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**Milestones in Spiral of Silence Research**

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**1. Introduction**

In 1974 Elisabeth Noelle-Neumann first published her theory of public opinion (Noelle-Neumann 1974) – of which the spiral of silence is the most prominent part. Since then, this theory has sparked a considerable amount of research all over the world. Due to the complexity of the theory, empirical research is challenging (Donsbach/Stevenson 1986). Many researchers have met this challenge and proposed new approaches and research techniques for the empirical test of Noelle-Neumann’s theory. It is the aim of this paper to shed light on some of the central theoretical and empirical developments in spiral of silence research in the past decades.

The social-psychological theory of public opinion covers four areas of social reality: (1) It postulates that individuals constantly evaluate the climate of opinion in order to avoid social isolation by inappropriate public speech or behaviour. (2) The spiral of silence is also a theory of the mass media, suggesting that the mass media distribute information about majorities and minorities, define socially approved behaviour, and provide arguments for public discussions. (3) The theory is also about the development of opinion distributions in a whole society. This is the part of the theory that became famous as the spiral of silence: When people notice that their opinion is losing ground they tend to fall silent. This makes the affected opinion camp appear even smaller, silencing more and more of its own supporters. (4) The fourth and last area of reality the theory addresses is the integration of societies. The latent (mostly unnoticed) function of public opinion is to resolve conflicts and to hold societies together (Donsbach/Stevenson 1986).

The range of the spiral of silence is limited by a set of preconditions. First, the issue at stake must have a moral component; it must be able to emotionalize people. If an issue lacks this power to make people afraid of social isolation, a spiral of silence is not only improbable – its occurrence would be a contradiction to Noelle-Neumann’s hypotheses. It is therefore necessary to empirically measure the moral component of issues in order to provide a valid basis for an empirical test of the spiral of silence. Other conditions for processes of public opinion are conflict, dynamics, and the involvement of the mass media. Unlike the emotional potential, these conditions are not compulsory. Rapid

changes in opinion distributions, for example, make spirals of silence easier to observe. Yet there are rather slow spirals of silence (e. g. the issue of death penalty in Germany, Noelle-Neumann 1989).

In almost all of these areas at least some scientific progress has been made in the past. Due to restrictions in space and time, this paper concentrates on three aspects: (1) *Theoretical* progress has been made by integrating individual involvement into the set of hypotheses that compose Noelle-Neumann's theory. (2) A huge amount of *empirical* creativity flew into the development of survey questions addressing the willingness to speak out in public on a controversial issue. (3) And some progress was made in the *logic of the analysis* of spiral of silence data – although there are still difficulties and some confusion left for future researchers in this area.

## **2. Involvement**

The spiral of silence theory postulates that people tend to fall silent if they either perceive to be in the minority or feel that their positions are losing ground over time. Some results of international studies showed that there are cases where people are aware of being in the minority and yet keep actively speaking out in public for their opinions. Shamir (1997) found that opponents and supporters of the 'land for peace' policy in Israel were not only very willing to speak but also were especially motivated to publicly defend their positions when their camp came under pressure by the climate of opinion. A multivariate analysis confronted Shamir with the following outcome:

"In all regressions the most potent variables are indicators of involvement in politics, measured by general tendency to participate, knowledge, and the intensity of one's position on the issue of contention [...]" (Shamir 1997: 609).

He addresses the problem of the relationship between involvement and fear of isolation directly:

"The importance of attitude position (and also attitude intensity) suggests that political discontent, obviously more prevalent among whoever is in opposition, is a major source for overt expression of opinion, and not only for political action." (Shamir 1997: 609)

He continues:

"Fear of isolation may be operating on some, but others maybe driven by a need to express their deeply cherished values especially when in jeopardy, so as to define themselves and convince others. [...] One may argue, however, that morally loaded debates are likely to evoke in addition [to a spiral of silence] strong value expression motivations which may contrast social pressures." (Shamir 1997: 610).

This looks at first like a contradiction to (and therefore a possible falsification of) the spiral of silence theory. But according to modern principles of epistemology, theories cannot only be falsified and replaced (Popper 2002: 17-20; 264-273) but gradually improved (Lakatos 1970). An adjustment of the theory is justified by a large number of findings similar to those of Jacob Shamir. For example, an involvement effect occurred during the conflict about the German population census in the 1980s (Scherer 1990) and has been found by the Allensbach Institute (which was founded by Elisabeth Noelle-Neumann) in a study about acceptance of religion among Germans (Haumann 2004).

The interesting thing about involvement is this. If growing involvement moderates the effects of fear of isolation on individuals, it may conceal a spiral of silence. Measuring involvement (which is, in terms of the spiral of silence, the same as emotional potential on an individual level) and other individual attributes linked to willingness to speak, provides the researchers with the opportunity to separate spiral of silence effects from those of individual involvement (and similar predispositions for publicly standing by one's opinions). From the beginning of her research on the spiral of silence, Elisabeth Noelle-Neumann was fully aware that some people can influence public opinion because of their personality strength or their commitment to a mission. This is the classic case of the spiral of silence where a small but loud and active minority kicks a spiralling process off, which silences out a majority. Measuring involvement on an individual level has the potential to quantify the role of highly involved individuals in processes of public opinion.

Measurement of involvement can be done in many ways. To name but a few:

- Direct questions („Does [MIP named] strongly arouse your feelings?“ [McCombs 1999: 157]),
- free and cued recall of messages,
- ‘thought-listing-technique’,
- Rubin and Perse’s (1987) set of questions concerning cogitation of news content.

### **3. Measuring willingness to speak out**

The classical question to measure peoples' willingness to speak out on a controversial issue is the *train test*. In order to create a greater variety of measures and to account for countries where traveling by train is not common, researchers have developed a wide array of alternative questions for this central part of the spiral of silence hypothesis. The questions can be categorized as follows:

*Tests using means of transportation.* Dominic L. Lasorsa uses a derivate of the original train test:

„Suppose you are taking a long train or plane ride and someone in your compartment begins a conversation about this most important problem, and they express an opinion opposite to your own. Would you like to discuss the issue with that person?“ (Lasorsa 1991: 137)

Noticeably he uses the term ‚compartment‘. This is important because it is necessary to provoke the image of a small public in the respondents' minds – even though airplanes are rarely equipped with compartments. On the other hand, the following simpler version is wrong because one stranger alone beside the respondent cannot create the feeling of publicness necessary to influence peoples' willingness to speak out:

“Suppose you’re sitting next to a stranger on a bus or airplane who disagrees with you on the issue of a constitutional amendment to ban abortions. Would you be willing to enter into a discussion with this person, or wouldn’t you?” (Salmon/Neuwirth 1990: 573)

The Allensbach Institute developed a bus test for countries without a tradition of train rides. Here, they carefully added the aspect of a small public which is usually not present in buses. After measuring the own opinion of the respondent, the following question is asked:

“Assuming you are on a five-hour bus trip and the bus stops for a rest stop and everyone gets out for a long break. In one group of passengers, people start talking and someone says that he is completely *in favor of* ... (Split-ballot: *completely against*...). Would you like to talk to this person or would you prefer not to?” (Noelle-Neumann 1989: 27)

In a direct comparison of the train test and the bus test, both yielded very similar results (IfD-survey 4093/II, question 72). Unfortunately, this correct form of the bus test was never popular among international researchers. All in all, the creativity among scholars to improve tests using means of transportation is limited.

*Reporter tests.* The basic form of the reporter test reads like this:

“Suppose a TV reporter with a camera and a microphone were interviewing people on the street about [issue]. Would you be willing to say what you think or would you prefer not to?”  
(Donsbach/Stevenson 1986: 29).

A potential problem with the reporter test is that it has a very strong focus: Unlike talking in a train compartment, being interviewed by a reporter is an experience most people are not familiar with. In addition TV is associated with maximum publicity. Therefore it is plausible that many people who would not hesitate to express their point of view on an issue publicly, refrain from doing so when confronted with such an extraordinary situation. In the US, this problem is especially relevant, since it is a common practice to illustrate survey results with case studies of a few respondents. As Baldassare and Katz note in their 1989 study:

“Now, a relatively new practice is gaining favor among newspapers that conduct opinion polls: the use of ‚reinterviews‘ in which willing survey respondents are later contacted by a reporter. Reinterviews provide quotes and anecdotal information that can enhance news stories about the poll.” (Baldassare/Katz 1989: 907)

To identify willing respondents the following question is asked – nota bene not as an indicator for willingness to speak out but as a real means to win interview partners:

„Would you be willing to talk about these questions with a (name of newspaper sponsor) reporter and have your name appear in the paper? “ (Baldassare/Katz 1989: 908)

It is safe to assume that this practice reduces the willingness to speak out even among people who are and see themselves in the majority and who would have no problems speaking out in a more familiar environment. Even if the question is just an indicator of willingness to speak out, many people will perceive the possibility of a reporter calling and subsequently seeing their names in the papers as real and thus prefer to remain silent.

In the area of the reporter tests, researchers were a bit more creative than in the cases of train tests. Fields and Schuman used a special form of this kind of test when they asked for the publication of a petition:

"The 1969 study included a direct measure of consistency between interview response and noninterview racial behavior, [...]. It involved a post-survey request to respondents to sign and allow to be published in newspapers over their signatures a petition in support of the position on the open housing issue they had verbalized in the earlier interview. [...] respondents did not know it had any connection with the survey or other research." (Fields/Schuman 1976: 434)

A similar approach was used by Jeffries, Neuendorf and Atkin, when they asked the respondents for consent to be mentioned in a research paper (Jeffries/ Neuendorf/Atkin 1999: 120).

Lars Willnat used a derivate of the reporter test in Asia:

"A similar second measure demanded a greater degree of public expression by asking about respondents' willingness to call in a radio talk show describing their views on the reform proposal." (Willnat 1996: 194).

Only five percent of the respondents were willing to do so – a measure that could have been expected given the traditionally cautious culture of Asia. A similar problem is the question Kim et. al. used in Korea. They asked about the willingness to participate in a TV discussion, with which they probably caused some of the respondents to think of a real invitation to a TV studio (Kim et. al. 2004: 47).

*Social Gathering Tests.* This category of questions is the most complicated and most dangerous means of gauging willingness to speak out in public. Therefore it is very useful to explain important developments in spiral of silence methodology over the past few decades.

The grandfather of all social gathering tests is the party test, developed by the Allensbach Institute. Its English version reads:

"I would like you to imagine yourself at a party at which people begin to say things against [politician's name] and his policies. How probable is it that you would enter the conversation?" (Neuwirth/Ilundain 1984: 15)

Unfortunately, this test does not yield valid results (Noelle-Neumann 1984): People usually attend parties with friends and acquaintances; the hypothetical situation lacks the element of the anonymous public. Researchers learned from this problem and confronted their respondents with a more neutral situation:

"If you were at a social gathering on campus and they were discussing divestment, how likely would you be to join in the conversation?" (Mutz 1989: 11).

Maybe this situation is too neutral and many of the responding students will probably associate a 'social gathering on campus' with people they are familiar with. Consequently, the next step in the evolution of the social gathering tests is a more complex description of the social situation that respondents are asked to imagine:

„If you got into a conversation with someone you just met in this town in some public place, and the person held a different opinion about English as the official language than you, would you be (1) very willing, (2) willing, (3) unwilling, or (4) very unwilling to get into a conversation about Official English with that person?“ (Salwen/Lin/Matera 1994: 284)

The intention is noble, but the question is most probably not valid: The public situation is not described vividly enough to invoke feelings of fear of isolation: A private talk to a stranger on a market place is not the same as a conversation in a streetcar – or a train compartment. Consequently, researchers put even more creativity into the description of a suitable social situation:

“Imagine that you’re at some kind of social gathering where you don’t know anyone. You’re talking to a group of people when someone brings up the issue of Initiative 200. From the discussion, you can tell that most people in the group do not support your point of view. In this kind of situation, some people would express their opinions, while others would not. How likely would you be to express your opinion on Initiative 200 in a situation like this?”  
 (Moy/Domke/Stamm 2001: 13).

It is not yet clear, whether this description is a strong indicator of willingness to express one’s opinion in public. Most people will rarely find themselves in social situations where they do not know a single soul but are asked to talk to strangers about morally loaded issues – and if they do, they probably perceive such situations as horrifying. The surrealism of this kind of social gathering is particularly striking in a question of Scheufele:

“You don’t know the host or any people at this social gathering and you’re about to express your opinion on the new regulation of smoking in a discussion with other people. What are the first things that come to your mind?” (Scheufele 1999: 52)

While journeys in a train compartment are (or at least were in the 1960s and 70s) familiar to most people, it is unusual, and would take a lot of courage, to discuss delicate issues at a party one visits without knowing anyone. It is probably not a good idea to tell respondents to imagine a nightmare.

The most promising approach for a social gathering test was designed by Andrew F. Hayes, Carroll Glynn and James Shanahan. It contains a sophisticated description of a likely, public, but not too public situation:

“You are at a campus party on the weekend. You recognize some people at the party from classes that you have taken, and there are a few familiar faces that you just can’t place but you’ve definitely seen around campus. Overall however, you don’t know people there.”  
 (Hayes/Glynn/Shanahan 2005: 453)

#### **4. The logic of spiral of silence analyses**

After collecting data about opinion distributions, perceived climate of opinion and willingness to show opinions publicly, statistical analysis can begin. Unfortunately, there is a fair amount of confusion about the logic of these analyses.

The problem is this. Noelle-Neumann explicitly postulates that “[w]illingness to expose one’s views publicly varies according to the individual’s assessment of the frequency distribution and the trend of opinions in his social environment.” (Noelle-Neumann 1974: 45) This hypothesis suggests that perceiving to be part of a majority or minority opinion is the independent variable in the spiral of silence process. Donsbach calls this approach the *psychological strategy* analysing spiral of silence data (Donsbach 1987: 342). Noelle-Neumann’s own analyses on the other hand use questions concerning the climate of opinion only to identify the winning and the losing camp. The analysis of willingness to publicly speak out is based on the actual camps. Using this *sociological strategy*, people

who are members of the majority or winning camp are compared to those who belong to the minority or losing side. If those people individually believe (justified or not) to be winning or losing is not taken into account. Both models have benefits and drawbacks:

- The *psychological analysis* is consistent with Noelle-Neumann's hypothesis that people fall silent, if they see themselves in the minority or on the losing side. On the other hand, public opinion is a process between two camps, e. g. supporters and opponents of nuclear energy. Public opinion is nothing that happens between two virtual groups of people (supporters and opponents alike) who happen to see themselves as members of a majority or minority.
- The *sociological analysis* yields plausible results but fails to explain how the mere belonging to an opinion camp is able to supersede manifest beliefs of being in the majority or minority (for an example see Table 1 below). In addition, the sociological analysis is not completely consistent with the theory which explains talking and silence by the perception to belong to the majority or minority.

The following table illustrates the problem of the two strategies for analysis. The issue at stake is a lower blood alcohol limit for drivers of 0.08 percent in April 1972. 75 percent were in favour of the lower limit, 17 percent against it, 8 percent were undecided. Only active drivers were asked.

**Table 1: Willingness to speak in public by opinion camps and by belief to be in the majority or in the minority (Noelle-Neumann 1973: 106)**

	Supporters of majority opinion (for reduction of alcohol limit) who think they represent -		Supporters of minority opinion (against reduction of alcohol limit) who think they represent -	
	the majority	the minority	the majority	the minority
If, during a five-hour train journey, somebody in the compartment had a different view on the subject of alcohol limit, I would -	n=748	n=271	n=198	n=47
contradict him and give reasons for my own view	79	75	78	53
not contradict him	14	20	19	45
No statement	7	5	3	2
	100	100	100	100

The table contains a few strange results. First, 75 percent of the majority camp, who *believe to be in the minority*, are willing to talk in the train compartment. Factual belonging to the majority seems to supersede personal beliefs concerning this status. Second, the willingness to talk is as strong (78%) among those, who are in fact a minority, but think to be in the majority as it is among their counterparts in the other opinion camp (79%) – maybe involvement (see above) among passionate drunken drivers is in effect here. The spiral of silence phenomenon is mainly based on those 47 respondents who are in the minority and believe to be so. Obviously both the sociological and the psychological model of analysis contribute to the findings of this study.

Unfortunately, occasions where both models for analysis are combined in one study are rare. One milestone in this line of research is the analysis of Helmut Scherer on the conflict over the compulsory population census in Germany in 1987 (Scherer 1990: 147f). Scherer's findings support the conclusion from Table 1 above that both models of analysis must be used to analyse spiral of silence effects. In fact, a growing number of recent studies works with derivate variables, such as congruence and incongruence of opinion and majority beliefs (e. g. Willnat 1996: 195), where the actual opinions of the respondents and their majority or minority status are left aside. Some studies use sophisticated multivariate analyses where – at times – the real struggle between two camps in a deeply polarized society gets lost in mathematics (e. g. Petrič/Pinter 2002).

It is still unknown, however, how belonging to an opinion camp can supersede the effect of believing to be in a majority or minority. Until this has been investigated more thoroughly, and since the psychological model may hide silencing effects by mutual cancellation of between-camp-effects, it is recommended to use both models of analysis. Or, if more complex methods of data analysis are used, all relevant variables (own opinion, its status as majority or minority, and personal belief about this status) should be used as independent variables. Probably, there is an interaction between belonging to an opinion camp and believing to be on the winning or losing side. Table 2 illustrates the possible effects on willingness to publicly stand by one's opinions.

**Table 2: Opinion camp A and B and perceived majority/minority status**

	Camp A, real majority		Camp B, real minority	
	Perception: "A is winning"	Perception: "B is winning"	Perception: "A is winning"	Perception: „B is winning“
Respondent's status	Majority, aware of majority status	Majority, thinking to be in the minority	Minority, aware of minority status	Minority, thinking to be in the majority
Willingness to speak, psychological model	+	-	-	+
Willingness to speak, sociological model	+	+	-	-
Willingness to speak, combined analysis	++	+ -	--	- +

Source: Own compilation

## Conclusion

This paper addressed three important aspects of the empirical research on the spiral of silence in the past few decades: Theoretical consideration of involvement, new approaches to measure willingness to speak out publicly, and the evolving problem of different models of data analysis. The findings can be summarized in the following five statements:

1. Measuring involvement and other individual attributes on an individual level makes it possible to separate spiral of silence effects from those of individual involvement and other individual influences on speaking out in public.
2. The classical question to measure peoples' willingness to speak out on a controversial issue is the *train test*. It is important to create the image of a small public when using hypothetical situations in terms of transportation so as to measure willingness to speak out.
3. A problem with reporter tests is that it is very strong: Being interviewed by a reporter is an experience most people are not familiar with, and television is associated with maximum publicity.
4. Starting from the party test, researchers were very creative in making respondents imagine more or less complex social situations to measure willingness to publicly point out one's views. Some of the described situations are unrealistic or even eldritch; some newer approaches are more promising.
5. The psychological analysis is consistent with one of Noelle-Neumann's basic hypotheses, but it neglects the fact that public opinion is a process between two camps, not between two virtual groups of people who see themselves as members of a majority or minority. The sociological analysis yields plausible results but fails to explain how the mere belonging to an opinion camp is able to supersede manifest beliefs of being in the majority or minority. It is recommended to use both models of analysis until it has been more thoroughly investigated how belonging to an opinion camp can eliminate the effect of believing to be in a majority or minority.

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