=2.08 (n=62) t= -.458	 Mean=1.95 (n=165) Mean=1.71 (n=68) t= 1.195	 Mean=1.97 (n=180) Mean=2.38 (n=61) t= -1.475
TV Interview TV users TV nonusers	 Mean=5.09 (n=175) Mean=4.58 (n=62) t= 1.716	 Mean=4.68 (n=166) Mean=4.13 (n=68) t= 1.865	 Mean=5.16 (n=179) Mean=4.23 (n=61) t= 3.000** df=87.679

* p<.05; **p<.01

Table 17. Internet Usage and Willingness to Speak Out.

	Abortion	Affirmative Action	Capital Punishment
At a Party Internet users Internet nonusers	Mean=4.42 (n=83) Mean=3.68 (n=155) t= 3.137*** df=236	Mean=4.12 (n=75) Mean=3.64 (n=159) t= 1.934	Mean=4.54 (n=61) Mean=3.72 (n=180) t= 3.329*** df=125.194
Bumper Sticker Internet users Internet nonusers	Mean=2.05 (n=83) Mean=1.98 (n=155) t= .325	Mean=1.99 (n=74) Mean=1.83 (n=159) t= .777	Mean=2.44 (n=61) Mean=194 (n=180) t= 1.887
TV Interview Internet users Internet nonusers	Mean=5.24 (n=83) Mean=4.81 (n=155) t= 1.589	Mean=4.65 (n=75) Mean=4.46 (n=159) t= .674	Mean=5.36 (n=61) Mean=4.77 (n=179) t= 2.098* df=238

* p<.05; **p<.01; ***p<.005

Table 18. Correlations between Media Usage and Perceived Issue Knowledge.

	Issue Knowledge (Local)	Issue Knowledge (National)
TV Usage	.219***	.243****
Internet Usage	.219***	.257****

* p<.05; **p<.01; ***p<.005; **** p<.001

higher level of issue knowledge than a person who did not use TV or the Internet for the same purpose (Table 18).

In summary, people did not fear isolation and subsequently they were not discouraged to speak out although they perceived controversy and hostility related to the issue discussion. Perceived opinion climate influenced people's willingness to speak out as the spiral of silence theory envisions. However, the direction of the significance was the opposite to the expectation of the spiral of silence theory: people were more willing to speak out when they perceived the incongruent opinion climate. Therefore, the findings of the current study rejected the spiral of silence theory.

Hypotheses Testing

In this section, the four hypotheses of the current study are examined. Data is analyzed separately from topic to topic except for the hypothesis 3.

Interdependent and Independent Self-Construals

H1: Individuals who emphasize their independent self-construal are more willing to speak out than individuals who emphasize their interdependent self-construal.

To test Hypothesis 1, willingness to speak out was compared between people who emphasized their independent self-construal only (*Independent Emphasis*) and people who emphasized their interdependent self-construal only (*Interdependent Emphasis*) in the three situations (at a party, bumper sticker, and TV interview).

In the topic of abortion, *Independent Emphasis* individuals were more willing to speak out in all three situations; at a party ($t= 2.437$, $p<.05$), bumper sticker ($t= 2.675$, $p<.01$), and TV interview ($t= 1.983$, $p<.05$). However, in affirmative action there was no significant difference between *Independent Emphasis* individuals and *Interdependent Emphasis* individuals. In the capital punishment topic, *Independent Emphasis* individuals were more willing to express their views than *Interdependent Emphasis* individuals in all three situations; at a party ($t= 2.594$, $p<.05$), bumper sticker ($t= 3.529$, $p<.005$), and TV interview ($t= 3.468$, $p<.005$) (Table 19).

Independent Self-Construal and Hardcoreness

H2: The more independent self-construal the individuals emphasize, the more tendency they have to be hardcores.

The relationship between a person's emphasis on independent self-construal and hardcoreness was examined through correlation analysis. A person's emphasis on independent self-construal was measured by the mean of the eight independent self-construal items whereas a person's hardcoreness was assessed with likelihood of speaking out when all people in a group opposed to his or her opinion (through question 17 of the first section in Appendix B).

Table 19. Self-Construal and Willingness to Speak Out.

	Abortion	Affirmative Action	Capital Punishment
At a Party Independent S-C Emphasis Interdependent S-C Emphasis	Mean=4.25 (n=99) Mean=3.40 (n=39) t= 2.437* df=134	Mean=3.95 (n=105) Mean=3.61 (n=28) t= 0.880	Mean=4.38 (n=106) Mean=3.46 (n=30) t= 2.594* df=136
Bumper Sticker Independent S-C Emphasis Interdependent S-C Emphasis	Mean=1.94 (n=99) Mean=1.37 (n=39) t= 2.675** df=86.809	Mean=1.84 (n=105) Mean=1.82 (n=28) t= 0.057	Mean=2.44 (n=105) Mean=1.56 (n=30) t= 3.529*** df=122.336
TV Interview Independent S-C Emphasis Interdependent S-C Emphasis	Mean=5.35 (n=98) Mean=4.57 (n=39) t= 1.983* df=133	Mean=4.74 (n=105) Mean=4.29 (n=28) t= 1.036	Mean=5.38 (n=105) Mean=4.05 (n=30) t= 3.468***df=57.676

* p<.05; **p<.01; ***p<.005

Although a person's tendency of becoming a hardcore could be observed in congruent situations as well as incongruent situations, a hardcore envisioned in the spiral of silence theory is only genuinely distinguishable when the opinion climate is perceived to be incongruent. Therefore after the correlation between independent self-construal and hardcoreness had been examined among all participants, the same relationship was examined only among study participants in the incongruent opinion climate. As explained in the method section, there are six congruent/incongruent dichotomous situations; *U.S. Trend, U.S. Majority*, *Local Majority*, *Primary Majority*, *Future Prospect*, and *TV Majority* (see p. 61 for detailed definitions).

In the topic of abortion, a person's emphasis on independent self-construal was significantly correlated with his or her hardcoreness when it was viewed among all subjects ($r = .271$, $p < .001$, Table 20). This positive correlation was consistently observed when a person perceived the incongruent opinion climate in *U.S. Trend* ($r = .405$, $p < .05$), *U.S. Majority* ($r = .350$, $p < .01$), and *Future Prospect* ($r = .341$, $p < .005$). However, no significant relationship was found when a person perceived the incongruent opinion climate in *Local Majority*, *Primary Majority*, and *TV Majority*. This indicates that if there is no support from the majority of local population, family and friends, or mass media, the effect of a person's independent self-construal on his or her willingness to speak out becomes irrelevant or at least significantly weakened in the topic of abortion.

In the topic of affirmative action, a person's independent self-construal was positively correlated with his or her hardcoreness among all subjects ($r = .208$, $p < .005$). This positive correlation between independent self-construal and hardcoreness continued to be found in the perceived incongruent opinion climate in *U.S. Trend* ($r = .296$, $p < .05$),

Table 20. Correlations between Independent Self-Construal and Hardcoreness.

		Abortion	Affirmative Action	Capital Punishment
	Independent Self-Construal	Hardcoreness		
Total Sample		r=.271****, n=238	r=.208***, n=234	r=.336****, n=242
In the Incongruent Opinion Climate				
U.S. Trend		r=.405*, n=39	r=.296*, n=58	r=.299*, n=46
U.S. Majority		r=.350**, n=56	r=.336*, n=46	r=.480****, n=52
Local Majority		r=.241, n=50	r=.239, n=46	r=.131, n=62
Primary Majority		r=.232, n=23	r=.080, n=20	r=.282, n=30
Future Prospect		r=.341***, n=85	r=.354***, n=66	r=.262*, n=70
TV Majority		r=.249, n=53	r=.119, n=38	r=.527****, n=55

* p<.05; **p<.01; ***p<.005; ****p<.001

U.S. Majority (r= .336, p<.05), and *Future Prospect* (r= .354, p<.005) while no significant correlations were found in the perceived incongruent opinion climate in *Local Majority*, *Primary Majority*, and *TV Majority,* which was the same pattern observed in the abortion topic.

In capital punishment, the positive correlation was observed between a person's independent self-construal and hardcoreness among all participants (r= .336, p<.001). In the perceived incongruent opinion climate, the correlations between independent self-construal and hardcoreness were also significantly positive in *U.S. Trend* (r= .299, p<.05), *U.S. Majority* (r= .480, p<.001), *Future Prospect* (r= .262, p<.05), and *TV Majority* (r= .527, p<.001). No significant correlations were found in the incongruent opinion climate in *Local Majority* and *Primary Majority*. The only difference of the capital punishment topic, as compared to the other two topics, was that a person's

independent self-construal becomes a positive factor in his or her hardcoreness in the incongruent opinion climate in *TV Majority* (Table 20).

Authoritarian Personality and Willingness to Speak Out

H3: The more authoritarian the individuals are, the less likely they speak out their opinion when they are perceived to belong to the minority opinion and the more likely they speak out their opinion when they are perceived to belong to the majority opinion.

The MANOVA was used to test the hypothesis 3. A person's affiliation with the congruence/incongruence dichotomy and the level of the RWA scale were selected as fixed factors.

The congruence/incongruence dichotomy variables excluded many participants in the analysis, for many people answered with "about fifty-fifty" or "impossible to say" to the questions about the opinion climate, which made it impossible for them to be classified into the dichotomy. When the data were analyzed using the MANOVA for each topic, each cell, which was produced by the interaction between the congruence/incongruence dichotomy and the RWA level, tended to have a very small number of respondents. For a meaningful analysis, the total number of the sample (n=714) was used in testing hypothesis 3. Combining the samples across the three topics was not an unreasonable jump because Noelle-Neumann argues that people in any controversial topic should behave in a similar way as envisioned in the spiral of silence theory.

The interaction effect was found between the congruence/incongruence dichotomy in *U.S. Trend* and the RWA level in the TV interview situation (f=5.211,

p<.01). That is, while low- and middle-authoritarians were more willing to talk to a TV reporter when they perceived that their opinion was losing support among the U.S. population, high-authoritarians were more willing to be interviewed by a TV reporter when their opinion was perceived to be gaining support among the U.S. population as hypothesis 3 anticipated (Figure 2). The essence of hypothesis 3 was that there should be an interaction effect between the level of authoritarian personality and the congruence/incongruence dichotomy if public opinion is a form of an authority. Only the *U.S. Trend* variable among six congruence/incongruence variables showed such an interaction (Table 21).

Authoritarian Personality and Hardcoreness

H4: The more authoritarian the individuals are, the less tendency they have to be hardcores.

Hypothesis 4 is based on the same logic behind hypothesis 3. That is, low-authoritarians than high-authoritarians will be more likely to speak out in the incongruent opinion climate which is the essence of a hardcore. As in the analysis of hypothesis 2, hypothesis 4 was tested using correlation analysis between the mean of 10 RWA items and hardcoreness measured by question 17.

In the topic of abortion, no significant correlation was found between a person's authoritarian personality and hardcoreness whether the analysis was conducted among the total sample or among the respondents who are in the incongruent opinion climates only.

In affirmative action, a person's authoritarian personality was negatively correlated with his or her hardcoreness among the total sample (r= -.161, p<.05). This

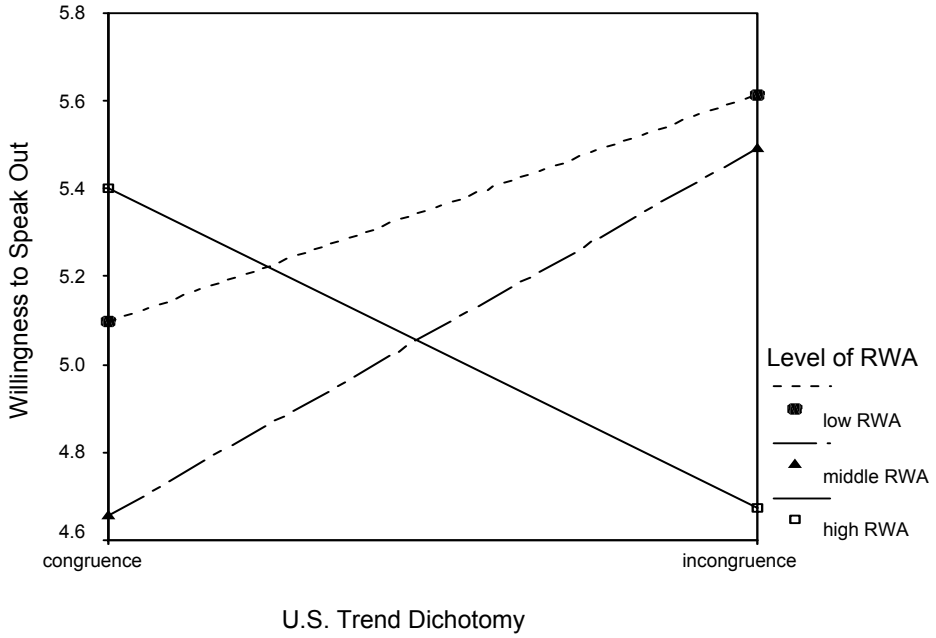

Figure 2. Interaction between U.S. Trend and Authoritarian Personality in the TV Interview Situation.

Table 21. The Effect of Authoritarian Personality and the Congruent/Incongruent Opinion Climate in the U.S. Trend on Willingness to Speak Out.

Source	Dependent Variable	Degree of Freedom	Mean Square	F	Significance
Corrected Model	At a Party	5	5.488	1.735	.126
	Bumper Sticker	5	3.448	1.439	.210
	TV Interview	5	9.871	2.875	.015
Intercept	At a Party	1	4401.879	1392.083	.000
	Bumper Sticker	1	1144.284	477.535	.000
	TV Interview	1	6836.235	1991.307	.000
U.S. Trend (Congruence/ Incongruence)	At a Party	1	6.687E-03	.002	.963
	Bumper Sticker	1	4.153	1.733	.189
	TV Interview	1	2.832	.825	.364
Authoritarian Personality	At a Party	2	9.910	3.134	.045
	Bumper Sticker	2	2.415	1.008	.366
	TV Interview	2	2.045	.596	.552
U.S. Trend X Authoritarian Personality	At a Party	2	3.932	1.244	.290
	Bumper Sticker	2	1.152	.481	.619
	TV Interview**	2	17.890	5.211	.006

* p<.05; **p<.01

negative correlation held true when the opinion climate was perceived to be incongruent in *U.S. Trend* (r= -.263, p<.05), *U.S. Majority* (r= -.308, p<.05), and *Local Majority* (r= -.333, p<.05).

In capital punishment, a negative correlation was found among the total sample (r= -.190, p<.005). The negative correlation between authoritarian personality and hardcoreness continued to be found when a person perceived the incongruent opinion climate in *U.S. Trend* (r= -.448, p<.005), *Primary Majority* (r= -.393, p<.05), *Future Prospect* (r= -.245, p<.05), and *TV Majority* (r= -.301, p<.05) (Table 22).

Table 22. Correlations between Authoritarian Personality and Hardcoreness

		Abortion	Affirmative Action	Capital Punishment
		Hardcoreness		
Total Sample	Authoritarian Personality	r=.000, n=238	r=-.161*, n=234	r=-.190***, n=242
In the Incongruent Opinion Climate				
U.S. Trend		r=.088, n=39	r=-.263*, n=58	r=-.448***, n=46
U.S. Majority		r=.074, n=56	r=-.308*, n=46	r=-.261, n=52
Local Majority		r=.035, n=50	r=-.333*, n=46	r=-.198, n=62
Primary Majority		r=.015, n=23	r=-.018, n=20	r=-.393*, n=30
Future Prospect		r=.052, n=85	r=-.200, n=66	r=-.245*, n=70
TV Majority		r=.044, n=53	r=-.073, n=38	r=-.301*, n=55

*p<.05; **p<.01; ***p<.005

CHAPTER V

DISCUSSION

The Spiral of Silence Theory Challenged

In the previous chapter, the overall spiral of silence theory was examined to see how the theory holds in the current environment. The findings of the current study showed little support for the spiral of silence theory.

The main thesis of the theory is that a person is likely to be silent if the opinion climate about a controversial topic is perceived to be incongruent with his or her personal opinion. In each topic, there were eighteen possible cases in which people in the congruent opinion climate and those in the incongruent opinion climate could be compared to test the theory (see Table 3). Only one significant difference in abortion, none in affirmative action, and seven significant differences in capital punishment were found. When there was significance, to add to one's surprise, the direction of the significance was consistently opposite to the expectation of the spiral of silence theory. In general, people became more vocal on the topic of capital punishment when the opinion climate was perceived to be incongruent while people's perception of the opinion climate about abortion and affirmative action had little effect on their willingness to speak out. This conflicting result with the spiral of silence process has been continued even when the data were reexamined using only people who did not show hardcoreness characteristics.

Some possible reasons for these unexpected findings are discussed. First, the sample of this study was composed of college-educated and young people (mean

age=21.81) who have been found to be more expressive than the general public in the past (Lasorsa, 1991; Neuwirth, 1995; Noelle-Neumann, 1974).

Second, the opinion distribution of the sample for the three topics indicated that the participants were conservative in general. Although there is little reason to believe that conservative people would be more expressive of their opinions on controversial topics in the incongruent opinion climate, this characteristic of the sample might have caused or intensified the contradictory findings of the study. For example, conservative people could defend their views on some topics such as abortion more fiercely than others if the opinion climate is perceived to be unfavorable. In fact, the findings revealed that people who were opposed to abortion were more willing to speak out in all three public situations than people who favored abortion. However, this finding in which conservative people were more expressive of their opinions was not observed in the topics of affirmative action and capital punishment that defied the universal interpretation about the relationship between conservativeness and willingness to speak out.[38]

Third, the survey design for this study was voluntary which might have made assertive people more willing to participate in the survey while people who were likely to be silent about a controversial issue in reality might have tended to shun from the survey participation when they found out what the survey was about. This speculation could be evidenced by the data in that the majority of the participants showed hardcoreness and little fear of isolation that deepened the discrepancy between the spiral of silence process and the findings of the current study. However, this speculation lacks in the capacity of

[38] In this study, conservative people were thought to be more likely to oppose abortion rights and affirmative action programs and to favor capital punishment. However, this classification was only intended to simplify the description of the current sample because some people who were classified as conservatives in this study could assume liberal views on other social issues.

general explanation about the findings because many studies in the past also used the survey design.

Fourth, simply the world described in the spiral of silence theory may not represent the real world, at least the U.S. society. One of assumptions in the spiral of silence process is that the society will punish deviant behaviors with social isolation. Csikszentmihalyi (1991) argued that different societies have their definition of deviance and thus, they have different levels of tolerance to deviance. In the U.S., the level of tolerance for unfamiliar or minority views is greater than in many other regions of the world. This characteristic of the U.S. could have caused the unexpected findings of the current study because in this environment, people would feel freer to talk about what they believe in public whether they perceive the congruent or incongruent opinion climate. The U.S. society may have changed a lot since Tocqueville (2000) observed its system and people pessimistically.

The spiral of silence theory conjectures that people should show similar behavioral patterns on any controversial topic because controversy for any topic increases a person's fear of isolation which is the fundamental motivation of human behavior. However, the three topics in this study triggered very different behavioral patterns in the participants. This finding indicated that it would be inappropriate to compare the results of one study to another if the issue of the studies was not the same.

One of Noelle-Neumann's assumptions is that hardcores who are not likely to behave according to the spiral of silence process are very few in society. If, therefore, hardcores are found to be many as in the current study, the spiral of silence process could not explain the societal public opinion process.

Among the three dependent variables, it was expected that people were more likely to express their opinions in the TV interview situation than in the other two situations. The TV interview situation was expected to arouse the biggest fear of isolation among the three situations because of its high level of publicness. One's asserted opinion through a TV interview can be viewed at potentially every household that has a TV set. Furthermore, the TV interview could be stored and broadcast many more times. The reason why people were more willing to speak to a TV reporter than with an opponent at a party is discussed in the following section.[39]

People might have been more sensitive in interpersonal communications than in impersonal communications (e.g., TV interview). Although a TV interview could bring interpersonal conflict later derived from the interview content, the person is not involved in direct conflict with another person at the moment of the interview. Second, many people in the U.S. seem to be willing to endure various backlashes in exchange for any publicity. A TV interview is one of the best ways to be public in the contemporary U.S. society. Third, people might have become more cynical about the media and its authority. In this scenario, people might have felt that they should speak out against the biased totality of the media that did not represent their views.

Expected hostility in this study was interpreted as an indication of threat of isolation not as fear of isolation. However, if there is a positive relationship between threat of isolation and fear of isolation, the more people expect hostility from the opposite camp, the more they should refrain from speaking out. However, this fundamental thesis

[39] People's willingness to put a bumper sticker on their cars was complicated by the fact that many people did not want to put a bumper sticker on their cars not because they were concerned about reactions from others but because they just did not like the idea.

of the spiral of silence theory was not observed in the topics of abortion and affirmative action (Table 5). That is, whether or not people expected threat of isolation in speaking out, the expectation did not affect their willingness to speak out. Furthermore, in capital punishment, the more people felt threat of isolation in the discussion of the topic, the more they became expressive of their opinions in public which was contrary to the spiral of silence process. Some differences between the capital punishment issue and the other two issues are pointed out as possible reasons why expected hostility increased people's willingness to speak out on the topic of capital punishment.

More than three times as many of the participants perceived that the majority of U.S. population were in favor of capital punishment as compared to the number of people who perceived that the majority of U.S. population were opposed to capital punishment whereas the numbers of the two groups in abortion and affirmative action were similar. Furthermore, while people's estimation of the opinion climates in abortion and affirmative action were conflicting depending on different opinion climates, people perceived a uniform opinion climate about capital punishment in various circumstances. In all six opinion-climates, the number of people who estimated that the majority would favor capital punishment was always bigger than the number of people who estimated that the majority would oppose capital punishment. This clear opinion climate in the topic of capital punishment might have increased the confidence of people and made them disregard hostility from the minority camp which was hypothesized as the majority in the survey. Capital punishment was also considered the most important topic socially among the three topics that was found to be influential on a person's willingness to speak out.

If people perceived the topic to be personally important, they were more likely to speak out in all three situations among all three topics. These consistent findings revealed that people were more expressive of their opinions when the topic was perceived to be personally important whatever the opinion climate was. Although significances were found between people who thought the topic socially important and those who thought otherwise in the topic of capital punishment, the relationship between social importance and willingness to speak out was much weaker than the relationship between personal importance and willingness to speak out.

The spiral of silence theory posits that people's fear of isolation is the driving force that causes people to scan the opinion climate and adjust their opinions and behaviors according to their perception of the opinion climate. This premise indicates that people who have fear of isolation would be less vocal in public than those who do not fear isolation. In the topics of abortion and capital punishment, no significant difference between the two groups was found while in the topic of affirmative action, people who fear isolation were more willing to put a bumper sticker on their cars than people who do not fear isolation (Table 12). These findings imply that fear of isolation may not be the defining human characteristic that determines people's behavior and opinion on controversial issues.

In fact, many scholars pointed out that other motivations could cause people to behave in accordance with the spiral of silence process (Kim, 1999; Glynn & McLeod, 1985; Price & Allen, 1990; Salmon & Kline, 1985; Salmon & Oshagan, 1990; Taylor, 1982). Examples of negative sanctions were conflict avoidance, fear of appearing ignorant, fear of hurting others while examples of positive sanctions were social approval

or personal benefits of issue resolution. A common limitation of these various motivations was that they did not question the main thesis of the spiral of silence process. That is, these scholars assumed that most people tended to be silent in the incongruent opinion climate. However, because the current study revealed that the spiral of silence process worked in the opposite direction from the expectation of the process, a new perspective is necessary to explain the findings of the current study.

Two possible motivations are suggested. First, people may want to defend their views in the incongruent opinion climate because they feel responsible in defending their views and persuading people who are undecided or have an opposite view. A fundamental reason for this motivation could be based on a person's social responsibility or desire to confirm individual self-worth. Second, people may want to be unique among the public by professing their minority or unpopular view. They are motivated by the incongruent opinion climate because in congruent climate speaking out their majority view would not make them stand out.

According to the past studies on the spiral of silence theory, males were more willing to express their views on controversial topics than females (Neuwirth, 1995; Noelle-Neumann, 1974). This pattern was only observed in the TV interview situation of the capital punishment topic. The rare difference between genders in the current study indicated that females have become more expressive of their views in public. Although the difference of the social expectation for each gender has been narrowed in recent decades, many parts of the world still preach that women should be more discreet in their words and behaviors in public than men. Therefore, this rare difference between genders in the current study might not be replicated in other parts of the world.

In the effect of political party affiliations, Republicans and Independents were more willing to enter a discussion with an opponent at a party than Democrats in the topic of abortion while Democrats and Independents were more willing to talk to a TV reporter than Republicans about the affirmative action topic (Table 14). This indicates that Republicans felt more strongly about the abortion issue than Democrats and Democrats felt more strongly about the affirmative action issue than Republicans; whereas, Independents were always more willing to speak out than others. Further analyses ascertained that Independents were less authoritarian than people of the two major parties and less likely to emphasize their interdependent self-construal than Republicans.

People who used TV or the Internet for seeking political information were more willing to speak out than people who did not use those media for getting political information. This finding was expected because of the high level of correlation between media usage and perceived issue knowledge.

This study examined the spiral of silence process using six different congruence/incongruence dichotomous variables. In general, the study participants behaved differently in each circumstance in relation to each topic. This finding indicated that some of past studies in which the spiral of silence process was examined using only one or two congruence/incongruence variables could have missed significant findings that in fact existed.

The current study almost thoroughly rejected the propositions of the spiral of silence theory. These findings prompt the question of why then there have been so much interest in the theory for 30 years? First of all, the theory sounds very attractive and plausible because examples of the spiral of silence process seem abundant in reality.

Although we, academic scholars, would not change our opinions according to the perceived opinion climate, it was not difficult for us to imagine the general public who would conform to the pressure of public opinion. The third person effect among academicians about the general public could explain high interest about the theory for such a long time.

Second, many researchers, actually, found the spiral of silence phenomenon working in their research. However, this evidence of the theory should be interpreted with discretion. In general, the research projects done in countries outside the U.S. were more likely to show spiral of silence process than the research in the U.S. In the current study, it was found that interdependent self-construal individuals were more likely to be silent in the incongruent opinion climate than independent self-construal individuals. Considering the conceptual linkage between individualism/collectivism and independent/interdependent self-construal, it could be reasoned that studies in collectivistic countries were more likely to find support for the spiral of silence theory. Studies in these collectivistic countries could have prevented the theory from fading away from the field of communication research by feeding ammunition for the survival of the theory. To deepen the discussion of this point, future researchers should replicate the current study in other parts of the world too.

Third, many studies which found support for the theory often used correlation or regression analysis. These methods are more likely to pick up the significant differences than the mean comparison tests such as t-test or ANOVA. This methodological consideration might have exaggerated the presence of the spiral of silence process in the past studies.

Despite the overall negation of the spiral of silence theory, the current study revealed that the perception of the opinion climate was still an important factor which people used in determining their behavior in public. But contrary to the expectations of the spiral of silence process, the incongruent opinion climate made people to speak out rather than to be silent.

The Hypotheses of the Current Study Discussed

This study sought to investigate the effect of personality on the spiral of silence process. Despite the seemingly obvious link between personality and this social phenomenon, personality has been a minor focus in the studies of the spiral of silence theory. The effect of the two personality constructs, authoritarian personality and self-construal, have been examined in the current study.

The findings revealed that independent self-construal had a positive effect on willingness to speak out in the topics of abortion and capital punishment, but not in affirmative action. The reason why independent self-construal has shown little effect in the affirmative action issue can be found from the issue characteristic of the affirmative action programs. The affirmative action programs were initiated to overcome consequences of the past societal discrimination. As Park (1998) found in the "economic aid to North Korea" issue, when the issue was about group unity or concern for others, people with high interdependent self-construal were more likely to speak out than people with low interdependent self-construal while the effect of independent self-construal on willingness to speak out became irrelevant. This indicates that researchers should ask first

whether the issue is about interdependence of social members or mainly about independent beliefs to understand the effect of independent self-construal.

The positive correlation between independent self-construal and hardcoreness was found in all three topics. Specifically, when the incongruent opinion climate was perceived among the national population or the incongruent opinion climate was expected in the future, dependent self-construal was a positive factor in increasing people's willingness to speak out. However, if there was no perceived support from local population, family and close friends, and mass media (except for the capital punishment topic in the case of mass media), the effect of independent self-construal on willingness to speak out became irrelevant or at least significantly weakened.

If public opinion is an authority as the spiral of silence theory indicates, authoritarian people are more likely to be influenced by the fluctuation of public opinion than non-authoritarian people. In other words, authoritarian people are more likely to speak out when they perceive the congruent opinion climate while they are more likely to be silent in the incongruent opinion climate because they would not refute the public opinion that is confirmed by the majority of social members. The current study showed that authoritarian people adjusted their willingness to speak out depending on their perception of the opinion climate in *U.S. Trend*. That is, highly authoritarian people were more likely to be interviewed by a TV reporter when their opinion was perceived to be gaining support among the U.S. population while they avoided a TV interview when their opinion was perceived to be losing support.

However, this was very weak evidence for hypothesis 3 because this was the only significant finding out of 18 possible cases. Therefore, it is difficult to say that the

participants considered public opinion as a form of an authority. They might have regarded public opinion as an authority but its importance among various authorities might have not been crucial in determining their behavior and opinion. Future research needs to examine the relationship between public opinion as an authority and other authorities in society and the influence of each authority on people's willingness to speak out.

In the topics of affirmative action and capital punishment, the direction of the correlation between authoritarian personality and hardcoreness was consistently negative. In other words, high level of authoritarian personality significantly thwarted a person's willingness to express a minority or losing opinion in public except for the abortion topic. The abortion issue has been debated for a long time in the U.S. and many people in the two camps seemed to be determined to defend their views at any price. The participants of the study also rated abortion as the most controversial issue. This social milieu about abortion might have made the topic significantly polarized between the two opposite camps, which caused overall high willingness to speak out whether a person was an authoritarian or not. Or as described in footnote 1 of chapter 1, people might have considered other authorities, namely religion, as more important than public opinion in determining their opinion and behavior about the abortion issue.[40]

In summary, the current study found that personality matters in the spiral of silence process. Although the study showed that personality in general was a significant factor on willingness to speak out, its effect was variable among topics depending on the

[40] For example, if a person believes that abortion is immoral because of his religious conviction and if he knows that his view is widely supported among his congregation, he might not be afraid of being isolated from the majority of the population. In this case, the religious authority is more influential in determining his opinion and behavior than any other authorities including public opinion.

unique conditions of each issue. For example, independent self-construal had little effect on hardcoreness in the affirmative action issue while authoritarian personality had little effect on hardcoreness in the abortion issue. Future research should look at the relationship between personalities and issue specificities to see why a certain personality type has been a significant factor in a certain issue but not in another issue.

In general, the findings of the study indicate that if there are many independent self-construal and low-authoritarian individuals in a society, one opinion is not likely to dominate public opinion because these individuals who are more likely to be hardcores would be a catalyst for initiating another spiral of an opinion against the majority opinion. Therefore, the spiral of silence process may not be a universal manifestation of human nature. Rather it is a social phenomenon which could be facilitated by certain kinds of personalities in a certain situation.

All in all, the current study indicates that the spiral of silence process is not a manifestation of an unavoidable human nature but is more likely to be a manifestation of the democratic system's failure or certain cultures which emphasize harmony among social members over individuality. The current study showed a possibility of examining this societal phenomenon through comparing individual differences. Future researchers could look at the relationship between the spiral of silence phenomenon and the level of democracy in society by way of examining various personalities of each society.

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APPENDICES

APPENDIX A

PRELIMINARY QUESTIONNAIRE

Your participation in this survey is voluntary. If you decide to participate, you may withdraw from the survey at any time. Please remember only your opinion counts. This is not a test, and there is no right or wrong answer. All responses are anonymous and will be reported only in the aggregate. This survey will take about 10 to 15 minutes.

This part of the survey asks your opinion concerning a variety of social issues. You will probably find that you *agree* with some of the statements, and *disagree* with others, to varying extents. Please indicate your reaction to each of the statements by circling the number that best reflects your opinion. The closer to the option +3 or -3, the stronger you agree or disagree with each statement. And 0 on the scale indicates that you are neutral about the issue of the statement.

1. The way things are going in this country, it's going to take a lot of "strong medicine" to straighten out the troublemakers, criminals, and perverts.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

2. It is wonderful that young people today have greater freedom to protest against things they don't like and to "do their own thing."
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

3. It is always better to trust the judgment of the proper authorities in government and religion than to listen to the noisy rabble-rousers in our society who are trying to create doubt in people's minds.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

4. People should pay less attention to the Bible and the other old traditional forms of religious guidance and instead develop their own personal standards of what is moral and immoral.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

5. It would be best for everyone if the proper authorities censored magazines and movies to keep trashy material away from the youth.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

6. It may be considered old-fashioned by some, but having a decent, respectable appearance is still the mark of a gentleman and, especially, a lady.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

7. The sooner we get rid of the traditional family structure, where the father is the head of the family and the children are taught to obey authority automatically, the better. The old-fashioned way has a lot wrong with it.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

8. There is nothing wrong with premarital sexual intercourse.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

9. The facts on crime, sexual immorality, and the recent public disorders all show we have to crack down harder on deviant groups and troublemakers if we are going to save our moral standards and preserve law and order.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

10. There is nothing immoral or sick in somebody's being a homosexual.
    Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

11. It is important to protect fully the rights of radicals and deviants.
    Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

12. Obedience and respect for authority are the most important virtues children should learn.
    Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

13. Rules about being "well-mannered" and respectable are chains from the past which we should question very thoroughly before accepting.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

14. Once our government leaders and the authorities condemn the dangerous elements in our society, it will be the duty of every patriotic citizen to help stomp out the rot that is poisoning our country from within.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

15. "Free speech" means that people should even be allowed to make speeches and write books urging the overthrow of the government.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

16. Some of the worst people in our country nowadays are those who do not respect our flag, our leaders, and the normal way things are supposed to be done.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

17. In these troubled times laws have to be enforced without mercy, especially when dealing with the agitators and revolutionaries who are stirring things up.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

18. Atheists and others who have rebelled against the established religions are no doubt every bit as good and virtuous as those who attend church regularly.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

19. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

20. The self-righteous "forces of law and order" threaten freedom in our country a lot more than most of the groups they claim are "radical" and "godless."
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

21. The courts are right in being easy on drug users. Punishment would not do any good in cases like these.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

22. If a child starts becoming unconventional and disrespectful of authority, it is his parents' duty to get him back to the normal way.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

23. In the final analysis the established authorities, like parents and our national leaders, generally turn out to be right about things, and all the protesters don't know what they're talking about.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

24. A lot of our rules regarding modesty and sexual behavior are just customs which are not necessarily any better or holier than those which other people follow.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

25. There is absolutely nothing wrong with nudist camps.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

26. The real keys to the "good life" are obedience, discipline, and sticking to the straight and narrow.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

27. It is best to treat dissenters with leniency and an open mind, because new ideas are the lifeblood of progressive change.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

28. The biggest threat to our freedom comes from the Communists and their kind, who are out to destroy religion, ridicule patriotism, corrupt the youth, and in general undermine our whole way of life.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

29. Students in high school and university must be encouraged to challenge their parents' ways, confront established authorities, and in general criticize the customs and traditions of our society.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

30. One reason we have so many troublemakers in our society nowadays is that parents and other authorities have forgotten that good old-fashioned physical punishment is still one of the best ways to make people behave properly.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

This part of the survey asks your opinion concerning a variety of everyday situations. You will probably find that you *agree* with some of the statements, and *disagree* with others, to varying extents. Please indicate your reaction to each of the statements by circling the number that best reflects your opinion. The closer to the option +3 or -3, the stronger you agree or disagree with each statement. And 0 on the scale indicates that you are neutral about the issue of the statement.

1. I have respect for the authority figures with whom I interact.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

2. It is important for me to maintain harmony within my group.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

3. My happiness depends on the happiness of those around me.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

4. I would offer my seat in a bus to my professor.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

5. I respect people who are modest about themselves.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

6. I will sacrifice my self-interest for the benefit of the group I am in.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

7. I often have the feeling that my relationships with others are more important than my own accomplishments.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

8. I should take into consideration my parents' advice when making education/career plans.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

9. It is important to me to respect decisions made by the group.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

10. I will stay in a group if they need me, even when I'm not happy with the group.
    Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

11. If my brother or sister fails, l feel responsible.
    Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

12. Even when I strongly disagree with group members, I avoid an argument.
    Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

13. I'd rather say "No" directly, than risk being misunderstood.
    Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

14. Speaking up during a class is not a problem for me.
    Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

15. Having a lively imagination is important to me.
    Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

16. I am comfortable with being singled out for praise or rewards.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

17. I am the same person at home that I am at school.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

18. Being able to take care of myself is a primary concern for me.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

19. I act the same way no matter who I am with.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

20. I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

21. I prefer to be direct and forthright when dealing with people I've just met.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

22. I enjoy being unique and different from others in many respects.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

23. My personal identity independent of others, is very important to me.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

24. I value being in good health above everything.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

How much do you consider the following topics as controversial? Please indicate your thought on each issue by circling the number that best reflects your opinion.

1. Capital punishment
Not at all controversial -3 -2 -1 0 +1 +2 +3 Very controversial

2. Affirmative action
Not at all controversial -3 -2 -1 0 +1 +2 +3 Very controversial

3. Doctor-assisted suicide
Not at all controversial -3 -2 -1 0 +1 +2 +3 Very controversial

4. Environmental protection
Not at all controversial -3 -2 -1 0 +1 +2 +3 Very controversial

5. Abortion
Not at all controversial -3 -2 -1 0 +1 +2 +3 Very controversial

6. Gun control
Not at all controversial -3 -2 -1 0 +1 +2 +3 Very controversial

7. Welfare
Not at all controversial -3 -2 -1 0 +1 +2 +3 Very controversial

8. Homosexuality
Not at all controversial -3 -2 -1 0 +1 +2 +3 Very controversial

9. Racial profiling
Not at all controversial -3 -2 -1 0 +1 +2 +3 Very controversial

10. Military tribunals for terrorists
Not at all controversial -3 -2 -1 0 +1 +2 +3 Very controversial

11. Genetic engineering
Not at all controversial -3 -2 -1 0 +1 +2 +3 Very controversial

12. Flag burning
Not at all controversial -3 -2 -1 0 +1 +2 +3 Very controversial

Now you will be asked some questions about you. Please be assured that the information in the study will be kept confidential and anonymous. No reference will be made in oral or written reports which could link you to the study.

1. What is your gender?
   1) Male ( )
   2) Female ( )

2. What is your party affiliation?
   1) Republican ( )
   2) Democrat ( )
   3) Independent ( )
   4) Others ( )

3. What is your major? ( )

4. What is your year in school?
   1) Freshman ( )
   2) Sophomore ( )
   3) Junior ( )
   4) Senior ( )
   5) Graduate ( )

5. Do you watch political programs in TV? (Examples include news programs in ABC, CBS, NBC, and Fox networks and various political programs in CNN, MSNBC and many other cable networks).
   1) Yes ( ) (go to question 6)
   2) No ( ) (go to question 7)

6. How many times do you watch those programs in a week on the average?
   1) Once or twice ( )
   2) Three or four times ( )
   3) Five or six times ( )
   4) More than seven times ( )

7. Do you visit political sites on the Internet sometimes? (Examples include Web sites of politicians, news programs, or Web sites which promote a particular issue position such as gun control).
   1) Yes ( ) (go to question 8)
   2) No ( ) (go to question 9)

8. How many times do you visit those Web sites in a week on the average?
   1) Once or twice ( )
   2) Three or four times ( )
   3) Five or six times ( )
   4) More than seven times ( )

9. I'm interested in which source you use most for political information? Please rank your usage of following information sources from the one you use most with number 1, the one you use second most with number 2, and so on.
   1) TV ( ) 2) Radio ( )
   3) Newspapers ( ) 4) Magazines ( )
   5) Internet ( ) 6) Family and friends ( )

10. What is your age? ( )

APPENDIX B

FINAL QUESTIONNAIRE

Your participation in this survey is voluntary. If you decide to participate, you may withdraw from the survey at any time. Please remember only your opinion counts. This is not a test, and there is no right or wrong answer. All responses are anonymous and will be reported only in the aggregate. This survey will take about 10 to 15 minutes.

Issue (Abortion)[41]

1. On principle, are you in favor of, or opposed to, abortion?
   Opposed -3 -2 -1 0 +1 +2 +3 In favor

2. Do you think <u>your opinion</u> on this issue is currently gaining support among the U.S. population?
   (1) Gaining support ( ) (2) Losing support ( )
   (3) Staying the same ( ) (4) Impossible to tell ( )

3. Leaving aside your personal opinion, do you think that <u>the majority in the U.S.</u> are in favor of, or opposed to, abortion?
   (1) Majority in favor ( ) (2) Majority opposed ( )
   (3) About fifty-fifty ( ) (4) Impossible to tell ( )

4. Leaving aside your personal opinion, do you think that <u>the majority in Knoxville</u> are in favor of, or opposed to, abortion?
   (1) Majority in favor ( ) (2) Majority opposed ( )
   (3) About fifty-fifty ( ) (4) Impossible to tell ( )

5. Leaving aside your personal opinion, do you think that <u>the majority of your family members and close friends</u> are in favor of, or opposed to, abortion?
   (1) Majority in favor ( ) (2) Majority opposed ( )
   (3) About fifty-fifty ( ) (4) Impossible to tell ( )

6. Do you think that in a few years' time abortion could be outlawed in the U.S., or do you feel this is not probable?
   (1) Possibly outlawed ( )(2) Not probable ( )
   (3) Impossible to tell ( )

7. How do you think people who are against your opinion on this issue would react if you expressed your opinion in front of them?
   Not at all hostile -3 -2 -1 0 +1 +2 +3 Very hostile

8. Do you think that currently <u>the majority of TV news programs</u> are in favor of, or opposed to, abortion?
   (1) Majority in favor ( ) (2) Majority opposed ( )
   (3) About fifty-fifty ( ) (4) Impossible to tell ( )

9. Do you consider the topic of abortion as a controversial topic?
   Not at all controversial -3 -2 -1 0 +1 +2 +3 Very controversial

10. How important is this topic to you?
    Not at all important -3 -2 -1 0 +1 +2 +3 Very important

11. How important is this topic for the U.S. society in general?
    Not at all important -3 -2 -1 0 +1 +2 +3 Very important

12. Compared to other UT students, what do you think is the level of your knowledge about the topic of abortion?
    Much below average -3 -2 -1 0 +1 +2 +3 Much above average

[41] Other versions of the questionnaires for affirmative action and capital punishment used the same wordings shown in this questionnaire except for question 6 in the first page. The word "outlawed" was replaced with "abolished" in the affirmative action and capital punishment topics.

13. Compared to the general public in the U.S., what do you think is the level of your knowledge about the topic of abortion?
Much below average -3 -2 -1 0 +1 +2 +3 Much above average

14. Suppose at a party you encounter a person who is against your opinion on the topic of abortion. How likely are you to enter a discussion about the issue with him or her?
Not at all likely -3 -2 -1 0 +1 +2 +3 Very likely

15. Suppose someone distributed a bumper sticker which endorses your opinion on abortion. How likely are you to put the bumper sticker on your car?
Not at all likely -3 -2 -1 0 +1 +2 +3 Very likely

16. Suppose you are stopped by a TV reporter in the street and asked your opinion about abortion. How likely are you to express your opinion in this situation?
Not at all likely -3 -2 -1 0 +1 +2 +3 Very likely

17. What is your reaction to this statement?
"I would express my opinion even when all people in a group oppose to my opinion on the topic of abortion."
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

18. If your opinion on abortion became widely known among people who you personally know (but have not known your opinion before), how concerned would you be that these people would avoid you or act differently toward you somehow?
Not at all concerned -3 -2 -1 0 +1 +2 +3 Very concerned

This part of the survey asks your opinion concerning a variety of social issues. You will probably find that you *agree* with some of the statements, and *disagree* with others, to varying extents. Please indicate your reaction to each of the statements by circling the number that best reflects your opinion. The closer to the option +3 or -3, the stronger you agree or disagree with each statement. And 0 on the scale indicates that you are neutral about the issue of the statement.

1. It is always better to trust the judgment of the proper authorities in government and religion than to listen to the noisy rabble-rousers in our society who are trying to create doubt in people's minds.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

2. People should pay less attention to the Bible and the other old traditional forms of religious guidance and instead develop their own personal standards of what is moral and immoral.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

3. It would be best for everyone if the proper authorities censored magazines and movies to keep trashy material away from the youth.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

4. The facts on crime, sexual immorality, and the recent public disorders all show we have to crack down harder on deviant groups and troublemakers if we are going to save our moral standards and preserve law and order.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

5. Once our government leaders and the authorities condemn the dangerous elements in our society, it will be the duty of every patriotic citizen to help stomp out the rot that is poisoning our country from within.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

6. Some of the worst people in our country nowadays are those who do not respect our flag, our leaders, and the normal way things are supposed to be done.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

7. Atheists and others who have rebelled against the established religions are no doubt every bit as good and virtuous as those who attend church regularly.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

8. The courts are right in being easy on drug users. Punishment would not do any good in cases like these.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

9. A lot of our rules regarding modesty and sexual behavior are just customs which are not necessarily any better or holier than those which other people follow.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

10. It is best to treat dissenters with leniency and an open mind, because new ideas are the lifeblood of progressive change.
    Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

This part of the survey asks your opinion concerning a variety of everyday situations. You will probably find that you *agree* with some of the statements, and *disagree* with others, to varying extents. Please indicate your reaction to each of the statements by circling the number that best reflects your opinion. The closer to the option +3 or -3, the stronger you agree or disagree with each statement. And 0 on the scale indicates that you are neutral about the issue of the statement.

1. It is important for me to maintain harmony within my group.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

2. My happiness depends on the happiness of those around me.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

3. I respect people who are modest about themselves.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

4. I will sacrifice my self-interest for the benefit of the group I am in.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

5. I often have the feeling that my relationships with others are more important than my own accomplishments.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

6. I should take into consideration my parents' advice when making education/career plans.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

7. It is important to me to respect decisions made by the group.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

8. Even when I strongly disagree with group members, I avoid an argument.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

9. Speaking up during a class is not a problem for me.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

10. Having a lively imagination is important to me.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

11. I am comfortable with being singled out for praise or rewards.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

12. I am the same person at home that I am at school.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

13. I act the same way no matter who I am with.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

14. I prefer to be direct and forthright when dealing with people I've just met.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

15. I enjoy being unique and different from others in many respects.
Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

16. My personal identity independent of others, is very important to me.
   Strongly disagree -3 -2 -1 0 +1 +2 +3 Strongly agree

Now you will be asked some questions about yourself. Please be assured that the information in the study will be kept confidential and anonymous. No reference will be made in oral or written reports which could link you to the study.

1. What is your gender?
   1) Male ( ) 2) Female ( )

2. What is your party affiliation?
   1) Republican ( ) 2) Democrat ( )
   3) Independent ( ) 4) Other ( )

3. What is your major?
   1) Science ( )
   2) Social Sciences ( )
   3) Humanities ( )
   4) Education ( )
   5) Business ( )
   6) Engineering ( )
   7) Undecided ( )
   8) Other ( )

4. What is your year in school?
   1) Freshman ( )
   2) Sophomore ( )
   3) Junior ( )
   4) Senior ( )
   5) Graduate ( )

5. Do you watch political programs on TV? (Examples include news programs on ABC, CBS, NBC, and Fox networks and various political programs on CNN, MSNBC and many other cable networks).
   1) Yes ( ) (go to question 6) 2) No ( ) (go to question 7)

6. How many times do you watch those programs in a week on the average?
   1) Once or twice ( ) 2) Three or four times ( )
   3) Five or six times ( ) 4) More than seven times ( )

7. Do you sometimes visit political sites on the Internet? (Examples include Web sites of politicians and news programs, or Web sites which promote a particular issue position such as gun control).
   1) Yes ( ) (go to question 8) 2) No ( ) (go to question 9)

8. How many times do you visit those Web sites in a week on the average?
   1) Once or twice ( ) 2) Three or four times ( )
   3) Five or six times ( ) 4) More than seven times ( )

9. Which source do you use most for political information? Please rank your usage of following information sources from the one you use most with number 1, the one you use second-most with number 2, and so on.
   1) TV ( ) 2) Radio ( )
   3) Newspapers ( ) 4) Magazines ( )
   5) Internet ( ) 6) Family and friends ( )

10. What is your age? ( )

VITA

Kyoungtae Nam was born in Taejon, Korea on May 11, 1968. He entered Hanyang University in Seoul, Korea in 1987. He served as an artilleryman in the Korean Army from 1989 to 1991. After an honorable discharge from the Army, he earned a Bachelor's degree in philosophy in 1994.

After he worked in an insurance company for a short time, he entered the U.S. to pursue his academic dream. He earned a Master's degree in advertising at Michigan State University in August 1998. After graduation, he transferred to the University of Tennessee and received a Doctor of Philosophy degree in Communications in December 2002. He accepted an adjunct professorship in the University of Tennessee and will start to teach from the fall semester 2002.