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Minority Influence, Attitude Change, and Divergent Thinking: The Effects of Group Composition and Expected Group Interaction

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MINORITY INFLUENCE, ATTITUDE CHANGE, AND DIVERGENT THINKING:

THE EFFECTS OF GROUP COMPOSITION AND EXPECTED GROUP

INTERACTION

A DISSERTATION SUBMITTED TO

THE FACULTY OF THE GRADUATE SCHOOL

IN CANDIDACY FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

DEPARTMENT OF PSYCHOLOGY

BY

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CHAPTER 1

INTRODUCTION

The search for parameters predictive of social influence has led to the development of two different theoretical perspectives regarding minority and majority influence. Prior to the early 1970s, researchers working within this area primarily focused upon the impact that majority members had upon minority members (e.g., Asch, 1951; Festinger, Gerard, Hymovitch, Kelly, & Raven, 1952; Gerard, 1953; Hochbaum, 1954). Researchers and theorists working within this tradition, referred to as the "functionalist" approach (Moscovici, 1974), operated under the assumption that social influence was asymmetrical: Majority members were viewed as the source of social influence but not as possible targets of minority influence (Festinger, 1950; 1954). A central tenet of this perspective is that there is strength in numbers and that faction size can predict reliably the amount of social influence that will occur within a group (Latané, 1981; Tanford & Penrod, 1984). The notion that majority members exert more influence than minority members simply because their numbers are larger has received considerable empirical support (Gerard, Wilhelmy, & Connolley, 1968; Latané &

Darley, 1970; 1975; Smith, Tindale, & Dugoni, 1994; Tindale, Davis, Vollrath, Nagao & Hinsz, 1990).

Following Moscovici's criticism of the functionalist approach, increased attention was directed toward minority members and their impact upon majorities (Moscovici, 1974; 1976; 1980; Moscovici & Nemeth, 1974; Nemeth, 1985; 1986). Moscovici's "genetic" model emphasizes the symmetrical nature of social influence and suggests that minority and majority influence are qualitatively different, with the former resulting in private acceptance and eventual internalization of new ideas and the latter resulting only in public compliance. Moscovici has attributed these differences to the behavioral style of the source of influence, and has identified several characteristics typical of an influential minority source, including autonomy, a lack of rigidity, the use of logical arguments, fairness, and consistency. He has argued also that these traits (presented by the minority source and/or perceived by the majority recipient) lead the recipient of a message to process the arguments differently, and that this different type of processing leads to permanent attitude change. In contrast, majority influence, according to Moscovici, is assumed to provoke peripheral cognitive processes, leading only to public compliance (see Chaiken, 1987, or Petty & Cacioppo, 1981, for a discussion of the differences between

central route and peripheral cognitive processing in persuasion).

More recent research has shown that the qualitative differences between minority and majority influence are partially independent of the source's behavioral style (Maass & Clark, 1983; Nemeth, 1986; Tanford & Penrod, 1984). In addition, some researchers have pointed out that focusing on the behavioral style of the minority source is not particularly effective in differentiating between minority and majority influence. For example, Moscovici's description of such a style (Moscovici, 1980) applies equally well to an influential majority source. That is, a majority source who uses logical arguments, is consistent, and appears fair will be far more influential than a majority source who lacks these characteristics (Tanford & Penrod, 1984).

Minority Influence and Divergent Thinking

Nemeth (1986) has offered a different explanation for the qualitative differences believed to exist between majority and minority influence. She has argued that minority influence inspires individuals to think divergently, whereas majority influence forces individuals to think convergently. Divergent thinking (Guilford, 1956) is characterized by idea "fluency" (the generation of many ideas) and idea "flexibility" (the generation of ideas from several distinct idea classes or categories), whereas

convergent thinking involves the generation of a few ideas that is representative of the dominant or normative response set. The propensity of majority influence to provoke convergent thinking has been explained theoretically on the basis of the extensive literature on group creativity (Nemeth, 1986). Specifically, interacting groups are less likely to generate an idea that is novel, atypical, or creative than are nominal groups with individuals working alone (McGrath, 1984). This difference is probably the result of the tendency of the individual group members to move toward uniformity.

Nemeth (1986) claimed that an individual facing majority influence will behave in a similar manner (i.e., be less likely to generate novel ideas) for the same reasons. Minority influence, on the other hand, inspires the individual to think about novel and creative ideas. It is not clear whether this process is the result of modeling (e.g., individuals see other individuals who think in what appears to be a divergent fashion and choose to do so themselves), or if mere exposure to non-dominant arguments inspires one to think divergently. Nevertheless, Nemeth provides much experimental evidence in support of the notion that minorities are more capable than majorities to inspire divergent thinking (Nemeth & Kwan, 1985; Nemeth & Wachtler, 1983).

Perhaps most relevant to the approach taken in this paper is the study by Nemeth & Kwan (1985), in which it was shown not only that individuals who are exposed to minority influence think more divergently, but also that this thought style generalizes to subsequent unrelated tasks. Nemeth & Kwan (1985) first exposed subjects to either majority or minority influence in a color perception task (much like those used earlier by Moscovici where the minority member of the group disagrees about the color of the slide shown to the group). Following this task, subjects were asked to free associate with the colors green and blue (the colors used in the color perception task). Those who had been exposed to minority influence in the previous color perception task gave more original responses (i.e., statistically infrequent according to a normative list) than those who were exposed to majority influence for both colors. These data also lend support to the notion that majority influence provokes convergent thinking, in that individuals who were exposed to majority influence gave responses that were more conventional than a control group that did not participate in the color perception task.

Divergent Thinking and Group Interaction

Smith, Tindale & Dugoni (in press) investigated the qualitative differences between minority and majority influence within the context of freely interacting groups. Five-person unanimous groups were compared to groups with

either one or two minority members. Groups held a discussion regarding establishing English as the official language of the United States. After the discussion, individuals worked independently and listed their thoughts (arguments and counterarguments) regarding the issue discussed by their group. In addition, subjects listed their thoughts (arguments and counterarguments) on an unrelated issue that was not discussed by the group (i.e., the legal marriage between homosexuals). Evidence of divergent thinking was found for both issues, that is, individuals exposed to minority influence generated a greater number of thoughts than individuals who were members of unanimous groups for the discussed and non-discussed issues. However, the pattern of results when the **type** of thought (i.e., arguments and counterarguments) was considered indicated that minority influence may manifest itself differently as a result of group interaction.

Issue discussed by the group. Members of unanimous groups listed fewer thoughts than those exposed to minority influence for the issue discussed by the groups. The number of counterarguments (thoughts against one's position) also varied as a result of group composition. That is, individuals exposed to minority influence generated a greater number of counterarguments than those who were members of unanimous groups. Group composition had no

impact upon the number of arguments (thoughts in favor of one's position) that were generated.

A special problem arose when attempting to detect a divergent thought style in those who were exposed to minority influence for the issue that was discussed by the group. One would expect the individuals exposed to minority influence to generate more thoughts against their own position for this issue, simply because they heard more counterarguments during group discussion. It was for this reason that Smith et al. (in press) further investigated the cognitive activity of their subjects by transcribing audiotaped group conversations and comparing each group's conversation transcript to each member's listed thoughts. An analysis of unique thoughts (i.e., written thoughts not mentioned during the group conversation) indicated that individuals exposed to minority influence generated more unique arguments (i.e., thoughts in line with their own position) than did individuals who were members of unanimous groups. There were no differences with respect to the number of counterarguments generated. These findings seem to suggest not only that the individuals who were exposed to minority influence thought divergently, but that they directed their cognitive energy toward defending their position as well. It is quite possible that individuals exposed to minority influence generated more unique arguments because they were counterarguing against the

thoughts presented by the minority members. It is also quite possible that they began generating these thoughts once they realized they would have to defend their position. This explanation has received empirical support in a study by Levine (1991), in which individuals who expected to interact with minority or majority members generated more arguments consistent with their own position than individuals who did not expect to interact with others.

Issue not discussed by the group. Individuals who were exposed to minority influence generated more total thoughts and counterarguments regarding the legal marriage between two homosexuals than those who were members of unanimous groups. There were no differences between the two types of groups with respect to the number of arguments generated. The results from this issue certainly provided the most straightforward evidence in support of the notion that minorities inspire divergent thinking simply because there is no doubt as to the source of the majority members' arguments. In other words, because there was no interaction with other group members, subjects generated the thoughts on their own.

The differences Smith et al. (in press) found between the discussed and non-discussed issues suggest that expected or actual group interaction is an important variable in the analysis of minority influence. The need to defend one's position seems to alter the divergent thought processes

produced by minority influence. The present study was
designed in part to test this possibility by comparing the
thought styles of those who expect to engage in a group
conversation to those who do not expect to interact with
others.

Counterarguments vs. Minority Status

The results of Smith et al. (in press) leave another
important issue unresolved. It is not clear whether the
divergent thought patterns were found as a result of
minority influence, or if in fact, the mere exposure to
thoughts that run counter to one's position (i.e., generated
by a member who is not necessarily in the minority within
her/his group) is enough to bring about divergent thinking.
The design used by Smith et al. (in press) confounds these
two factors. That is, the minority members were, in
general, the individuals who were putting forth
counterarguments. In order to test more directly the notion
that divergent thinking is brought about by exposure to
minority influence, groups comprised of individuals with
differing opinions with no single member in the minority
must be used. To date, no systematic investigation of this
type has been conducted. Yet, clearly, it is quite feasible
that being exposed to thoughts that run counter to one's own
could lead an individual to consider additional thoughts
that contradict her/his own opinion. If the minority status
of the source is the sole explanation for differences in

thought processes found in minority influence studies,
divergent thought styles should not be exhibited by those
individuals who are exposed to discussions where the
distribution of individuals on the issue, within the group,
is balanced (e.g., three members in favor of the issue,
three members against the issue). The present study was
designed to test more thoroughly the notion that divergent
thinking is the result of minority influence per se.

Expected Group Interaction and Attitude Change

In addition to collecting the thought listing data,
Smith et al. (in press) assessed the amount of attitude
change that occurred as a result of minority influence. Not
surprisingly, the minority members were found to be
influential in that they reduced the degree of attitude
polarization within their respective groups. The present
study will explore the possibility that minority members may
be even more influential in terms of attitude change when no
group interaction is expected. As mentioned earlier,
Moscovici (1980) has argued that the attitude change that
occurs as a result of majority influence is merely
compliance, whereas minority influence results in private,
permanent attitude change. It follows then that those who
do not expect to interact with others should feel more free
to express their attitude change toward the minority
position than those who know that they will have to discuss
their position with others.

Outline of Present Study and Research Hypotheses

It was pointed out earlier that expected or actual group interaction appears to affect the divergent thought styles of those exposed to minority influence. A more thorough and experimentally controlled investigation of this phenomenon was carried out in the present study. Individuals exposed to minority influence unanimous or balanced groups either expected or did not expect to interact with others and their divergent thought styles were compared. It was hypothesized that those who expected to interact with others would direct more of their energy toward defending their own position. That is, they would generate more thoughts in favor of their own position than would those subjects who did not expect to engage in a group discussion. In contrast, those who did not expect to interact with others were expected to generate more counterarguments than individuals who expected to engage in a group discussion. This pattern of results was expected for both the first and the second issue. One form of divergent thinking, idea fluency, was expected in both "expect" and "do not expect" to join conditions when the subject was exposed to minority influence. When the subjects were exposed to and/or expected to interact with unanimous groups no idea fluency was expected.

In addition, a more thorough investigation of the notion that divergent thinking is brought about by exposure

to minority influence and not simply the result of being exposed to ideas generated by a majority member that run counter to one's position was conducted. It was hypothesized that individuals who were exposed to group discussions where no single member was in the minority (e.g., a balanced group where three people are in favor of the issue and three are against) would not exhibit signs of divergent thinking.

Finally, it was hypothesized that those who did not expect to engage in a group discussion would change their attitude more toward the position of the minority member(s) than those who expected to interact with a group of individuals.

CHAPTER 2

METHOD

Subjects

The subjects were 236 undergraduates drawn from
psychology courses at Grand Valley State University and
Loyola University, Chicago. Subjects participated for
approximately one hour and received course credit for their
participation.

Design

Expected group interaction. One of the major factors of
interest was expected group interaction. Each subject was
given a written transcript of a conversation said to have
been held a few days earlier by a group of undergraduates at
Grand Valley State University. The group discussion
addressed having the government pass a law that would make
English the official language of the United States. The
transcripts were developed on the basis of several of the
conversations held by the subjects in the Smith et al. (in
press) study. Half of the subjects were told that the group
transcript they were about to read was based on a
conversation held by a group that they would join after
completing a few tasks independently. They were also told
that their group was waiting in another part of the

laboratory and that upon joining the group, the group would continue discussing the issue. The remaining half of the subjects did not expect to join the group whose transcript they read. The detailed instructions read to the subjects in each condition are presented in Appendix A.

Minority status. Whether or not the source of counterarguments (i.e., thoughts against the position of the subject) was a minority member was the second factor of interest. Six different group compositions were used. All transcripts were written so that the addition of the subject, when group interaction was expected, resulted in either the majority growing larger, or balanced the distribution of individuals on the issue. In other words, the subject never held the minority position in the transcript. Therefore, for each type of group composition, two transcripts were used. If the individual was in favor of establishing English as the official language of the United States, she/he received a transcript where either the majority of the group members were in favor of the issue, or the result of the subject's joining the group (in the "expect to join the group" condition) balanced the distribution. Likewise, if the individual was against establishing English as the official language of the U.S., the majority of group members were also against the issue (except for the "expect to join the group" conditions). The

group compositions used in the study are presented in Table

1.

Table 1

Group Composition for Each Experimental Condition.

Group Composition in Transcript Read by Subject	Group Composition when Subject Expected to Join the Group	Group Composition when Subject Did Not Expect to Join the Group
(5,0) (0,5)	(6,0) (0,6) A1	(5,0) (0,5) B1
(4,1) (1,4)	(5,1) (1,5) A2	(4,1) (1,4) B2
(2,3) (3,2)	(3,3) (3,3) A3	(3,2)* (2,3)* B3
(6,0) (0,6)	(7,0) (0,7) A4	(6,0) (0,6) B4
(5,1) (1,5)	(6,1) (1,6) A5	(5,1) (1,5) B5
(3,3) (3,3)	(4,3) (3,4) A6	(3,3) (3,3) B6

* The (3,2), (2,3) groups received different transcripts in
the expect and do not expect to join conditions because had
this been held constant, the subjects would have been in the
minority in the "do not expect to join" condition.

The group composition as it appeared in the transcripts

read by all subjects is displayed in the left column of

Table 1. Subjects in the first condition read a transcript

where all members of the group were in agreement regarding

passing a law that would establish English as the official

language of the United States. Subjects who were in favor

of passing such a law received the (5,0) transcript, and

subjects who were against passing the law received the (0,5)

transcript. The subjects who expected to interact with

others were led to believe that their presence would change

the group composition once they joined. The new group

compositions in the expect to join conditions are displayed

in the middle column of Table 1. Subjects in the first

condition who expected to interact with others were led to

believe that the composition of their group, once they

joined, would be six individuals in favor of passing a law

to establish English as the official language of the U.S.

when they were in favor of such a law. Individuals who were

against passing the law expected to be a member of a group

where six members were against the issue. The right column

in Table 1 reflects the group composition when subjects did

not expect to interact with others and, with one exception,

is a direct replication of the left column in Table 1. When

subjects expected to interact with their groups in the third

condition (the cell marked A3), and they were in favor of

passing the English language law, they received a transcript

where two members were in favor of passing the law, and

three group members were against the law. Although the

subjects' position was in the minority in the transcript,

they believed that once they joined the group there would be

an equal number of individuals in favor and against the
issue. When subjects did not expect to interact with the
group in the third condition (the cell marked B3), and they
were in favor of passing the English language law, they
received a transcript where three members were in favor of
passing the law, and two group members were against the law.
In this case, the subjects' position was held by the
majority of group members. The third row in Table 1 is the
only one where subjects received different transcripts in
the "expect" and "do not expect to join" conditions.

The exact number of arguments/counterarguments in the
conversation transcript were held constant across all
conditions at fifteen. Obviously, more than a single
argument was attributed to some of the group members. In
the conditions where minority members were present, the
transcript also included several counterarguments, however,
the total number of statements remained constant at fifteen.
Two different group sizes were used in order to establish
comparable comparison groups for the "expect"/"do not
expect" group interaction manipulation (i.e., cells A1, A2,
and A3 are identical to cells B4, B5, and B6). Thus, a 2
(expect/do not expect group interaction) X 6 (group
composition) factorial design was used.

Procedure

Upon arrival, subjects were told that the researcher
was interested in people's position on two social issues.

First the subjects responded to a pretest comprised of two questions regarding the government passing a law that would establish English as the official language of the United States (Appendix B). The first question required the subjects to respond categorically (In favor/Against) to the issue, and the second question required them to respond to a 21-point bipolar scale (ranging from 50 to -50 in intervals of 5 with a midpoint of zero) indicating the degree to which she/he was in favor/against the issue. After responding to the pretest, the subjects were given the appropriate conversation transcript and asked to read it carefully (Appendix C contains the conversation transcripts for each experimental condition). Subjects who expected to join the group were told, prior to receiving the transcript, that they would join their respective groups after completing a few more tasks independently. Each subject was then given 7 minutes to read over the conversation transcript.

After reading the conversation transcript, all subjects were asked to respond once again to the 21-point scale and to indicate their position on the issue. Next they were given ten minutes to list all of their thoughts regarding the issue of establishing English as the official language of the United States (Appendix D). Once they completed listing their thoughts on the first issue, they were asked to indicate their opinion regarding the legal marriage between homosexuals (Appendix E). The subjects who expected

group interaction were told that the group they were going to join had not yet discussed this issue, but would do so once they joined them. The subjects were then given ten minutes to write their thoughts for the second issue (Appendix F). Upon completion of the final task, subjects were debriefed (Appendix G) and thanked for their participation.

CHAPTER 3

RESULTS

In order to test the hypotheses corresponding to attitude change, change scores were computed for all individuals. Change scores were calculated by subtracting the pretest attitude score from the posttest attitude score for individuals who were in favor of establishing English as the official language of the U.S (positive change scores indicate movement away from the minority's position, negative change scores reflect movement toward the minority position). For subjects who were against establishing English as the official language of the United States the posttest attitude scores were subtracted from the pretest attitude scores (positive change scores indicate movement away from the minority's position, negative change scores reflect movement toward the minority position). The means for both the pretest and the posttest attitude scores for each condition are presented in Table 2 below.

Table 2

Mean Attitude Scores and Standard Deviations at Pretest and

Posttest for Subjects in Favor of and Against Establishing

English as Official U.S. Language

Group Composition in Transcript	Subjects in Favor of issue		Subjects Against issue	
	Pre	Post	Pre	Post
5,0	31.33	32.00	-25.71	-37.86
0,5	13.39	14.66	18.36	16.56
	(30)		(7)	
4,1	32.19	27.65	-20.00	-24.50
1,4	12.95	13.25	5.77	8.64
	(32)		(10)	
2,3	29.26	20.00	-22.86	-26.43
3,2	12.31	22.76	6.99	12.82
	(34)		(7)	
6,0	30.94	25.56	-28.00	-31.00
0,6	13.93	18.81	17.35	19.41
	(32)		(10)	
5,1	33.33	24.09	-15.55	-23.33
1,5	12.54	24.05	10.44	14.57
	(33)		(9)	
3,3	29.55	28.64	-21.50	-25.50
3,3	13.62	12.27	12.26	15.54
	(22)		(10)	

Note. The first number in each column corresponds to the mean and the second to the standard deviation.

The mean change score for each type of subject (in favor/against), for each condition within the experimental design is presented in Table 3 below.

Table 3

Mean Attitude Change Scores and Standard Deviations for

Subjects in Favor of and Against Establishing English as

Official U.S. Language

Group Composition in Transcript	Subjects In Favor of Issue	Subjects Against Issue
5,0	.66	12.14
0,5	10.32	14.39
4,1	-4.53	4.50
1,4	11.59	7.24
2,3	-9.26	3.57
3,2	17.45	12.48
6,0	-4.37	3.00
0,6	15.33	12.52
5,1	-9.24	7.78
1,5	22.50	6.67
3,3	-.91	4.00
3,3	7.01	11.50

Note. The first number in the column corresponds to the mean and the second to the standard deviation.

Table 3 reveals that there were large differences between those subjects who favored the issue and those who opposed it with respect to attitude change. More specifically, those who favored the issue tended to become less extreme in their final attitude whereas those who opposed the issue became more extreme in their opposition. A one-way analysis of variance with two levels (subject's position on the issue) was performed on the change scores. The analysis of variance source table is presented in Table 4.

Table 4

<u>Analysis of Variance Source Table for Change Scores:</u>

<u>Subjects In Favor and Against English as Official Language</u>

Source	Degrees of Freedom	Mean Square	<u>F</u>	<u>p</u>
Between Groups	1	4540.83	21.05	.000
Within Groups	234	215.74		

Unfortunately, the design of the study does not allow for unequivocal conclusions regarding the differences between those who were in favor of and those who were opposed to Establishing English as the official language of the United States. In addition, subject's position cannot be used as an independent variable because the sample of subjects who opposed the issue was very small. It is for these reasons that the data obtained from individuals who were in favor of and those who were against establishing English as the official language of the United States were analyzed separately.

<u>Attitude Change Due to Minority Influence and Expected Group</u>
<u>Interaction</u>

It was hypothesized that as the size of the minority faction grew, the amount of influence that faction had would also increase. It was also hypothesized that those who expected to interact with others would change less toward

the minority position than those who did not expect to interact with her/his respective group.

Subjects in favor of English as official U.S. language.

The mean change scores for subjects who favored establishing English as the official language of the United States for each condition within the experimental design are presented in Table 5 below.

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Table 5

Mean Attitude Change Scores and Standard Deviations for Subjects in Favor of Establishing English as Official U.S. Language

	Condition	
Group Composition in Transcript	Subjects Expecting Group Interaction	Subjects Expecting No Group Interaction
5,0	2.81 11.96 (16)	-1.79 7.74 (14)
4,1	-2.86 8.02 (18)	-5.83 13.85 (16)
2,3	-4.06 12.14 (16)	-13.89 20.33 (18)
6,0	-.36 16.11 (14)	-7.50 14.37 (18)
5,1	-6.25 12.97 (16)	-12.06 28.94 (17)
3,3	-1.50 8.51 (10)	-.42 5.82 (12)

Note. The first number in the column corresponds to the mean, the second to the standard deviation and the third to the number of individuals within the cell.

A 2 (expect/do not expect to join group) X 6 (group composition in transcript) analysis of variance was performed on the change scores presented in Table 5. The analysis of variance source table is presented in Table 6.

Table 6

Analysis of Variance Source Table for Change Scores

Expected Interaction and Group Composition: Subjects in

Favor of English as Official U.S. Language

Source	Degrees of Freedom	Mean Square	F	p
Transcript	5	500.76	2.14	.06
Join Group	1	1260.99	5.38	.02
Transcript X Join Group	5	94.17	.40	.85
Within Groups	171	40104.78		

As predicted, a significant main effect was found for expected group interaction. Those who expected to interact with the group whose transcript they read changed less toward the minority position (M=-2.09) than those who did not expect group interaction (M=-7.47).

There was a marginal main effect for the size of the minority faction. Four a priori determined follow up tests were performed. The first contrasted a weighted average of the cells with unanimous groups (cells A1, B1, A4, and B4 in Table 1) to a weighted average of the cells with a single minority member (cells A2, B2, A5, and B5 in Table 1). There was a marginally significant difference between the two weighted averages [t (67)=1.85, p=.07]. Those who were exposed to unanimous groups changed less (M=-1.93) toward the minority position (opposed to establishing English as

the official language) than those who were exposed to a single minority member (M=-6.92). The second follow up test contrasted a weighted average of the cells with one minority member (cells A2, B2, A5, and B5 in Table 1) to a weighted average of the cells with more than one minority member (cells B3 and A6 in Table 1). The difference between the two weighted averages did not reach statistical significance [t (51)=.27, p=.79]. Those who were exposed to more than one minority member (M=-9.46) did not change their position toward the minority significantly more than those who were exposed to a single minority member (M=-6.92). The third planned comparison contrasted a weighted average of the cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted average of the cells with balanced groups (cells A3 and B6 in Table 1). Individuals exposed to balanced groups (M=-2.50) changed less toward the minority position than individuals exposed to minority influence (M=-7.70), [t (63)=1.98, p=.05]. The fourth planned comparison contrasted a weighted average of the balanced groups (cells A3 and B6 in Table 1) to a weighted average of the unanimous groups (cells A1, B1, A4, and B4 in Table 1). Although individuals exposed to balanced groups changed more (M=-2.50) toward the minority position than individuals exposed to unanimous groups (M=-1.93), this difference was not statistically significant [t (58)=.22, p=.82]. Possible changes in the dichotomous (In

favor/Against) responses were also assessed. The first analysis involved contrasting those who expected to join their respective groups with those who did not expect group interaction, regardless of the group composition within the conversation transcript. The relative frequency of individuals who changed their position from in favor to against establishing English as the official language of the United States is presented in Table 7.

Table 7

Relative Frequency of Change from In Favor to Against
Establishing English as Official U.S. Language: Expect and
Do Not Expect Group Interaction Conditions

	Condition	
Change	Expect Group Interaction	Do Not Expect Group Interaction
Yes	.06	.09
No	.94	.91

There was not a significant relationship between condition (expect/do not expect group interaction) and changes in position (In favor/Against) regarding the issue of establishing English as the official language of the United States, [χ^2 (1)=.77, p=.38]. The second analysis involved contrasting the subjects who were exposed to minority influence (both single and supported minorities) to those who were exposed to either unanimous or balanced groups.

The relative frequency of individuals who changed their position from in favor to against establishing English as the official language of the United States is presented in Table 8.

Table 8

Relative Frequency of Change from In Favor to Against Establishing English as Official U.S. Language: Minority Vs. Non-Minority Influence

	Condition	
	Minority Influence	Non-Minority Influence
Change		
Yes	.09	.06
No	.91	.94

There was not a significant relationship between condition (Minority vs. Non-minority Influence) and changes in position (In favor/Against) regarding the issue of establishing English as the official language of the United States, $[\chi^2 (1)=.50, p=.48]$.

Subjects against English as official U.S. language.

The mean change scores for subjects who opposed establishing English as the official language of the United States for each condition within the experimental design are presented in Table 9 below.

Table 9

Mean Attitude Change Scores and Standard Deviations for

Subjects Against Establishing English as Official U.S.

Language

	Condition	
Group Composition in Transcript	Subjects Expecting Group Interaction	Subjects Expecting No Group Interaction
5,0	(0)	12.14 14.39 (7)
4,1	5.00 8.94 (6)	3.75 4.79 (4)
2,3	7.50 17.68 (2)	2.00 12.04 (5)
6,0	-3.33 10.80 (6)	12.50 8.66 (4)
5,1	8.33 8.16 (6)	6.67 2.88 (3)
3,3	-5.00 7.07 (2)	6.25 11.57 (8)

Note. The first number in the column corresponds to the mean, the second to the standard deviation and the third to the number of individuals within the cell.

An omnibus analysis of variance performed upon the means presented in Table 9 would not lend itself to meaningful interpretation given the small sample sizes and the single empty cell. However, an one-way analysis of variance with two levels (expect/do not expect group

interaction) was performed on the mean change scores
presented in Table 9. The difference between subjects who
expected to interact with their respective groups ($\underline{M}$=2.95)
and those who did not expect group interaction ($\underline{M}$=7.42) only
approached statistical significance [$\underline{F}$(1,51)=2.24, $\underline{p}$=.14].
Interestingly, the pattern of means for individuals who were
opposed to establishing English as the official language of
the U.S. is opposite that of the subjects who were in favor
of the issue. In the latter case, subjects changed their
position toward the minority more when they did not expect
group interaction than when they expected to interact with
their respective group. More specifically, those who were
in favor of the issue were most influenced by the minority
position when they did not expect to interact with others,
whereas those who opposed the issue became more extreme in
their opposition when they did not expect group interaction
(i.e., less influenced by the minorities arguing in favor of
the issue). Four planned contrasts parallel to those
carried out on the data obtained from subjects in favor of
the issue were performed on the means presented in Table 9.
The first contrasted a weighted average of the cells with
unanimous groups (cells B1, A4, and B4 in Table 1) to a
weighted average of the cells with a single minority member
(cells A2, B2, A5, and B5 in Table 1). Although those who
were exposed to unanimous groups ($\underline{M}$=6.76) changed their
position in a direction opposite that of the minority more

than those exposed to a single minority member (M=6.05), the difference between the two weighted averages did not reach statistical significance [t (42)=.31, p=.75]. The second comparison contrasted a weighted average of the cells with one minority member (cells A2, B2, A5, and B5 in Table 1) to a weighted average of the cells with more than one minority member (cells B3 and B6 in Table 1). As predicted, supported minorities were more influential (M=0.00) than single minorities (M=6.05), however, this difference only approached statistical significance [t (42)=1.45, p=.15. The third planned comparison contrasted a weighted average of the cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted average of the cells with balanced groups (cells A3 and B6 in Table 1). The difference between individuals exposed to balanced groups (M=6.5) and those exposed to groups with minority members (M=4.42) did not reach statistical significance [t (42)=-.72, p=.48]. The fourth planned comparison contrasted a weighted average of the balanced groups (cells A3 and B6 in Table 1) to a weighted average of the unanimous groups (cells B1, A4, and B4 in Table 1). The difference between individuals exposed to unanimous groups (M=6.76) and those exposed to balanced groups (M=6.5) was not statistically significant, [t (42)=.04, p=.96]. Parallel analyses assessing possible changes in the dichotomous (In favor/Against) responses were not necessary for the sample

of subjects who were opposed to establishing English as the official language because no single subject changed her/his position on the issue. Those who were initially in favor of the issue changed their position more frequently (about 8% of the subjects) than those who were against establishing English as the official language of the United States (Fisher's Exact, p=.00).

Minority Influence Thought Listing Analyses

The arguments and counterarguments generated by each subject were content analyzed by two independent coders. Each coder determined whether the statements listed represented thoughts in favor of (arguments), against (counterarguments), or irrelevant to the issue, for both the issue of establishing English as the official language of the United States and allowing homosexuals to marry legally. The interobserver reliability (percentage agreement) for the two coders for the entire data set was 90%. The number of arguments and counterarguments counted by each coder was correlated. The correlations between each coder's ratings were large and statistically significant (i.e., arguments English issue r=.90, p< .001; counterarguments English issue r=.89, p<.001; arguments homosexual issue r=.91, p<.001; counterarguments homosexual issue r=.89, p<..001). The written thoughts of each subject were also compared to their respective conversation transcript. Thoughts that the subject generated that were not present in the conversation

transcript were considered unique thoughts. Thoughts listed by the subject that were present in the conversation transcript were considered redundant. Written thoughts simply refuting an argument without stating additional information were not considered unique. Two coders categorized each written thought as being either unique or redundant with the conversation transcript. The interobserver agreement (percentage agreement) for the two coders was 86%. The correlation between the two coder's ratings was $r=.79$ and $r=.84$ for unique arguments and unique counterarguments, respectively. Both correlations were highly significant (i.e., $p< .001$). In cases where the coders were not in agreement regarding the classification of each thought, a third coder (the author) resolved the discrepancy. It should be noted that arguments/counterarguments were reverse scored for individuals who expressed that they were against establishing English as the official language of the United States. In other words, individuals against the issue would have placed thoughts in line with their opinion in the counterarguments column and the thoughts against their position in the arguments column. Cognitive fluency scores were computed by adding the listed arguments to the listed counterarguments.

Divergent Thinking Analyses: Cognitive Fluency English

Language issue

It was hypothesized that those who were exposed to minority influence would generate significantly more thoughts (regardless of thought type) than those who were exposed to unanimous or balanced group transcripts. The mean cognitive fluency scores for each cell of the experimental design are presented in Table 10.

Table 10

Mean Cognitive Fluency Scores and Standard Deviations for

Establishing English as Official Language

	Condition			
Group Composition in Transcript	Subjects Expecting Group Interaction		Subjects Expecting No Group Interaction	
	In Favor	Against	In Favor	Against
5,0	9.63 3.11	***	8.29 2.23	8.71 2.98
4,1	8.71 3.07	7.00 2.61	8.78 2.21	8.00 2.94
2,3	8.31 2.15	9.50 2.12	7.50 2.00	8.80 2.28
6,0	8.07 2.64	9.83 5.38	9.44 2.79	8.50 2.08
5,1	8.94 2.98	9.33 1.86	8.06 2.08	8.00 1.00
3,3	8.80 3.19	7.00 4.24	9.00 2.79	8.75 1.03

Note. The first number in the column corresponds to the mean and the second to the standard deviation.

Subjects in favor of English as official U.S. language.

In order to test the hypothesis that influence type and expected group interaction would have an effect upon the number of arguments and counterarguments individuals would generate regarding establishing English as the official language of the United States, a 2 (expect/do not expect to join group) X 6 (group composition in transcript) analysis of variance was performed on the mean cognitive fluency scores presented in Table 10 for those subjects who were in favor of establishing English as the official language of the United States. The analysis of variance source table is presented in Table 11.

Table 11

Analysis of Variance Source Table for Cognitive Fluency: Subjects in Favor of English as Official Language

Source	Degrees of Freedom	Mean Square	F	p
Transcript	5	5.26	.78	.56
Join Group	1	3.52	.52	.47
Transcript X Join Group	5	7.34	1.08	.37
Within Groups	171	6.77		

Contrary to predictions, there were no differences between individuals exposed to minority members, unanimous or balanced groups. In addition, there were no differences between the number of total thoughts listed by individuals

who expected to interact with their respective groups and those who did not expect group interaction. Two a priori determined contrasts tests were performed. The first compared a weighted average of cells with minority members (cells A2, B2, B3, A5, B5 and A6 in Table 1) to a weighted average of cells with unanimous and balanced groups (cells A1, B1, A3, A4, B4, and B6 in Table 1). It was hypothesized that individuals exposed to minority influence would exhibit greater degrees of cognitive fluency than those who were exposed to unanimous and balanced groups. The data, however, do not support this prediction [t (171)=.762, p=.45. Those who were exposed to minority influence (M=8.42) did not generate significantly more total thoughts than those exposed to unanimous or balanced groups (M=8.82). The second a priori determined comparison contrasted a weighted average of cells with minority members (cells A2, B2, B3, A5, B5 and A6 in Table 1) to a weighted average of cells with balanced groups (cells A3 and B6 in Table 1). Individuals who were exposed to minority influence (M=8.42) did not generate significantly more total thoughts than those exposed to balanced groups (M=8.60), [t (171)=.19, p=.85].

Subjects against English as official U.S. language.

A one-way analysis of variance with 2 levels (expect/do not expect group interaction) was performed on the mean cognitive fluency scores presented in Table 10 for those

subjects who were against establishing English as the official language of the United States. The difference between those who expected (M=8.64) and those who did not expect to interact with their respective groups (M=8.55) was not statistically significant [F (1,51)=.01, p=.91. Planned contrasts parallel to those done with the subjects who were in favor of the issue were performed. The first compared a weighted average of cells with minority members (cells A2, B2, B3, A5, B5 and A6 in Table 1) to a weighted average of cells with unanimous and balanced groups (cells B1, A3, A4, B4, and B6 in Table 1). Contrary to predictions, those who were exposed to minority influence did not generate a significantly greater number of total thoughts (M=8.15) than those exposed to unanimous and balanced groups (M=9.03) [t (8)=1.17, p=.28]. The second a priori determined comparison contrasted a weighted average of cells with minority members (cells A2, B2, B3, A5, B5 and A6 in Table 1) to a weighted average of cells with balanced groups (cells A3 and B6 in Table 1). Individuals who were exposed to minority influence (M=8.15) did not generate significantly more total thoughts than those exposed to balanced groups (M=8.90), [t (3)=1.1, p=.36].

Analysis of Arguments and Counterarguments: English Language Issue

The arguments and counterarguments generated by each subject were also analyzed separately. Table 12 contains

the mean number of arguments and counterarguments for each cell in the experimental design for those subjects who were in favor of establishing English as the official language of the United States. Table 13 contains the mean number of arguments and counterarguments for those subjects who were opposed to establishing English as the official U.S. language.

Table 12

Mean Arguments and Counterarguments and Standard Deviations

for Subjects in Favor of Establishing English as Official

Language of the United States

	Condition			
Group Composition in Transcript	Subjects Expecting Group Interaction		Subjects Expecting No Group Interaction	
	ARG	CARG	ARG	CARG
5,0	6.38	3.25	4.93	3.36
	1.75	2.11	1.26	1.60
4,1	6.00	2.71	5.39	3.39
	2.18	1.49	1.88	1.82
2,3	4.81	3.50	4.11	3.39
	1.72	2.19	1.68	1.50
6,0	5.71	2.36	4.83	4.61
	2.05	1.34	2.09	1.68
5,1	5.06	3.88	4.88	3.18
	2.20	2.33	1.53	1.98
3,3	6.10	2.70	5.75	3.08
	1.91	2.00	1.91	1.62

Note. The first number in the column corresponds to the mean and the second to the standard deviation. Arg=Arguments and Carg=counterarguments.

Table 13

Mean Arguments and Counterarguments and Standard Deviations

for Subjects Against Establishing English as Official

Language of the United States

	Condition			
Group Composition in Transcript	Subjects Expecting Group Interaction		Subjects Expecting No Group Interaction	
	ARG	CARG	ARG	CARG
5,0.	***	***	5.43 2.94	3.28 2.13
4,1	4.50 1.52	2.50 1.64	5.75 3.10	2.25 1.25
2,3	5.50 2.12	4.00 0.00	4.80 1.30	4.00 1.41
6,0	6.17 2.04	3.67 3.61	6.75 1.26	1.75 1.70
5,1	6.83 2.04	2.50 1.64	5.33 .58	2.67 .58
3,3	6.00 5.66	1.00 1.41	7.25 1.48	1.50 1.51

Note. The first number in the column corresponds to the mean
and the second to the standard deviation. Arg=Arguments and
Carg=counterarguments.

Subjects in favor of English as official U.S. language.

In order to test the hypothesis that influence type and

expected group interaction would have an effect upon the

number of arguments individuals would generate regarding

establishing English as the official language of the United

States, a 2 (expect/do not expect to join group) X 6 (group

composition in transcript) analysis of variance was

performed on the mean number of arguments generated by

subjects who were in favor of the issue. The analysis of

variance source table is presented in Table 14.

Table 14

Analysis of Variance Source Table for Arguments Generated:

English as the Official Language: Subjects in Favor of Issue

Source	Degrees of Freedom	Mean Square	$\underline{F}$	$\underline{p}$
Transcript	5	9.14	2.62	.03
Join Group	1	22.40	6.44	.01
Transcript X Join Group	5	1.48	.42	.83
Within Groups	171	3.47		

As predicted, the expectation of group interaction had

an effect upon the number of arguments the individuals

generated. Those who expected to interact with the group

whose transcript they read generated significantly more

arguments in favor of their own position ($\underline{M}$=5.64) than those

who did not expect to interact with their groups ($\underline{M}$=4.94).

There was also a significant main effect for group

composition within the conversation transcript. Three a

priori determined contrasts were performed to probe the main

effect for group composition. The first contrasted a

weighted average of cells with minority members (cells A2,

B2, B3, A5, B5 and A6 in Table 1) to a weighted average of

cells with unanimous and balanced groups (cells A1, B1, A3,

A4, B4, and B6 in Table 1). Individuals exposed to minority influence ($\underline{M}$=5.19) did not generate significantly more arguments in favor of their position than those exposed to either balanced or unanimous groups ($\underline{M}$=5.38) [$\underline{t}$ (171)=.518, $\underline{p}$=.61]. The second planned comparison contrasted a weighted average of the balanced groups (cells A3 and B6 in Table 1) to a weighted average of the cells with minority members (cells A2, B2, B3, A5, B5, and A6). Those who were exposed to minority influence ($\underline{M}$=5.19) did not generate significantly more thoughts in favor of their own position than did those exposed to balanced groups ($\underline{M}$=5.21) [$\underline{t}$ (171)=.05, $\underline{p}$=.95]. Finally, the third planned comparison contrasted a weighted average of cells where the subject was exposed to minority influence and expected to interact with her/his respective group (cells A2, A5, and A6) to a weighted average of all remaining cells. It was hypothesized that those who were exposed to minority influence and expected to interact with others would be more motivated than other subjects to defend their own position. Although those who were exposed to minority influence and expected to interact with others generated more arguments ($\underline{M}$=5.68) than all other subjects ($\underline{M}$=5.15), this difference only approached statistical significance [$\underline{t}$ (171)=1.54, $\underline{p}$=.13].

In order to test the hypothesis that influence type and expected group interaction would have an effect upon the

number of counterarguments individuals would generate

regarding establishing English as the official language of

the United States, a 2 (expect/do not expect to join group)

X 6 (group composition in transcript) analysis of variance

was performed on the mean number of counterarguments

generated. The analysis of variance source table is

presented in Table 15.

Table 15

Analysis of Variance Source Table for Counterarguments

Generated:English as the Official Language

Source	Degrees of Freedom	Mean Square	F	p
Transcript	5	2.03	.60	.70
Join Group	1	8.17	2.42	.12
Transcript X Join Group	5	8.09	2.40	.04
Within Groups	171	3.37		

Contrary to predictions, there was no main effect for

group composition within the transcript. There was a

marginal main effect for whether or not the subject expected

to interact with her/his respective group. Those who

expected to interact with their group ($\underline{M}$=3.12) generated

slightly fewer counterarguments than those who did not

expect to interact with others ($\underline{M}$=3.54). There was a

significant interaction between the two independent

variables. An analysis of simple main effects was conducted

in order to probe the locus of the two-way interaction. The
transcript version was held constant and differences between
those who expected and those who did not expect to join
their respective groups were examined. The results of the
simple main effects analysis are presented in Table 16
below.

Table 16

Simple Main Effects Analysis:English Counterarguments at the

Two Levels of Expected Group Interaction

Source	Degrees of Freedom	Mean Square	$\underline{F}$	$\underline{p}$
Group Interaction Variable at Transcript				
(5,0)	1	.09	.02	ns
(4,1)	1	3.65	1.08	ns
(2,3)	1	.10	.03	ns
(6,0)	1	39.86	11.82	<.01
(5,1)	1	4.04	1.19	ns
(3,3)	1	.80	.24	ns
Within Groups	171	3.37		

The only significant simple main effect was for the
unanimous group transcript with six individuals (see means
in Table 12). In addition to the simple main effects
analysis, three a priori determined contrasts were performed
on the mean number of counterarguments generated by each
subject. The first contrasted a weighted average of cells
with minority members (cells A2, B2, B3, A5, B5, and A6 in
Table 1) to a weighted average of cells with unanimous and
balanced groups (cells A1, B1, A3, A4, B4, and B6 in Table
1). Individuals exposed to unanimous and balanced groups

did not generate significantly fewer counterarguments ($\underline{M}$=3.36) than those who were exposed to minority influence ($\underline{M}$=3.23) [$\underline{t}$ (171)=.55, $\underline{p}$=.58]. The second comparison involved a weighted average of the cells with balanced groups (cells A3 and B6 in Table 1) to cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1). Those exposed to minority influence ($\underline{M}$=3.23) did not generate a significantly greater number of counterarguments than did those who were exposed to balanced groups ($\underline{M}$=3.32) [$\underline{t}$ (171)=.21, $\underline{p}$=.83]. The third planned contrast involved a weighted average of cells where the subject was exposed to minority influence and did not expect to interact with her/his respective group (cells B2, B3, and B5) to a weighted average of all remaining cells. It was hypothesized that these subjects would generate the most counterarguments because they would think divergently and would not have to worry about defending their position to others. Contrary to predictions, those who were exposed to minority influence and did not expect group interaction ($\underline{M}$=3.32) did not generate significantly more counterarguments than any other subjects ($\underline{M}$=3.32).

Subjects against English as the official U.S. language.

A one-way analysis of variance with two levels (expect/do not expect group interaction) was performed on the mean number of arguments generated by subjects who were opposed to establishing English as the official language.

Contrary to predictions, the differences between those who expected ($\underline{M}$=5.82) and those who did not expect group interaction ($\underline{M}$=6.00) was not statistically significant [$\underline{F}$ (1,51)=.09, $\underline{p}$=.76]. Three planned comparisons were performed. The first contrasted a weighted average of cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted average of cells with unanimous and balanced groups (cells B1, A3, A4, B4, and B6 in Table 1). Contrary to predictions, individuals exposed to minority influence ($\underline{M}$=5.5) did not generate significantly more arguments in favor of their position than those exposed to either balanced or unanimous groups ($\underline{M}$=6.33) [$\underline{t}$ (3)=.79, $\underline{p}$=.49]. The second planned comparison contrasted a weighted average of the balanced groups (cells A3 and B6 in Table 1) to a weighted average of the cells with minority members (cells A2, B2, B3, A5, B5, and A6). Those who were exposed to minority influence ($\underline{M}$=5.5) did not generate significantly more thoughts in favor of their own position than did those exposed to balanced groups ($\underline{M}$=6.9) [$\underline{t}$ (3)=.77, $\underline{p}$=.50]. Finally, the third planned comparison contrasted a weighted average of cells where the subject was exposed to minority influence and expected to interact with her/his respective group (cells A2, A5, and A6) to a weighted average of all remaining cells. It was hypothesized that those who were exposed to minority influence and expected to interact with others would be more motivated than other subjects to defend

their own position. The data, however, do not support this prediction. Those who were exposed to minority influence and expected to interact with others (M=5.71) did not generate significantly more arguments than all other subjects (M=6.0) [t (2)=.07, p=.96].

In order to test the hypothesis that expected group interaction would have an effect upon the number of counterarguments individuals would generate regarding establishing English as the official language of the United States, a one-way analysis of variance with two levels (expect/do not expect group interaction) was performed on the mean number of counterarguments generated by those who were opposed to the issue. Contrary to predictions, there was no main effect for expected group interaction. Those who expected to interact with their group did not generate significantly fewer counterarguments (M=2.81) than those who did not expect group interaction (M=2.55). In addition to the analysis of variance, three a priori determined contrasts were performed on the mean number of counterarguments generated by each subject who was against the issue. The first contrasted a weighted average of cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted average of cells with unanimous and balanced groups (cells B1, A3, A4, B4, and B6 in Table 1). Individuals exposed to minority influence (M=2.65) did not generate significantly more counterarguments than those

exposed to either unanimous or balanced groups ($\underline{M}$=2.92) [$\underline{t}$ (19)=.73, $\underline{p}$=.47]. The second comparison involved a weighted average of the cells with balanced groups (cells A3 and B6 in Table 1) to cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1). Those exposed to minority influence ($\underline{M}$=2.65) did not generate a significantly greater number of counterarguments than did those who were exposed to balanced groups ($\underline{M}$=2.0) [$\underline{t}$ (14)=.68, $\underline{p}$=.51]. The third planned contrast involved a weighted average of cells where the subject was exposed to minority influence and did not expect to interact with her/his respective group (cells B2, B3, and B5 in Table 1) to a weighted average of all remaining cells. Contrary to predictions, those who were exposed to minority influence and did not expect group interaction ($\underline{M}$=3.0) did not generate significantly more counterarguments than any other subjects ($\underline{M}$=2.72).

Divergent Thinking Analyses: Unique Thoughts Regarding Establishing English as Official U.S. Language

The fact that subjects read a conversation transcript regarding the first issue presented a special problem with respect to the detection of a divergent thought style in those exposed to minority influence. One would expect the individuals exposed to minority influence to generate more thoughts against their own position for this issue simply because the read more counterarguments in the conversation transcript. An analysis of the unique thoughts listed

(i.e., those generated by the subject that were not present in the conversation transcript) by each subject should provide a clearer picture of the way in which individuals were thinking about the issue.

The mean number of total unique thoughts for each cell in the experimental design are presented in Table 17.

Table 17

Mean Total Unique Thoughts and Standard Deviations for

Establishing English as Official Language

	Condition			
Group Composition in Transcript	Subjects Expecting Group Interaction		Subjects Expecting No Group Interaction	
	In Favor	Against	In Favor	Against
5,0	7.44 2.68	***	5.93 2.46	6.86 2.48
4,1	3.43 1.69	5.00 2.76	4.83 2.70	5.75 1.71
2,3	5.31 1.62	6.00 2.83	3.94 2.04	4.40 2.41
6,0	4.50 1.40	8.33 5.54	6.06 2.13	4.50 2.65
5,1	4.25 1.98	3.67 1.97	3.47 1.28	2.67 1.53
3,3	5.90 2.42	4.50 6.36	5.50 1.73	5.12 1.46

Note. The first number in the column corresponds to the mean and the second to the standard deviation.

Results parallel to those expected for the arguments and counterarguments generated regarding English as the official language of the United States were expected for the unique arguments and counterarguments.

Subjects in favor of English as official U.S. language.

In order to test the hypothesis that influence type and expected group interaction would have an effect upon the number of unique arguments and counterarguments generated, a

2 (expect/ do not expect to join group) X 6 (group
composition in transcript) analysis of variance was
performed on the means corresponding to those who were in
favor of the issue.   The analysis of variance source table
is presented in Table 18.

Table 18

Analysis of Variance Source Table for Total Unique Thoughts:

Subjects in Favor of English as the Official Language

Source	Degrees of Freedom	Mean Square	F	p
Transcript	5	33.07	7.80	.00
Join Group	1	2.49	.59	.44
Transcript X Join Group	5	13.02	3.08	.01
Within Groups	171	4.24		

As expected, there was a main effect for the group
composition within the conversation transcript.   There was
no main effect for whether or not the subject expected to
interact with her/his respective group.   Those who expected
to interact with their group (M=5.20) did not generate a
significantly larger number of unique thoughts than those
who did not expect to interact with their group (M=4.90).
There was a significant interaction between the two
independent variables.   An analysis of simple main effects
was conducted in order to probe the locus of the two-way
interaction.   The transcript version was held constant and

differences between those who expect to join their respective groups were examined. The results of the simple main effects analysis are presented in Table 19 below.

Table 19

Simple Main Effects Analysis: Unique Total Thoughts at the Two Levels of Expected Group Interaction

Source	Degrees of Freedom	Mean Square	F	p
Group Interaction Variable at Transcript				
(5,0)	1	17.00	4.00	<.05
(4,1)	1	9.77	2.30	ns
(2,3)	1	15.90	3.75	ns
(6,0)	1	19.16	4.52	<.05
(5,1)	1	5.02	1.18	ns
(3,3)	1	.87	.20	ns
Within Groups	171	4.24		

The locus of the two-way interaction appears in the cells where individuals were exposed to unanimous groups. Those who were exposed to and expected to interact with a five-person unanimous group generated significantly more unique thoughts than those who were exposed to but did not expect to interact with a five-person unanimous group. This pattern is reversed for the individuals exposed to a six-person unanimous group (see Table 17 for group means). In addition to the simple main effects analysis, two a priori determined contrasts were performed on the mean number of unique thoughts generated by each subject. The first contrasted a weighted average of cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a

weighted average of cells with unanimous and balanced groups
(cells A1, B1, A3, A4, B4, and B6 in Table 1). It was
hypothesized that individuals exposed to minority influence
would generate significantly more unique thoughts than those
who were exposed to unanimous and balanced groups.
Surprisingly, the exact opposite pattern of results was
found. Those exposed to unanimous and balanced groups
generated significantly more unique thoughts ($\underline{M}$=5.83) than
those exposed to minority influence ($\underline{M}$=4.16) [$\underline{t}$ (171)=4.78,
$\underline{p}$=.00]. The second planned contrast compared a weighted
average of cells with minority members (cells A2, B2, B3,
A5, B5, and A6 in Table 1) to a weighted average of cells
with balanced groups (cells A3 and B6 in Table 1). In
direct contrast to expectations, those who were exposed to
minority influence ($\underline{M}$=4.16) generated significantly fewer
unique thoughts than those exposed to balanced groups
($\underline{M}$=5.39) [$\underline{t}$ (171)=2.43, $\underline{p}$=.01.

Subjects against English as official U.S. language.

In order to test the hypothesis that expected group
interaction would have an effect upon the number of unique
arguments and counterarguments generated, a one-way analysis
of variance with two levels (expect/do not expect group
interaction) was performed on the means corresponding to the
subjects who were opposed to establishing English as the
official U.S. language. Those who expected group
interaction ($\underline{M}$=5.59) did not differ statistically from those

who did not expect to interact with their respective groups (M=5.16) [F (1,51)=.25, p=.62]. Two a priori determined contrasts were performed on the mean number of unique thoughts generated by each subject. The first contrasted a weighted average of cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted average off cells with unanimous and balanced groups (cells B1, A3, A4, B4, and B6 in Table 1). As with the subjects who were in favor of the issue, the pattern of means is the opposite of that predicted. That is, those who were exposed to minority influence generated fewer unique thoughts (M=5.00) than those who were exposed to unanimous and balanced groups (M=6.26). This difference, however, only approached statistical significance [t (4)=1.70, p=.17. The second planned contrast compared a weighted average of cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighed average of cells with balanced groups (cells A3 and B6 in Table 1). Those exposed to minority influence did not generate a significantly greater number of unique thoughts (M=5.00) than those exposed to balanced groups (M=5.3) [t (2)=.93, p=.44].

Analysis of Unique Arguments and Counterarguments

The unique arguments and counterarguments generated by each subject were also analyzed separately. Table 20 contains the mean number of unique arguments and counterarguments for each cell in the experimental design

for those subjects who were in favor of establishing English as the official language of the U.S. Table 21 contains same data corresponding to those subjects who were against the issue.

Table 20

Mean Unique Arguments and Counterarguments and Standard Deviations: Subjects in Favor of Establishing English as Official Language

	Condition			
Group Composition in Transcript	Subjects Expecting Group Interaction		Subjects Expecting No Group Interaction	
	UARG	UCARG	UARG	UCARG
5,0	4.12	3.31	2.86	3.07
	1.45	2.15	1.70	1.73
4,1	2.57	.86	2.67	2.16
	1.55	.86	2.19	1.42
2,3	3.44	1.88	2.22	1.72
	1.32	1.15	1.70	1.32
6,0	2.36	2.14	2.11	3.94
	1.15	1.29	1.32	1.73
5,1	2.31	1.94	2.05	1.41
	1.70	1.87	1.14	1.22
3,3	4.50	1.40	4.00	1.50
	1.27	1.84	1.28	1.17

Note. The first number in the column corresponds to the mean and the second to the standard deviation. UARG=Unique Arguments and UCARG= Unique counterarguments.

Table 21

Mean Unique Arguments and Counterarguments and Standard

Deviations: Subjects Against Establishing English as

Official Language

	Condition			
Group Composition in Transcript	Subjects Expecting Group Interaction		Subjects Expecting No Group Interaction	
	UARG	UCARG	UARG	UCARG
5,0	***	***	5.57 2.07	1.28 1.11
4,1	3.33 2.42	1.67 1.50	4.00 1.41	1.75 .50
2,3	4.00 2.83	2.00 0.00	2.60 1.34	1.80 1.30
6,0	4.66 2.16	3.67 3.61	2.75 2.50	1.75 1.70
5,1	2.50 1.38	1.17 .98	1.67 1.15	1.00 1.00
3,3	4.50 6.36	0.00 0.00	4.62 1.68	.50 .53

Note. The first number in the column corresponds to the mean
and the second to the standard deviation. UARG=Unique
Arguments and UCARG= Unique counterarguments.

Subjects in favor of English as official U.S. language.

In order to test the hypothesis that influence type and

expected group interaction would have an effect upon the

number of unique arguments individuals would generate

regarding establishing English as the official language of

the United States, a 2 (expect/do not expect to join group)

X 6 (group composition in transcript) analysis of variance

was performed on the mean number of unique arguments generated. The analysis of variance source table is presented in Table 22.

Table 22

Analysis of Variance Source Table Unique Arguments:

Subjects in Favor of English as the Official Language

Source	Degrees of Freedom	Mean Square	F	$\underline{p}$
Transcript	5	16.46	7.08	.00
Join Group	1	16.53	7.12	.00
Transcript X Join Group	5	2.09	.90	.48
Within Groups	171	2.32		

As predicted, the expectation of group interaction had an effect upon the number of unique arguments the individuals generated. Those who expected to interact with the group whose transcript they read generated significantly more unique arguments ($\underline{M}$=3.20) than those who did not expect to interact with their groups ($\underline{M}$=2.57). There was also a significant main effect for group composition within the conversation transcript. Three planned contrasts were performed to probe the main effect for group composition. The first contrasted a weighted average of cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted average of cells with unanimous and balanced groups (cells A1, B1, A3, A4, B4, and B6 in Table

1). Individuals exposed to minority influence, in direct
contrast to predictions, generated fewer unique arguments
($\underline{M}$=2.59) than those exposed to unanimous and balanced groups
($\underline{M}$=3.11). This difference was marginally significant [$\underline{t}$
(171)=1.85, $\underline{p}$=.06]. The second planned comparison involved
a weighted average of the cells with balanced groups (cells
A3 and B6 in Table 1) and the weighted average of the cells
with minority members (cells A2, B2, B3, A5, B5, and A6).
Contrary to expectations, the individuals exposed to
balanced groups generated significantly more unique
arguments ($\underline{M}$=3.68) than did those who were exposed to
minority influence ($\underline{M}$=2.59), [$\underline{t}$ (171)=2.98, $\underline{p}$=.00]. The
final planned contrast compared a weighted average of cells
where the subject was exposed to minority influence and
expected to interact with her/his respective group (cells
A2, A5, and A6) to a weighted average of all remaining
cells. The difference between these two averages did not
reach statistical significance [$\underline{t}$ (171)=.923, $\underline{p}$=.36]. Those
who were exposed to minority influence and expected to
interact with their respective group did not generate
significantly more unique arguments ($\underline{M}$=2.91) than all other
subjects ($\underline{M}$=2.82).

In order to test the hypothesis that influence type and
expected group interaction would have an effect upon the
number of unique counterarguments individuals would
generate, a 2 (expect/do not expect to join group) X 6

(group composition in transcript) analysis of variance was
performed on the mean number of unique counterarguments
generated. The analysis of variance source table is
presented in Table 23.

Table 23

Analysis of Variance Source Table Unique Counterarguments:

Subjects in Favor of English as the Official Language

Source	Degrees of Freedom	Mean Square	F	p
Transcript	5	19.43	8.33	.00
Join Group	1	6.18	2.65	.10
Transcript X Join Group	5	6.80	2.92	.02
Within Groups	170	2.33		

As expected, there was a significant main effect for
group composition within the conversation transcript. In
addition, there was a marginal main effect for whether or
not the subject expected to interact with her/his respective
group. Those who expected to interact with their group
generated slightly fewer unique counterarguments ($\underline{M}$=2.00)
than those who did not expect to interact with their group
($\underline{M}$=2.33). There was a significant interaction between the
two independent variables. An analysis of simple main
effects was conducted in order to probe the locus of the
two-way interaction. The transcript version was held

constant and differences between those who expected and those who did not expect to join their respective groups were examined. The results of the simple main effects analysis are presented in Table 24 below.

Table 24

Simple Main Effects Analysis: Unique Counterarguments at the Two Levels of Expected Group Interaction

Source	Degrees of Freedom	Mean Square	$\underline{F}$	$\underline{p}$
Group Interaction Variable at Transcript				
(5,0)	1	.43	.18	ns
(4,1)	1	11.79	5.06	<.05
(2,3)	1	.22	.09	ns
(6,0)	1	25.51	10.95	<.01
(5,1)	1	2.32	.99	ns
(3,3)	1	.06	.02	ns
Within Groups	170	2.33		

There was a simple main effect for expected group interaction for the transcript with four majority members and a single minority. Those who expected to interact with their group generated significantly fewer unique counterarguments than those who expected no group interaction. Similarly, the individuals who expected to interact with a unanimous six-person group generated significantly fewer unique counterarguments than those who did not expect to interact with the six-person unanimous group (see Table 19 for group means). In addition to the simple main effects analysis, three planned comparisons were performed on the mean number of unique counterarguments

generated by each subject. The first contrasted a weighted average of cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted average of cells with unanimous and balanced groups (cells A1, B1, A3, A4, B4, and B6 in Table 1). Although the difference between these two averages was statistically significant [t (171)=4.63, p=.00], the pattern of results is opposite that predicted. That is, those who were exposed to unanimous or balanced groups generated significantly more unique counterarguments ($\underline{M}$=2.72) than those exposed to minority influence ($\underline{M}$=1.58). The second comparison involved a weighted average of the cells with balanced groups (cells A3 and B6 in Table 1) to cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1). Those exposed to minority influence did not generate significantly more unique counterarguments ($\underline{M}$=1.58) than those exposed to balanced groups ($\underline{M}$=1.72) [t (171)=.31, p=.75]. The third planned contrast involved a weighted average of cells where the subject was exposed to minority influence and did not expect to interact with her/his respective group (cells B2, B3, and B5) to a weighted average of all remaining cells. The difference between these two weighted average was marginally significant [t (171)=1.84, p=.07], but once again the pattern of means was opposite that predicted. Those who were exposed to minority influence and did not expect group

interaction generated fewer unique counterarguments ($\underline{M}$=1.75) than all other subjects ($\underline{M}$=2.28).

Subjects against English as official U.S. language.

In order to test the hypothesis that expected group interaction would have an effect upon the number of unique arguments individuals would generate regarding establishing English as the official language of the United States, a one-way analysis of variance with two levels (expect/do not expect group interaction) was performed on the mean number of unique arguments generated by those who were opposed to declaring English as the official language of the U.S. The differences between those who expected ($\underline{M}$=3.64) and those who did not expect group interaction ($\underline{M}$=3.90) were not statistically significant [$\underline{F}$ (1,51)=.18, $\underline{p}$=.67]. Three planned contrasts were performed. The first contrasted a weighted average of cells with unanimous and balanced groups (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted average of cells with unanimous and balanced groups (cells B1, A3, A4, B4, and B6 in Table 1). Individuals exposed to minority influence, in direct contrast to predictions, generated fewer unique arguments ($\underline{M}$=3.0) than those exposed to unanimous and balanced groups ($\underline{M}$=4.55). This difference, however, did not reach statistical significance [$\underline{t}$ (3)=1.27, $\underline{p}$=.31]. The second planned comparison involved a weighted average of the cells with balanced groups (cells A3 and B6 in Table 1) and the weighted average of the cells with

minority members (cells A2, B2, B3, A5, and A6). Contrary to expectations, the individuals exposed to balanced groups generated more unique arguments (M=4.5) than those exposed to minority influence (M=3.0). This difference was not statistically significant, however [t (2)=.92, p=.44]. The final planned contrast compared a weighted average of cells where the subject was exposed to minority influence and expected to interact with her/his respective group (cells A2, A5, and A6) to a weighted average of all remaining cells. The difference between these two averages did not reach statistical significance [t (1)=.18, p=.88]. Those who were exposed to minority influence and expected to interact with their respective group did not generate significantly more unique arguments (M=3.14) than all other subjects (M=4.02).

In order to test the hypothesis that expected group interaction would have an effect upon the number of unique counterarguments individuals would generate, a one-way analysis of variance with two levels (expect/do not expect group interaction) was performed on the mean number of unique counterarguments generated by those who were opposed to establishing English as the official U.S. language. Those who expected to interact with their respective groups generated more unique counterarguments (M=1.95) than those who did not expect group interaction (M=1.26) but this difference only approached statistical significance [F

(1,51)=2.17, p=.15]. Three planned comparisons were performed on the mean number of unique counterarguments generated by each subject. The first contrasted a weighted average of cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted average of cells with unanimous and balanced groups (cells A1, B1, A3, A4, B4, and B6 in Table 1). Although the difference between these two averages approaches statistical significance [t (14)=1.52, p=.15], the pattern of results is opposite that predicted. That is, those who were exposed to unanimous or balanced groups generated more unique counterarguments (M=1.70) than those exposed to minority influence (M=1.38). The second comparison involved a weighted average of the cells with balanced groups (cells A3 and B6 in Table 1) to cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1). Those exposed to minority influence did not generate significantly more unique counterarguments (M=1.38) than those exposed to balanced groups (M=.80) [t (19)=.09, p=.93]. The third planned contrast involved a weighted average of cells where the subject was exposed to minority influence and did not expect to interact with her/his respective group (cells B2, B3, and B5) to a weighted average of all remaining cells. The difference between these two weighted average was not significant [t (14)=.03, p=.97]. Those who were exposed to minority influence and did

not expect group interaction did not generate more unique counterarguments ($\underline{M}$=1.58) than all other subjects ($\underline{M}$=1.53).

Divergent Thinking Analyses: Thoughts Regarding the Legal Marriage Between Homosexuals

It was hypothesized that individuals who were exposed to minority influence would generate more arguments and counterarguments than would individuals who were exposed to unanimous or balanced groups on a subsequent issue (allowing homosexuals to marry legally), unrelated to the issue addressed in the conversation transcript. It was also hypothesized that those who expected to interact with a group would devote more of their energy toward defending their own position than generating thoughts that ran counter to their position. It should be noted that arguments/counterarguments were reverse scored for individuals who expressed that they were against allowing homosexuals to marry legally. In other words, individuals against allowing homosexuals to marry legally would have placed thoughts in line with their opinion in the counterarguments column and the thoughts against their position in the arguments column. The mean cognitive fluency scores for each cell of the experimental design are presented in Table 25. It should be noted that the In Favor and Against columns within Table 25 refer to the subjects position on the English issue, not the homosexual issue.

Table 25

Mean Cognitive Fluency Scores and Standard Deviations for the Legal Marriage Between Homosexuals

	Condition			
Group Composition in Transcript	Subjects Expecting Group Interaction		Subjects Expecting No Group Interaction	
	In Favor	Against	In Favor	Against
5,0	6.44 2.37	***	6.21 3.21	6.71 3.54
4,1	6.28 2.30	6.67 2.06	7.39 2.35	6.50 3.87
2,3	6.75 2.11	8.00 1.41	5.72 2.13	5.60 2.41
6,0	5.14 2.65	6.50 4.80	7.27 2.96	7.00 2.94
5,1	6.56 2.50	7.67 1.21	7.58 2.72	6.67 1.15
3,3	7.60 3.34	6.50 4.95	6.54 2.62	7.38 1.60

Note. The first number in the column corresponds to the mean and the second to the standard deviation.

Subjects in favor of English as official U.S. language.

In order to test the hypothesis that influence type and expected group interaction would have an effect upon the number of arguments and counterarguments individuals would generate regarding the legal marriage between homosexuals, a 2 (expect/do not expect to join group) X 6 (group composition in transcript) analysis of variance was performed on the mean cognitive fluency scores presented in

Table 24. The analysis of variance source table is
presented in Table 26.

Table 26

Analysis of Variance Source Table for Cognitive Fluency:

The Legal Marriage Between Homosexuals

Source	Degrees of Freedom	Mean Square	F	p
Transcript	5	4.85	.72	.61
Join Group	1	7.22	1.07	.30
Transcript X Join Group	5	12.42	1.84	.10
Within Groups	170	6.76		

Contrary to expectations, there were no statistically
significant differences between individuals exposed to
minority members, unanimous or balanced groups. In
addition, there were no statistically significant
differences between the number of total thoughts listed by
individuals who expected to interact with their respective
groups and those who did not expect group interaction. Two
a priori determined comparisons were performed. The first
contrasted a weighted average of cells with minority members
(cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted
average of cells with unanimous and balanced groups (cells
A1, B1, A3, A4, B4, and B6 in Table 1). It was hypothesized
that individuals exposed to minority influence would exhibit
greater degrees of cognitive fluency than those who were

exposed to unanimous and balanced groups. The data, however, do not support this prediction [$\underline{t}$ (170)=1.18, $\underline{p}$=.23]. Those who were exposed to minority influence ($\underline{M}$=6.78) did not generate significantly more total thoughts than those exposed to unanimous or balanced groups ($\underline{M}$=6.44). The second a priori determined follow up test contrasted a weighted average of cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted average of cells with balanced groups (cells A3 and B6 in Table 1). Individuals who were exposed to minority influence ($\underline{M}$=6.78) did not generate more total thoughts than those exposed to balanced groups ($\underline{M}$=6.66) [$\underline{t}$ (170)=.36, $\underline{p}$=.71].

Subjects against English as the official U.S. language.

In order to test the hypothesis that expected group interaction would have an effect upon the total number of arguments and counterarguments individuals would generate regarding the legal marriage between homosexuals, a one-way analysis of variance with two levels (expect/do not expect group interaction) was performed on the cognitive fluency scores corresponding to those subjects who were against the issue of declaring English the official U.S. language. Those who expected to interact with their respective groups ($\underline{M}$=7.00) did not differ statistically from those who did not expect group interaction ($\underline{M}$=6.71) [$\underline{F}$ (1,51)=.15, $\underline{p}$=.70]. In addition to the analysis of variance, two planned contrasts were performed. The first contrasted a weighted average of

cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted average of cells with unanimous and balanced groups (B1, A3, A4, B4, and B6 in Table 1). Those who were exposed to minority influence ($\underline{M}$=6.65) did not generate a significantly greater number of total thoughts than those exposed to unanimous or balanced groups ($\underline{M}$=6.44) [$\underline{t}$ (42)=.58, $\underline{p}$=.56]. The second comparison contrasted a weighted average of cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted average of cells with balanced groups (cells A3 and B6 in Table 1). Individuals who were exposed to minority influence ($\underline{M}$=6.65) did not generate significantly more total thoughts than those exposed to balanced groups ($\underline{M}$=7.5) [$\underline{t}$ (42)=.82, $\underline{p}$=.41].

Analysis of Arguments and Counterarguments: The Legal

Marriage Between Homosexuals

The arguments and counterarguments regarding the legal

marriage between homosexuals generated by each subject were

also analyzed separately. Table 27 contains the mean number

of arguments and counterarguments for each cell in the

experimental design for subjects who were in favor of

declaring English as the official language of the United

States. Table 28 contains the same data for those who were

opposed to establishing English as the official U.S.

language.

Table 27

Mean Arguments and Counterarguments and Standard Deviations

for the Legal Marriage Between Homosexuals: Subjects in

Favor of English as Official U.S. Language

	Condition			
Group Composition in Transcript	Subjects Expecting Group Interaction		Subjects Expecting No Group Interaction	
	ARG	CARG	ARG	CARG
5,0	3.75	2.68	3.93	2.28
	2.64	1.77	1.49	2.09
4,1	4.64	1.64	5.72	1.67
	2.06	.93	2.34	1.08
2,3	4.69	2.06	3.72	2.00
	2.46	1.48	1.32	1.50
6,0	3.86	1.28	5.16	2.11
	2.25	.99	2.12	1.56
5,1	4.19	2.38	4.88	2.70
	2.40	1.82	2.18	1.65
3,3	5.40	2.20	4.27	2.27
	1.78	2.70	2.37	2.10

Note. The first number in the column corresponds to the mean and the second to the standard deviation. Arg=Arguments and Carg=counterarguments.

Table 28

Mean Arguments and Counterarguments and Standard Deviations

for the Legal Marriage Between Homosexuals: Subjects Against

English as Official U.S. Language

Group Composition in Transcript	Condition			
	Subjects Expecting Group Interaction		Subjects Expecting No Group Interaction	
	ARG	CARG	ARG	CARG
5,0	***	***	4.28	2.43
			3.30	2.76
4,1	5.00	1.67	4.50	2.00
	1.26	1.21	1.73	2.71
2,3	2.00	6.00	3.80	1.80
	2.82	4.24	1.30	1.30
6,0	4.17	2.33	4.50	2.50
	2.78	2.50	1.73	2.08
5,1	5.67	2.00	5.00	1.67
	1.03	2.00	1.00	.58
3,3	6.00	.50	5.50	1.88
	5.66	.71	1.20	1.13

Note. The first number in the column corresponds to the mean
and the second to the standard deviation. Arg=Arguments and
Carg=counterarguments.

Subjects in favor of English as official U.S. language.

In order to test the hypothesis that influence type and

expected group interaction would have an effect upon the

number of arguments individuals would generate regarding the

legal marriage between homosexuals, a 2 (expect/do not

expect to join group) X 6 (group composition in transcript)

analysis of variance was performed on the mean number of

arguments generated by the subjects who were in favor of English as the official language. The analysis of variance source table is presented in Table 29.

Table 29

Analysis of Variance Source Table for Arguments Generated:

The Legal Marriage Between Homosexuals

Source	Degrees of Freedom	Mean Square	F	p
Transcript	5	7.20	1.54	.18
Join Group	1	3.08	.66	.42
Transcript X Join Group	5	7.67	1.64	.15
Within Groups	170	4.66		

Contrary to predictions, the expectation of group interaction had no effect upon the number of arguments the individuals generated. Those who expected to interact with the group generated no more arguments in favor of their own position ($\underline{M}$=4.36) than those who did not expect to interact with their groups ($\underline{M}$=4.67). In addition, there was no effect for group composition within the conversation transcript. Three a priori determined contrasts were performed. The first contrasted a weighted average of cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted average of cells with unanimous and balanced groups (cells A1, B1, A3, A4, B4, and B6 in Table 1). Although individuals exposed to minority influence

generated more arguments in favor of their own position
(M=4.69) than those exposed to either unanimous or balanced
groups (M=4.31) this difference only approached statistical
significance [t (170)=1.48, p=.14]. The second planned
comparison contrasted a weighted average of the balanced
groups (cells A3 and B6 in Table 1) to a weighted average of
the cells with minority members (cells A2, B2, B3, A5, B5,
and A6). Those who were exposed to minority influence
(M=4.69) did not generate significantly more thoughts in
favor of their own position than did those exposed to
balanced groups (M=4.51) [t (170)=.58, p=.56]. Finally, the
third planned comparison contrasted a weighted average of
cells where the subject was exposed to minority influence
and expected to interact with her/his respective group
(cells A2, A5, and A6 in Table 1) to a weighted average of
all remaining cells. It was hypothesized that those who
were exposed to minority influence and expected to interact
with others would be more motivated than other subjects to
defend their own position. Contrary to expectations, those
who were exposed to minority influence and expected to
interact with others did not generate significantly more
arguments (M=4.65) than all other subjects (M=4.46) [t
(170)=.76, p=.45].

In order to test the hypothesis that influence type and
expected group interaction would have an effect upon the
number of counterarguments individuals would generate

regarding the legal marriage between homosexuals, a 2 (expect/do not expect to join group) X 6 (group composition in transcript) analysis of variance was performed on the mean number of counterarguments generated. The analysis of variance source table is presented in Table 30.

Table 30

Analysis of Variance Source Table for Counterarguments Generated: The Legal Marriage Between Homosexuals

Source	Degrees of Freedom	Mean Square	F	p
Transcript	5	4.51	1.65	.15
Join Group	1	.87	.31	.57
Transcript X Join Group	5	1.33	.49	.78
Within Groups	170	2.73		

Contrary to predictions, there was no main effect for group composition within the transcript. There was also no effect for whether or not the subject expected to interact with her/his respective group. Those who expected to interact with their group (M=2.06) did not generate significantly fewer counterarguments than those who did not expect group interaction (M=2.16). Three a priori determined contrasts were performed on the mean number of counterarguments generated by each subject. The first contrasted a weighted average of cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted

average of cells with unanimous and balanced groups (cells A1, B1, A3, A4, B4, and B6 in Table 1). Individuals exposed to unanimous and balanced groups did not generate significantly fewer counterarguments ($\underline{M}$=2.12) than those who were exposed to minority influence ($\underline{M}$=2.09) [$\underline{t}$ (72)=.07, $\underline{p}$=.94]. The second comparison involved a weighted average of the cells with balanced groups (cells A3 and B6 in Table 1) to cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1). Those who were exposed to minority influence ($\underline{M}$=2.09) did not generate a significantly greater number of counterarguments than did those who were exposed to balanced groups ($\underline{M}$=2.15) [$\underline{t}$ (26)=.17, $\underline{p}$=.87]. The third planned contrast involved a weighted average of cells where the subject was exposed to minority influence and did not expect to join her/his respective group (cells B2, B3, and B5) to a weighted average of all remaining cells. It was hypothesized that these subjects would generate the most counterarguments because they would think divergently and would not have to worry about justifying their position to other members of the group. Contrary to expectations, those who were exposed to minority influence and did not expect group interaction ($\underline{M}$=2.13) did not generate significantly more counterarguments than any other subjects ($\underline{M}$=2.09) [$\underline{t}$ (92)=.08, $\underline{p}$=.93].

Subjects against English as official U.S. language.

In order to test the hypothesis that expected group interaction would have an effect upon the number of arguments individuals would generate regarding the legal marriage between homosexuals, a one-way analysis of variance with two levels (expect/do not expect group interaction) was performed on the mean number of arguments generated by those who were against declaring English as the official language of the U.S. Contrary to expectations, there was no main effect for expected group interaction [F (1,51)=.04, p=.83]. Those who expected to interact with their respective groups did not generate significantly more thoughts in favor of their own position (M=4.77) than those who did not expect group interaction (M=4.64). Three a priori determined contrasts were performed. The first contrasted a weighted average of cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1) to a weighted average of cells with unanimous and balanced groups (cells B1, A3, A4, B4, and B6 in Table 1). Those exposed to minority influence did not generate a significantly greater number of thoughts in support of their own opinion (M=4.92) than those exposed to unanimous and balanced groups (M=4.48) [t (3)=1.00, p=.39]. The second contrast involved a weighted average of the balanced groups (cells A3 and B6 in Table 1) to a weighted average of the cells with minority members (cells A2, B2, B3, A5, B5, and A6). Those exposed to minority influence

did not generate a significantly greater number of arguments (M=4.92) than those who were exposed to balanced groups (M=4.80) [t (2)=1.00, p=.42]. The third planned comparison contrasted a weighted average of the cells where the subject was exposed to minority influence and expected to interact with her/his respective group (cells A2, A5, and A6 in Table 1) to a weighted average of all remaining cells. Contrary to expectations, those who were exposed to minority influence and expected to interact with others did not generate significantly more arguments (M=5.42) than all other subjects (M=4.43) [t (1)=.95, p=.49.

In order to test the hypothesis that expected group interaction would have an effect upon the number of counterarguments individuals would generate regarding the legal marriage between homosexuals, a one-way analysis of variance with two levels (expect/do not expect group interaction) was performed on the mean number of counterarguments generated. Contrary to expectations, there was no main effect for expected group interaction. Those who expected to join their respective groups did not generate a significantly fewer number of counterarguments (M=2.22) than those who did not expect group interaction (M=2.06) [F(1,51)=.08, p=.78]. Three planned comparisons were performed on the mean number of counterarguments generated by each subject. The first contrasted a weighted average of cells with minority members (cells A2, B2, B3,

A5, B5, and A6 in Table 1) to a weighted average of cells with unanimous and balanced groups (cells B1, A3, A4, B4, and B6 in Table 1). Individuals exposed to unanimous and balanced groups did not generate significantly fewer counterarguments (M=2.52) than those who were exposed to minority influence (M=1.73) [t (3)=1.85, p=.17]. The second comparison involved a weighted average of the cells with balanced groups (cells A3 and B6 in Table 1) to cells with minority members (cells A2, B2, B3, A5, B5, and A6 in Table 1). Those who were exposed to minority influence (M=1.73) did not generate a significantly greater number of counterarguments than did those who were exposed to balanced groups (M=2.70) [t (1)=1.51, p=.35]. Finally, the third planned contrast involved a weighted average of the cells where the subject was exposed to minority influence and did not expect to join her/his respective group (cells B2, B3, and B5) to a weighted average of all remaining cells. Contrary to expectations, those who were exposed to minority influence and did not expect group interaction (M=1.83) did not generate significantly more counterarguments than any other subjects (M=2.22) [t (6)=.86, p=.42].

CHAPTER 4

DISCUSSION

Although there is a growing body of evidence in support of the notion that minority influence leads one to think divergently (Nemeth, 1986; Smith, Tindale, & Dugoni, in press) and that minority influence is quantitatively and qualitatively different from majority influence with respect to attitude change, very little is known about the specific aspects of minority influence that bring about these differences. This study was designed to assess in a systematic manner the extent to which expected group interaction and group composition affect minority influence in terms of both attitude change and cognitive processing.

Minority Influence and Attitude Change

The two theoretical perspectives regarding minority influence discussed in the introduction of this paper each make distinct predictions regarding attitude change. Within the functionalist approach it is assumed that the principal predictor of attitude change is faction size. Minority influence relative to majority influence is much weaker; however, theoretically, growth in the minority faction should lead to an increase in the minority faction's influence. In contrast, the genetic approach highlights the

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importance of context, albeit somewhat indirectly, by making the assumption that all attitude change is not the same (e.g., compliance vs. internalization) and the amount and type of attitude change that occurs depends upon the type of influence (i.e., majority vs. minority) and the context (i.e., public vs. private) in which the attitude change is measured.

The overall pattern of mean change scores obtained in this study offers somewhat tentative empirical support for certain facets of each theoretical perspective regarding minority influence mentioned above. It is clear, especially in the case of the subjects who did not expect to interact with the individuals whose conversation transcript they read, that larger minority factions were more powerful than smaller ones. This finding is much in line with many of the mathematical models of social influence developed within the functionalist approach (e.g., Latané, 1984; Tanford & Penrod, 1984).

The consistent differences with respect to attitude change found between those who expected and those who did not expect group interaction within the sample of subjects who were in favor of establishing English as the official U.S. language support the notion that minority influence is more powerful in private than public contexts. Although all subjects in favor of the issue who did not expect group interaction shifted their attitudes toward the minority

position, the relative differences found between conditions with and without minority members offers strong support for the argument that minority influence is quite robust in private contexts.

One would draw the opposite conclusion, however, upon observing the pattern of means corresponding to attitude change for those who opposed establishing English as the official language of the U.S. Although the differences between those who expected and those who did not expect group interaction only approached statistical significance, the means suggest that minority members were less influential in private as opposed to public contexts. This difference might be attributable to the fact that the subjects did not perceive those arguing in favor of establishing English as the United States' official language as genuine minority members, but rather felt like minority members themselves (which outside the context of this experiment, they genuinely were) who were facing majority influence. More will be mentioned about this distinction later.

Expected Interaction and Cognitive Activity

The results of the present study fail to offer straightforward support for the view that divergent thinking is the result of minority influence per se. The results do, however, point out the importance of expected and presumably actual group interaction with respect to cognitive activity,

at least for those subjects who were exposed to minorities who were opposed to establishing English as the official language of the United States. Results consistent with the notion that expected interaction alters the manner in which individuals think about issues were found in the present study in that those who expected to discuss establishing English as the official language of the U.S. directed more of their energy toward defending their position than did those who did not expect to interact with others. In addition, marginally significant differences in the predicted direction were found between those who expected and those who did not expect group interaction with respect to the number of counterarguments generated. Previous studies supporting the notion that minority and majority influence differ qualitatively (e.g., Maass & Clark, 1984; Nemeth & Kwan, 1984; Nemeth & Wachtler, 1983), have failed to consider this important difference, perhaps largely because the designs of the studies did not allow for expected or actual group interaction. The results of the present study failed to support the prediction that those exposed to minority influence are especially affected by the expectation of group interaction. That is, those who were exposed to minority influence and expected group interaction did not generate significantly more arguments in favor of their own position than other subjects.

Minority Influence and Position on Social Issue

To date, there has been little attention paid to the possibility that minority members might be differentially influential depending upon the position they advocate. Some theorists have argued that there are important differences between local minorities (those who are in the minority within their respective group but whose opinion is shared by the majority within a larger population) versus those who genuinely hold minority opinions (Clark, 1992). In the current study several important differences between those who were in favor of and those who opposed establishing English as the official language of the United States were found. Although the design of the study does not allow for an unequivocal interpretation of the differences, a possible explanation might involve the notion that those who were in favor of and those who were opposed to the issue may have been exposed to two different types of minority influence. That is, the individuals who were against the issue may well have understood that they actually held a minority opinion despite the fact that their opinion was expressed by the majority of individuals in the conversation transcript. Similarly, 15% of the undergraduate sample drawn by Smith et al. (in press) was opposed to establishing English as the official language of the United States. Therefore, those who favored the issue were exposed to genuine minority

members whereas those who opposed it were exposed to local minority members.

It may also be that those who, at the outset, believed that English should be established as the United States' official language had thought less about the issue and were less knowledgeable about the topic than those who endorsed the opposite position and were, therefore, more easily persuaded by the minority influence source. It may be that once the subject realized what her/his position entailed through exposure to additional information regarding the issue that she/he decided her/his position was too extreme or perhaps insensitive to human differences. The pattern of mean change scores for those who were in favor and against the issue certainly support this possibility. That is, there is a consistent shift in all subjects, regardless of influence type, toward opposing establishing English as the official language. Furthermore, individuals were significantly more likely to change their position from in favor to against than from against to in favor of establishing English as the official language (in fact not a single subject did the latter).

Within the present study, only the subjects exposed to the unanimous 5-person groups who expected group interaction became more extreme in their opinions. Those who were in favor of the issue who were exposed to unanimous groups and expected no interaction shifted much more toward the

minority position than similar subjects who expected to interact with their respective groups.

As mentioned above, establishing an official language may have initial appeal, but upon reflection most subjects shifted away from this position. The pattern of mean change scores suggest that those who advocated passing the law, with very few exceptions, were impotent sources of social influence, regardless of status (i.e., minority vs. majority). In direct contrast, the Smith et al. (in press) study revealed that members of unanimous groups in favor of establishing English as the official language of the United States became more extreme in their post-discussion attitudes regarding the issue. All of their data suggest that advocates for establishing the law were very powerful sources of social influence. Members of unanimous groups may have valued group solidarity more than thinking critically about their own positions on the issue therefore reducing the likelihood that shifts toward the opposite position would occur.

Perhaps those exposed to unanimous groups which they would soon join in the present study also felt a strong sense of group solidarity and were therefore less reflective and critical of their chosen position. It may be that those who did not expect group interaction shifted toward the minority position because they felt no sense of group solidarity and were free to reflect upon their position.

A crucial difference between the Smith et al. study and the present investigation is that the former utilized freely interacting groups whereas individuals in the present study read arguments from a prepared transcript. In addition to being influenced by the arguments put forth by their fellow group members, the subjects in the Smith et al. investigation had the opportunity to act as influencing agents themselves. In addition, they could correct or counterargue any statement made during the group discussion if they disagreed with it. Although the subjects who expected to join the group whose transcript they read in the present study never actually interacted with anyone, they believed throughout the experimental session that they would soon be given the opportunity to discuss establishing English as the official language with the individuals in the transcript. In direct contrast, those who did not expect group interaction were aware of the fact that they would not have an opportunity to challenge statements made by the group members. If any statement in the transcript seemed debateable to the subjects who did not expect group interaction they could only respond to it by changing their opinion in a direction opposite that of the attitudes ostensibly held by the group members in the conversation transcript. Those who expected to interact with the group whose conversation transcript they read may have reacted less strongly to debateable statement because they wanted to

first meet the group members and perhaps request that they clarify their positions.

Minority Influence and Cognitive Activity

In the Smith et al study there were differences found between the discussed and non-discussed issues with respect to cognitive activity. More specifically, those who were exposed to minority influence appeared to direct their attention to the generation of arguments in favor of their own position for the English issue and to the generation of counterarguments for the issue of homosexuals marrying legally. There are at least two feasible explanations for the difference between the two issues. The first interpretation attributes the differences found to the fact that the issues are qualitatively different. For example, Smith (unpublished manuscript) noted that the thoughts generated for the issue of establishing English as the official language of the United States seemed to be based more on facts and on the hypothetical implications of establishing such a law, whereas the thoughts generated for the issue of allowing homosexuals to marry legally seemed to be more subjective and affect laden (e.g., being sickened by the thought of homosexuals, considering homosexuals not worthy of their civil rights). She argued that it may be more difficult for individuals to generate arguments against their own position when the issue lends itself to the generation of facts rather than feelings. That is, one

would have to have adequate knowledge of or be quite familiar with the implications of establishing English as the official language of the United States in order to generate a list of arguments and counterarguments regarding the issue. The second, and more theoretically exciting interpretation attributes the differences found to the fact that the groups interacted and discussed the issue of establishing English as the official language of the United States and they did not discuss the issue of allowing homosexuals to marry legally. Smith et al. (in press) argued that the need to defend one's position may alter the divergent thought processes produced by minority influence. The design of the Smith et al. study did not allow for an unequivocal interpretation of the differences found between the two issues.

In the present study, all subjects who expected to interact with the group whose transcript they read expected to discuss the issue of legalizing the marriage between homosexuals after they discussed declaring English as the official language of the U.S. If the pattern of results for the first and second issue had been the same, one could argue that the first interpretation put forth by Smith (unpublished manuscript) is far less feasible than the second. However, the failure to find significant differences between any of the experimental groups for the issue of legalizing the marriage between homosexuals in the

present study does not offer definitive support for Smith's (unpublished manuscript) first interpretation. In the Smith et al. study, the divergent thought styles brought about by exposure to minority influence during group discussion generalized to the second issue, although in a somewhat different form. The present study failed to replicate this finding. It is difficult to attribute the failure to find evidence of divergent thinking for the second issue to any single factor. Perhaps the fact that the subjects were told that the group they were about to join had not yet discussed the issue of homosexuals marrying made a difference in how the subjects thought about the issue. It may have been that the impending conversation with others regarding the issue of legalizing the marriage between homosexuals was not made salient enough to the subjects. The most theoretically meaningful interpretation, however, involves the fact that the subjects in the Smith et al. actively engaged in a conversation regarding the first issue. It is not unreasonable to assume that engaging in an actual conversation with others is an entirely different psychological experience than simply reading a conversation transcript. It may well be that reciprocal social influence is a necessary antecedent in the minority influence divergent thinking relationship, especially with respect to cognitive fluency regarding attitude issues. That is, minority influence has been shown to evoke divergent

thinking on judgment and problem solving tasks in the absence of interaction, but these tasks are perhaps less ego-involving and affect laden than the ones used in the present study. Provisional support for this argument can be found in a study conducted by Maass and Clark (1983) where subjects simply read a conversation transcript regarding a social issue (Gay rights) that contained arguments put forth by both majority and minority factions. They found no differences in the total number of thoughts (arguments, neutral statements, and counterarguments) subjects generated in response to minority and majority influence.

It is unclear why those who were exposed to unanimous and balanced groups thought more divergently than individuals exposed to minority influence, especially with respect to the generation of unique thoughts regarding establishing English as the official language of the United States. The pattern of results is in direct opposition to that found by Smith et al. (in press). Once again, there is a critical methodological difference between the present study and that conducted by Smith et al. in that the individuals in the latter interacted with one another. It is difficult to imagine, however, how the lack of interaction could bring about the antithetical results found in the present study. For example, the results of several studies, all of which utilized no or very minimal interaction between the source of influence and the

experimental subjects, suggest that minority influence inspires individuals to think divergently and that majority influence forces individuals to think convergently (Nemeth & Kwan, 1985; Nemeth & Wachtler, 1983). In addition, the argument that the lack of reciprocal social influence in the present study is the cause for majority members thinking more divergently than minority members is somewhat less compelling when one considers the fact that the differences between the subjects who expected and those who did not expect group interaction does not even hint of this reversal.

APPENDIX 1

INSTRUCTIONS READ TO SUBJECTS

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INSTRUCTIONS READ TO SUBJECTS

Instructions for Majority/Minority Study
For Expect to Join Groups

Welcome to today's experiment. My name is _____
and this study is part of a research project concerning
various aspects of human behavior. I would like to thank
everyone for coming today, and I would appreciate your
serious participation and cooperation during the course of
this experiment.

The purpose of this study is to assess how people think
about issues as individuals and as members of discussion
groups. We are also interested in how group discussions are
affected by new members.   During the experiment, you will
be asked to work individually on a number of tasks related
to two different issues and you will also be asked to
participate in a group discussion.   The groups you will
join have already met once and are currently in another part
of the psychology laboratory discussing another issue. Each
of you will be taken to another room to join one of these
groups after you complete a few tasks in this room.

Now that you know the general procedures of this experiment,
I would like to inform you of our policy, and that of the
psychology department. If at any point in time you feel
unable or unwilling to continue participation in this study,
you may leave after making arrangements with me to be
excused from the experiment. I want to assure you that this
experiment is in no way harmful, distasteful, or
embarrassing. However, anyone wishing to leave may do so at
any time after informing me so I can make the proper
arrangements.

Are there any questions?
Before we begin, I would like you to read and sign this
informed consent sheet. Please read the statement on the
sheet then print and sign your name in the appropriate
places. In addition, since these sheets will be used to
assign you credit for your participation, make sure to
include today's date and the name of your psychology
instructor.

First I would like you to answer the two questions that
appear on this sheet. Before you begin reading place your
seat number in the space provided on the top right hand side
of your sheet. Please read each question carefully and
respond to each one honestly. If you have any questions

regarding how you should record each of your responses, please ask.

What I am giving you right now is an edited conversation transcript from a group discussion held last week by several introductory psychology students. This is the group you will join in another room later during the experiment. You will continue discussing with them the issue of establishing English as the official language of the United States. Each of you will join different groups, so please make sure that I give you the group transcript that corresponds to your seat number. Please read the first page and the conversation transcript carefully. I will give you about 5 minutes to read through the transcript.

Now I would like you to once again respond to the questions on this sheet. I am not at all concerned with whether or not you are consistent with your previous responses, but only in your current opinion. Once again, do not forget to place your seat number in the upper right hand corner. **Collect the sheets.**

Now I would like you to list all of your thoughts about establishing English as the official language of the United States. You will notice that the sheet you have been given is divided into two columns labeled arguments and counterarguments. Place all of your thoughts in favor of establishing English as the official language of the United States in the arguments column. Place all of your thoughts against English as the official language of the U.S. in the counterarguments column. Please do not feel as if you need to fill in an equal number of spaces on each side. You also **do not need** to limit yourself to only those arguments brought up in the conversation transcript of the group you are about to join. It is very important, though, that you list everything that comes to your mind. Please list each thought on a separate line and do not forget to put your seat number in the upper right hand corner. You will have approximately ten minutes to complete this task. When you are finished, turn your sheet over and sit quietly until the other individuals in the room have completed listing their thoughts.
Collect the sheets.
Now I would like you to respond to the two questions on this sheet. You will be discussing this issue with the group too. The group you are about to join has yet to discuss this issue, but will once you join them. Please do not forget to place your seat number in the upper right hand corner.

Now I would like you to list your thoughts regarding the legal marriage between homosexuals. As before, place all of your thoughts in favor of the legal marriage between

homosexuals in the arguments column and all of your thoughts
against the legal marriage between homosexuals in the
counterarguments column. Please do not feel as if you need
to fill in an equal number of spaces on each side. It is
very important, though, that you list every thought that
comes to mind. You will have approximately ten minutes to
complete this task. Please do not forget to put your seat
number in the upper right hand corner. When you have
finished, please turn your sheet over and sit quietly until
the rest of the individuals in the room have completed this
task.

Collect the sheets.

You have now completed this experiment. Even though I said
you would join a discussion group, you actually will not.
The reason that I told you this is that past research has
shown that individuals think differently about issues when
they feel that they will have to interact with others and
defend their position. Although we don't like to mislead
you, it was necessary in order to fully understand the
differences between individuals who expect to interact with
others and those who do not. In addition, the conversation
transcripts you read differed in terms of how many people
were in favor and how many people were against establishing
English as the official language of the United States. Once
again, past research has shown that this also has an impact
upon how people think about issues. The transcript that you
read actually was based upon conversations held by
introductory psychology students discussing this issue. I
really appreciate your participation and once again would
like to apologize for misleading you. The sheet I am giving
you now has some more information about the study.

Instructions for Majority/Minority Study
For Don't Expect to Join Groups

Welcome to today's experiment. My name is _____ and
this study is part of a research project concerning various
aspects of human behavior. I would like to thank everyone
for coming today, and I would appreciate your serious
participation and cooperation during the course of this
experiment.

The purpose of this study is to assess various aspects of
people's position on a couple of different issues. During
the experiment, you will be asked to work individually on a
number of tasks related to two different issues.

Now that you know the general procedures of this experiment,
I would like to inform you of our policy, and that of the
psychology department. If at any point in time you feel
unable or unwilling to continue participation in this study,
you may leave after making arrangements with me to be
excused from the experiment. I want to assure you that this
experiment is in no way harmful, distasteful, or
embarrassing. However, anyone wishing to leave may do so at
any time after informing me so I can make the proper
arrangements.

Before we begin, I would like you to read and sign this
informed consent sheet. Please read the statement on the
sheet, then print and sign your name in the appropriate
places. In addition, since these sheets will be used to
assign you credit for your participation, make sure to
include today's date and the name of your psychology
instructor.

First I would like you to answer the two questions that
appear on this sheet. Before you begin reading, place your
seat number in the space provided on the top right hand side
of your sheet. Please read each question carefully and
respond to each one honestly. If you have any questions
regarding how you should record each of your responses,
please ask.

What I am giving you right now is an edited conversation
transcript from a group discussion held last semester by
several introductory psychology students. They were
discussing whether or not the United States government
should legally declare English as the official language of
the United States. Please read the cover sheet and the
transcript carefully. I will give you about 5 minutes to
read through the transcript.

Now I would like you to once again respond to the questions
on this sheet. I am not at all concerned with whether or
not you are consistent with your previous responses, but
only in your current opinion. Once again, do not forget to
place your seat number in the upper right hand corner.

Now I would like you to list all of your thoughts about
establishing English as the official language of the United
States. You will notice that the sheet you have been given
is divided into two columns labeled arguments and
counterarguments. Place all of your thoughts in favor of
establishing English as the official language of the United
States in the arguments column. Place all of your thoughts
against English as the official language of the United
States in the counterarguments column. Please do not feel
as if you need to fill in an equal number of spaces on each
side. You also do not need to limit yourself to only those
arguments brought up in the conversation transcript you have
just read. It is very important though, that you list
everything that comes to your mind. Please list each
thought on a separate line and do not forget to put your
seat number in the upper right hand corner. You will have
approximately ten minutes to complete this task. When you
are finished, turn your sheet over and sit quietly until the
other individuals in the room have completed listing their
thoughts.

Now I would like you to respond to the two questions on this
sheet. Please don't forget to place your seat number in the
upper right hand corner.

Now I would like you to list your thoughts regarding the
legal marriage between homosexuals. As before, place all of
your thoughts in favor of the legal marriage between
homosexuals in the arguments column and all of your thoughts
against the legal marriage between homosexuals in the
counterarguments column. Please don't feel as if you need
to fill in an equal number of spaces on each side. It is
very important, though, that you list every thought that
comes to mind. You will have approximately 10 minutes to
complete this task. Please don't forget to place your seat
number in the upper right hand corner. When you have
finished, please turn your sheet over and sit quietly until
the rest of the individuals in the room have completed this
task.

That is the end of the experiment. The sheet I am giving
you contains more information about the experiment. Please
read it and if anyone has any questions, feel free to ask
me.

APPENDIX 2

ENGLISH ATTITUDE SCALE

APPENDIX 2

ENGLISH ATTITUDE SCALE

Please answer the following two questions.

1. I am   **IN FAVOR** _____   **AGAINST** _____

               Our government passing a law that would
               make English the official language of
               the United States.

2. Please circle the number below that best represents your
opinion, <u>at this time</u> concerning our government passing a
law that would make English the official language of the
United States.

+50 +45 +40 +35 +30 +25 +20 +15 +10 +05 00 -05-10-15-20-25-30-35-40-45-50

Extremely   Quite   Somewhat   Somewhat   Quite   Extremely
              In Favor   Against

APPENDIX 3

CONVERSATION TRANSCRIPTS

APPENDIX 3

CONVERSATION TRANSCRIPTS

Conditions A1 and B1
Subjects Who Favored the Issue

The following transcript is based on a conversation held by
5 Introductory psychology students here at Grand Valley
State University. These students were discussing whether or
not our government should pass a law that would make English
the official language of the United States. Comments
irrelevant to the discussion topic have been removed. The
group members' positions on the issue are as follows:

        Person 1: In favor of passing the law
        Person 2: In favor of passing the law
        Person 3: In favor of passing the law
        Person 4: In favor of passing the law
        Person 5: In favor of passing the law

Please read the conversation transcript very carefully.

Group Conversation Transcript

Person 1: Well, I am in favor of passing a law because a lot of people come to the United States without knowing how to speak English and I think that that is wrong. They should learn the language before they come here.

Person 2: I agree, although this law might take a lot of money to pass, it would save money in the long run. We wouldn't have to print things in a bunch of different languages. I think it would be a good thing for our government to spend its time on.

Person 3: I agree too. Our country was founded by many different nationalities and we cannot possibly accommodate all of them. It would be good to just have one single language that we could all use to communicate.

Person 4: Yeah, that is one of the problems with us being a melting pot. We are a bunch of diverse cultures but we should try to have at least some common ground through language.

Person 5: The law could be easily enforced. You could just check and see if people spoke the language before they entered the country. It would cut down on a lot of immigrants coming to the country who don't want to give their all to the United States.

Person 2: You are right. It seems like having an official language would be similar to having one flag for the country or having an official state bird. It would give unity to us as a country.

Person 4: It would make everyone feel more like Americans.

Person 1: And people who had been here for a long time could learn the language by going to school. The government could provide free English lessons for older people or young children who haven't learned the language.

Person 5: Most people who speak only a little English don't even know enough just to get by. They cannot survive in an all English world and they tend to isolate themselves. That is not good.

Person 3: People could still speak their native language in their homes. Then their children could know the language of their relatives. It is just important that they speak English in public so people can understand what they are saying.

Person 5: Our country is really divided because of the language problem. I think that it would work better if everyone spoke same language. We should really change things soon.

Person 3: I think that sometimes people who don't speak English get taken advantage of in our country. If they spoke the language everyone else speaks, they wouldn't enter into bad business deals and they would always know what was going on during business and daily transactions.

Person 5: Yes, it would reduce the amount of discrimination in our society. Everyone would be equal in language. That is important.

Person 1: And they wouldn't have to worry about finding things printed in their own language or shopping at stores that only had products printed in their language. It would be hard to find a Greek or Spanish Bible in this country. If they spoke English, they could buy an English one.

Person 3: People wouldn't need to have translators and they would always know what was going on. It shouldn't be a matter of personal choice, they should just learn the language in order to live here.

Conditions A1 and B1
Subjects Who Opposed the Issue

The following transcript is based on a conversation held by 5 Introductory psychology students here at Grand Valley State University. These students were discussing whether or not our government should pass a law that would make English the official language of the United States. Comments irrelevant to the discussion topic have been removed. The group members' positions on the issue are as follows:

Person 1: Against passing the law
Person 2: Against passing the law
Person 3: Against passing the law
Person 4: Against passing the law
Person 5: Against passing the law

Please read the conversation transcript very carefully.

Group Conversation Transcript

Person 1: Well, I am against passing a law because the people who come to the United States who don't know how to speak English usually have a lot to deal with, you know, just everyday survival things. I think it would be horrible to make them feel like, on top of everything else, they had to learn English right away too.

Person 2: I agree, I also think that it would be a pointless waste of the governments time. They have more important problems to deal with and this law would involve spending a lot of money on something that probably wouldn't change much.

Person 3: I think that we shouldn't pass a law either, I think this country was founded by many nationalities and we should show our respect for this fact by keeping all of the different languages alive in the United States.

Person 4: And all of these diverse cultures make the United States what it is today, a melting pot. If you require people to speak English, people might start giving up their culture too.

Person 5: It would be a horrible law to enforce, it might require that we give people competency exams before people entered the U.S. This would be unfair to a lot of people and I disagree totally with passing a law that could result in this.

Person 2: You are right, it seems like having an official language would be similar to having an official religion and no one has a problem seeing how that would be wrong.

Person 4: Yes, it would force people to so something that they might not want to do. Next, we might insist that all immigrants wear American clothing and behave like Americans.

Person 1: It would also be very unfair to old people who have lived here for a long time and not learned English. We cannot expect them to learn to speak English now, they are too old. They must be doing fine as they are anyway.

Person 5: Most people, just out of daily necessity learn enough to get by and that should be enough English. No one should be forced to learn more than they want to or can.

Person 3: And another problem would involve forcing people to speak English and then they probably wouldn't teach their children how to speak their native language, and after several generations the family's native language would be

lost. I think that it happens a lot already and it is very sad. Everyone wants to be so American.

Person 5: I guess I don't really see the point, our country has worked okay without such a law, why change things?

Person 3: Yes, I don't see how we would get any benefits from such a law, it would just lead to discrimination.

Person 5: It would increase the level of discrimination that is already present in our society.

Person 1: You know, anything that the person needs to read is probably available in other languages too. There is, for example, a Spanish and Greek version of the bible.

Person 3: And people can use a translator if they don't understand what is going on. It is just a matter of personal choice.

Conditions A2 and B2
Subjects Who Favored the Issue

The following transcript is based on a conversation held by 5 Introductory psychology students here at Grand Valley State University. These students were discussing whether or not our government should pass a law that would make English the official language of the United States. Comments irrelevant to the discussion topic have been removed. The group members' positions on the issue are as follows:

Person 1: In favor of passing the law
Person 2: In favor of passing the law
Person 3: Against passing the law
Person 4: In favor of passing the law
Person 5: In favor of passing the law

Please read the conversation transcript very carefully.

Group Conversation Transcript

Person 1: Well, I am in favor of passing a law because a lot of people come to the United States without knowing how to speak English and I think that that is wrong. They should learn the language before they come here.

Person 2: I agree, although this law might take a lot of money to pass, it would save money in the long run. We wouldn't have to print things in a bunch of different languages. I think it would be a good thing for our government to spend its time on.

Person 3: I think that we shouldn't pass a law. I think that this country was founded by many nationalities and we should show our respect for this fact by keeping all of the different languages alive in the United States.

Person 4: I disagree although that is one of the problems with us being a melting pot. We are a bunch of diverse cultures but we should try to have at least some common ground through language.

Person 5: The law could be easily enforced. You could just check and see if people spoke the language before they entered the country. It would cut down on a lot of immigrants coming to the country who don't want to give their all to the United States.

Person 2: You are right. It seems like having an official language would be similar to having one flag for the country or having an official state bird. It would give unity to us as a country.

Person 4: It would make everyone feel more like Americans.

Person 1: And people who had been here for a long time could learn the language by going to school. The government could provide free English lessons for older people or young children who haven't learned the language.

Person 5: Most people who speak only a little English don't even know enough just to get by. They cannot survive in an all English world and they tend to isolate themselves. That is not good.

Person 3: It is a problem to force people to speak English and then they probably wouldn't teach their children how to speak their native language, and after several generations the family's native language would be lost. I think that it happens a lot already and it is very sad. Everyone wants to be so American.

Person 5: Our country is really divided because of the language problem. I think it would work better if everyone spoke the same language. We should really change things soon.

Person 3: I don't see how we would get any benefits from such a law, it would just lead to discrimination.

Person 5: No it wouldn't, it would reduce the amount of discrimination in our society. Everyone would be equal in language. That is important.

Person 1: And they wouldn't have to worry about finding things printed in their own language or shopping at stores that only had products printed in their language. It would be hard to find a Greek or Spanish Bible in this country. If they spoke English they could buy
 and English one.

Person 3: But people can use a translator if they don't understand what is going on. I think that speaking English is a matter of personal choice.

Conditions A2 and B2
Subjects Who Opposed the Issue

The following transcript is based on a conversation held by 5 Introductory psychology students here at Grand Valley State University. These students were discussing whether or not our government should pass a law that would make English the official language of the United States. Comments irrelevant to the discussion topic have been removed. The group members' positions on the issue are as follows:

Person 1: Against passing the law
Person 2: Against passing the law
Person 3: In favor of passing the law
Person 4: Against passing the law
Person 5: Against passing the law

Please read the conversation transcript very carefully.

Group Conversation Transcript

Person 1: Well, I am against passing a law because the people who come to the United States who don't know how to speak English usually have a lot to deal with, you know, just everyday survival things. I think it would be horrible to make them feel like, on top of everything else, they had to learn English right away too.

Person 2: I agree, I also think that it would be a pointless waste of the governments time. They have more important problems to deal with and this law would involve spending a lot of money on something that probably wouldn't change much.

Person 3: I disagree. Our country was founded by many different nationalities and we cannot possibly accommodate all of them. It would be good to just have one single language that we could all use to communicate.

Person 4: But all of these diverse cultures make the United States what it is today, a melting pot. If you require people to speak English, people might start giving up their culture too.

Person 5: It would be a horrible law to enforce, it might require that we give people competency exams before people entered the U.S. This would be unfair to a lot of people and I disagree totally with passing a law that could result in this.

Person 2: You are right, it seems like having an official language would be similar to having an official religion and no one has a problem seeing how that would be wrong.

Person 4: Yes, it would force people to do something that they might not want to do. Next we might insist that all immigrants wear American clothing and behave like Americans.

Person 1: It would also be very unfair to old people who have lived here for a long time and not learned English. We cannot expect them to learn to speak English now, they are too old. They must be doing fine as they are anyway.

Person 5: Most people, just out of daily necessity learn enough to get by and that should be enough English. No one should be forced to learn more than they want to or can.

Person 3: People could still speak their native language in their homes. Then their children could know the language of their relatives. It is just important that they speak

English in public so people can understand what they are saying.

Person 5: I guess I don't really see the point, our country has worked okay without such a law, why change things?

Person 3: I think that sometimes people who don't speak English get taken advantage of in our country. If they spoke the language everyone else speaks, the wouldn't enter into bad business deals and they would always know what was going on during business and daily transactions.

Person 5: But it would increase the level of discrimination that is already present in our society.

Person 1: You know, anything that the person needs to read is probably available in other languages too. There is, for example, a Spanish and Greek version of the Bible.

Person 3: People wouldn't need to have translators and they would always know what was going on. It shouldn't be a matter of personal choice, they should just learn the language in order to live here.

Conditions A3 and B3
Subjects Who Favored the Issue: Expect to Join
Subjects Who Opposed the Issue: Don't Expect to Join

The following transcript is based on a conversation held by
5 Introductory psychology students here at Grand Valley
State University. These students were discussing whether or
not our government should pass a law that would make English
the official language of the United States. Comments
irrelevant to the discussion topic have been removed. The
group members' positions on the issue are as follows:

> Person 1: Against passing the law
> Person 2: Against passing the law
> Person 3: In favor of passing the law
> Person 4: Against passing the law
> Person 5: In favor of passing the law

Please read the conversation transcript very carefully.

Group Conversation Transcript

Person 1: Well, I am against passing a law because the people who come to the United States who don't know how to speak English usually have a lot to deal with, you know, just everyday survival things. I think it would be horrible to make them feel like, on top of everything else, they had to learn English right away too.

Person 2: I agree, I also think that it would be a pointless waste of the governments time. They have more important problems to deal with and this law would involve spending a lot of money on something that probably wouldn't change much.

Person 3: I disagree. Our country was founded by many different nationalities and we cannot possibly accommodate all of them. It would be good to just have one single language that we could all use to communicate.

Person 4: But all of these diverse cultures make the United States what it is today, a melting pot. If you require people to speak English, people might start giving up their culture too.

Person 5: The law could be easily enforced. You could just check and see if people spoke the language before they entered the country. It would cut down on a lot of immigrants coming to the country who don't want to give their all to the United States.

Person 2: I don't know, it seems like having an official language would be similar to having an official religion and no one has a problem seeing how that would be wrong.

Person 4: Yes, it would force people to do something that they might not want to do. Next, we might insist that all immigrants wear American clothing and behave like Americans.

Person 1: It would also be very unfair to old people who have lived here for a long time and not learned English. We cannot expect them to learn to speak English now, they are too old. They must be doing fine as they are anyway.

Person 5: Most people who speak only a little English don't even know enough to get by. They cannot survive in an all English world and they tend to isolate themselves. That is not good.

Person 3: People could still speak their native language in their homes. Then their children could know the language of their relatives. It is just important that they speak

English in public so people can understand what they are saying.

Person 5: Our country is really divided because of the language problem. I think that it would work better if everyone spoke the same language. We should really change things soon.

Person 3: I think that sometimes people who don't speak English get taken advantage of in our country. If they spoke the language everyone else speaks, they wouldn't enter into bad business deals and they would always know what was going on during business and daily transactions.

Person 5: Yes, it would reduce the amount of discrimination in our society. Everyone would be equal in language. That is important.

Person 1: You know, anything the person needs to read is probably available in other languages too. There is, for example, a Spanish and Greek version of the Bible.

Person 3: People wouldn't need to have translators and they would always know what was going on. It shouldn't be a matter of personal choice, they should just learn the language in order to live here.

Conditions A3 and B3
Subjects Who Favored the Issue: Don't Expect to Join
Subjects Who Opposed the Issue: Expect to Join

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Person 1: In favor of passing the law
Person 2: In favor of passing the law
Person 3: Against passing the law
Person 4: In favor of passing the law
Person 5: Against passing the law

Please read the conversation transcript very carefully.

Group Conversation Transcript

Person 1: Well, I am in favor of passing a law because a lot of people come to the United States without knowing how to speak English and I think that that is wrong. They should learn the language before they come here.

Person 2: I agree, although this law might take a lot of money to pass, it would save money in the long run. We wouldn't have to print things in a bunch of different languages. I think it would be a good thing for our government to spend its time on.

Person 3: I think that we shouldn't pass a law. I think that this country was founded by many nationalities and we should show our respect for this fact by keeping all of the different languages alive in the United States.

Person 4: I disagree although that is one of the problems with us being a melting pot. We are a bunch of diverse cultures but we should try to have at least some common ground through language.

Person 5: It would be a horrible law to enforce, it might require that we give people competency exams before people entered the U.S. This would be unfair to a lot of people and I disagree totally with passing a law that could result in this.

Person 2: I don't know. It seems like having an official language would be similar to having one flag for the country or having an official state bird. It would give unity to us as a country.

Person 4: It would make us feel more like Americans.

Person 1: And people who had been here for a long time could learn the language by going to school. The government could provide free English lessons for older people or young children who haven't learned the language.

Person 5: Most people, just out of daily necessity learn enough to get by and that should be enough English. No one should be forced to learn more than they want to or can.

Person 3: It is a problem to force people to speak English and then they probably wouldn't teach their children how to speak their native language, and after several generations the family's native language would be lost. I think that it happens a lot already and it is very sad. Everyone wants to be so American.

Person 5: I guess I don't really see the point, our country has worked okay without such a law, why change things?

Person 3: I don't see how we would get any benefits from such a law, it would just lead to discrimination.

Person 5: Yes, it would increase the level of discrimination that is already present in our society.

Person 1: But they wouldn't have to worry about finding things printed in their own language or shopping at stores that only had products printed in their language. It would be hard to find a Greek or Spanish Bible in this country. If they spoke English, they could buy an English one.

Person 3: But people can use a translator if they don't understand what is going on. I think that speaking English is a matter of personal choice.

Conditions A4 and B4
Subjects Who Favored the Issue

The following transcript is based on a conversation held by
6 Introductory psychology students here at Grand Valley
State University. These students were discussing whether or
not our government should pass a law that would make English
the official language of the United States. Comments
irrelevant to the discussion topic have been removed. The
group members' positions on the issue are as follows:

                    Person 1: In favor of passing the law
                    Person 2: In favor of passing the law
                    Person 3: In favor of passing the law
                    Person 4: In favor of passing the law
                    Person 5: In favor of passing the law
                    Person 6: In favor of passing the law

Please read the conversation transcript very carefully.

Group Conversation Transcript

Person 1: Well, I am in favor of passing a law because a lot of people come to the United States without knowing how to speak English and I think that that is wrong. They should learn the language before they come here.

Person 2: I agree, although this law might take a lot of money to pass, it would save money in the long run. We wouldn't have to print things in a bunch of different languages. I think it would be a good thing for our government to spend its time on.

Person 3: I agree too. Our country was founded by many different nationalities and we cannot possibly accommodate all of them. It would be good to just have one single language that we could all use to communicate.

Person 4: Yeah, that is one of the problems with us being a melting pot. We are a bunch of diverse cultures but we should try to have at least some common ground through language.

Person 5: The law could be easily enforced. You could just check and see if people spoke the language before they entered the country. It would cut down on a lot of immigrants coming to the country who don't want to give their all to the United States.

Person 6: You are right. It seems like having an official language would be similar to having one flag for the country or having an official state bird. It would give unity to us as a country.

Person 4: It would make everyone feel more like Americans.

Person 1: And people who had been here for a long time could learn the language by going to school. The government could provide free English lessons for older people or young children who haven't learned the language.

Person 5: Most people who speak only a little English don't even know enough just to get by. They cannot survive in an all English world and they tend to isolate themselves. That is not good.

Person 3: People could still speak their native language in their homes. Then their children could know the language of their relatives. It is just important that they speak English in public so people can understand what they are saying.

Person 5: Our country is really divided because of the language problem. I think that it would work better if everyone spoke same language. We should really change things soon.

Person 3: I think that sometimes people who don't speak English get taken advantage of in our country. If they spoke the language everyone else speaks, they wouldn't enter into bad business deals and they would always know what was going on during business and daily transactions.

Person 5: Yes, it would reduce the amount of discrimination in our society. Everyone would be equal in language. That is important.

Person 1: And they wouldn't have to worry about finding things printed in their own language or shopping at stores that only had products printed in their language. It would be hard to find a Greek or Spanish Bible in this country. If they spoke English, they could buy an English one.

Person 3: People wouldn't need to have translators and they would always know what was going on. It shouldn't be a matter of personal choice, they should just learn the language in order to live here.

Conditions A4 and B4
Subjects Who Opposed the Issue

The following transcript is based on a conversation held by
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State University. These students were discussing whether or
not our government should pass a law that would make English
the official language of the United States. Comments
irrelevant to the discussion topic have been removed. The
group members' positions on the issue are as follows:

                    Person 1: Against passing the law
                    Person 2: Against passing the law
                    Person 3: Against passing the law
                    Person 4: Against passing the law
                    Person 5: Against passing the law
                    Person 6: Against passing the law

Please read the conversation transcript very carefully.

Group Conversation Transcript

Person 1: Well, I am against passing a law because the people who come to the United States who don't know how to speak English usually have a lot to deal with, you know, just everyday survival things. I think it would be horrible to make them feel like, on top of everything else, they had to learn English right away too.

Person 2: I agree, I also think that it would be a pointless waste of the governments time. They have more important problems to deal with and this law would involve spending a lot of money on something that probably wouldn't change much.

Person 3: I think that we shouldn't pass a law either, I think this country was founded by many nationalities and we should show our respect for this fact by keeping all of the different languages alive in the United States.

Person 4: And all of these diverse cultures make the United States what it is today, a melting pot. If you require people to speak English, people might start giving up their culture too.

Person 5: It would be a horrible law to enforce, it might require that we give people competency exams before people entered the U.S. This would be unfair to a lot of people and I disagree totally with passing a law that could result in this.

Person 6: You are right, it seems like having an official language would be similar to having an official religion and no one has a problem seeing how that would be wrong.

Person 4: Yes, it would force people to so something that they might not want to do. Next, we might insist that all immigrants wear American clothing and behave like Americans.

Person 1: It would also be very unfair to old people who have lived here for a long time and not learned English. We cannot expect them to learn to speak English now, they are too old. They must be doing fine as they are anyway.

Person 5: Most people, just out of daily necessity learn enough to get by and that should be enough English. No one should be forced to learn more than they want to or can.

Person 3: And another problem would involve forcing people to speak English and then they probably wouldn't teach their children how to speak their native language, and after several generations the family's native language would be

lost. I think that it happens a lot already and it is very
sad. Everyone wants to be so
American.

Person 5: I guess I don't really see the point, our country
has worked okay without such a law, why change things?

Person 3: Yes, I don't see how we would get any benefits
from such a law, it would just lead to discrimination.

Person 5: It would increase the level of discrimination
that is already present in our society.

Person 1: You know, anything that the person needs to read
is probably available in other languages too. There is, for
example, a Spanish and Greek version of the bible.

Person 3: And people can use a translator if they don't
understand what is going on. It is just a matter of
personal choice.

Conditions A5 and B5
Subjects Who Favored the Issue

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State University. These students were discussing whether or
not our government should pass a law that would make English
the official language of the United States. Comments
irrelevant to the discussion topic have been removed. The
group members' positions on the issue are as follows:

                    Person 1: In favor of passing the law
                    Person 2: In favor of passing the law
                    Person 3: Against passing the law
                    Person 4: In favor of passing the law
                    Person 5: In favor of passing the law
                    Person 6: In favor of passing the law

Please read the conversation transcript very carefully.

Group Conversation Transcript

Person 1: Well, I am in favor of passing a law because a lot of people come to the United States without knowing how to speak English and I think that that is wrong. They should learn the language before they come here.

Person 2: I agree, although this law might take a lot of money to pass, it would save money in the long run. We wouldn't have to print things in a bunch of different languages. I think it would be a good thing for our government to spend its time on.

Person 3: I think that we shouldn't pass a law. I think that this country was founded by many nationalities and we should show our respect for this fact by keeping all of the different languages alive in the United States.

Person 4: I disagree although that is one of the problems with us being a melting pot. We are a bunch of diverse cultures but we should try to have at least some common ground through language.

Person 5: The law could be easily enforced. You could just check and see if people spoke the language before they entered the country. It would cut down on a lot of immigrants coming to the country who don't want to give their all to the United States.

Person 6: You are right. It seems like having an official language would be similar to having one flag for the country or having an official state bird. It would give unity to us as a country.

Person 4: It would make everyone feel more like Americans.

Person 1: And people who had been here for a long time could learn the language by going to school. The government could provide free English lessons for older people or young children who haven't learned the language.

Person 5: Most people who speak only a little English don't even know enough just to get by. They cannot survive in an all English world and they tend to isolate themselves. That is not good.

Person 3: It is a problem to force people to speak English and then they probably wouldn't teach their children how to speak their native language, and after several generations the family's language would be lost. I think it happens a lot already and it is very sad. Everyone wants to be so American.

Person 5: Our country is really divided because of the language problem. I think that it would work better if everyone spoke the same language. We should really change things soon.

Person 3: I don't see how we would get any benefits from such a law, it would just lead to discrimination.

Person 5: No it wouldn't, it would reduce the amount of discrimination in our society. Everyone would be equal in language. That is important.

Person 1: And they wouldn't have to worry about finding things printed in their own language or shopping at stores that only had products printed in their language. It would be hard to find a Greek or Spanish Bible in this country. If they spoke English, they could buy an English one.

Person 3: But people can use a translator if they don't understand what is going on. I think that speaking English is a matter of personal choice.

Conditions A5 and B5
Subjects Who Opposed the Issue

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not our government should pass a law that would make English
the official language of the United States. Comments
irrelevant to the discussion topic have been removed. The
group members' positions on the issue are as follows:

> Person 1: Against passing the law
> Person 2: Against passing the law
> Person 3: In favor of passing the law
> Person 4: Against passing the law
> Person 5: Against passing the law
> Person 6: Against passing the law

Please read the conversation transcript very carefully.

Group Conversation Transcript

Person 1: Well, I am against passing a law because the people who come to the United States who don't know how to speak English usually have a lot to deal with, you know, just everyday survival things. I think it would be horrible to make them feel like, on top of everything else, they had to learn English right away too.

Person 2: I agree, I also think that it would be a pointless waste of the governments time. They have more important problems to deal with and this law would involve spending a lot of money on something that probably wouldn't change much.

Person 3: I disagree. Our country was founded by many different nationalities and we cannot possibly accommodate all of them. It would be good to just have one single language that we could all use to communicate.

Person 4: And all of these diverse cultures make the United States what it is today, a melting pot. If you require people to speak English, people might start giving up their culture too.

Person 5: It would be a horrible law to enforce, it might require that we give people competency exams before people entered the U.S. This would be unfair to a lot of people and I disagree totally with passing a law that could result in this.

Person 6: You are right, it seems like having an official language would be similar to having an official religion and no one has a problem seeing how that would be wrong.

Person 4: Yes, it would force people to so something that they might not want to do. Next, we might insist that all immigrants wear American clothing and behave like Americans.

Person 1: It would also be very unfair to old people who have lived here for a long time and not learned English. We cannot expect them to learn to speak English now, they are too old. They must be doing fine as they are anyway.

Person 5: Most people, just out of daily necessity learn enough to get by and that should be enough English. No one should be forced to learn more than they want to or can.

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English in public so people can understand what they are
saying.

Person 5: I guess I don't really see the point, our country
has worked okay without such a law, why change things?

Person 3: I think that sometimes people who don't speak
English get taken advantage of in our country. If they
spoke the language everyone else speaks, the wouldn't enter
into bad business deals and they would always know what was
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that is already present in our society.

Person 1: You know, anything that the person needs to read
is probably available in other languages too. There is, for
example, a Spanish and Greek version of the bible.

Person 3: People wouldn't need to have translators and they
would always know what was going on. It shouldn't be a
matter of personal choice, the should just learn the
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Conditions A6 and B6
Subjects Who Favored the Issue

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State University. These students were discussing whether or
not our government should pass a law that would make English
the official language of the United States. Comments
irrelevant to the discussion topic have been removed. The
group members' positions on the issue are as follows:

                    Person 1: In favor of passing the law
                    Person 2: Against passing the law
                    Person 3: Against passing the law
                    Person 4: In favor of passing the law
                    Person 5: Against passing the law
                    Person 6: In favor of passing the law

Please read the conversation transcript very carefully.

Group Conversation Transcript

Person 1: Well, I am in favor of passing a law because a lot of people come to the United States without knowing how to speak English and I think that that is wrong. They should learn the language before they come here.

Person 2: I disagree with you. I think that it would be a pointless waste of the government's time. They have more important problems to deal with and this law would involve spending a lot of money on something that probably wouldn't change much.

Person 3: I think that we shouldn't pass a law. I think that this country was founded by many nationalities and we should show our respect for this fact by keeping all of the different languages alive in the United States.

Person 4: I disagree although that is one of the problems with us being a melting pot. We are a bunch of diverse cultures but we should try to have at least some common ground through language.

Person 5: It would be a horrible law to enforce, it might require that we give people competency exams before people entered the U.S. This would be unfair to a lot of people and I disagree totally with passing a law that could result in this.

Person 6: I don't know. It seems like having an official language would be similar to having one flag for the country or having an official state bird. It would give unity to us as a country.

Person 4: It would make everyone feel more like Americans.

Person 1: And people who had been here for a long time could learn the language by going to school. The government could provide free English lessons for older people or young children who haven't learned the language.

Person 5: Most people, just out of daily necessity learn enough to get by and that should be enough English. No one should be forced to learn more than they want to or can.

Person 3: It is a problem to force people to speak English and then they probably wouldn't teach their children how to speak their native language, and after several generations the family's language would be lost. I think it happens a lot already and it is very sad. Everyone wants to be so American.

Person 5: I guess I don't really see the point, our country has worked okay without such a law, why change things?

Person 3: I don't see how we would get any benefits from such a law, it would just lead to discrimination.

Person 5: Yes, it would increase the level of discrimination that is already present in our society.

Person 1: But they wouldn't have to worry about finding things printed in their own language or shopping at stores that only had products printed in their language. It would be hard to find a Greek or Spanish Bible in this country. If they spoke English, they could buy an English one.

Person 3: But people can use a translator if they don't understand what is going on. I think that speaking English is a matter of personal choice.

Conditions A6 and B6
Subjects Who Opposed the Issue

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6 Introductory psychology students here at Grand Valley
State University. These students were discussing whether or
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the official language of the United States. Comments
irrelevant to the discussion topic have been removed. The
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> Person 1: Against passing the law
> Person 2: In favor of passing the law
> Person 3: In favor of passing the law
> Person 4: Against passing the law
> Person 5: In favor of passing the law
> Person 6: Against passing the law

Please read the conversation transcript very carefully.

Group Conversation Transcript

Person 1: Well, I am against passing a law because the people who come to the United States who don't know how to speak English usually have a lot to deal with, you know, just everyday survival things. I think it would be horrible to make them feel like, on top of everything else, they had to learn English right away too.

Person 2: I disagree with you. Although this law might take a lot of money to pas, it would save money in the long run. We wouldn't have to print things in a bunch of different languages. I think it would be a good thing for our government to spend its time on.

Person 3: Yes, I agree. Our country was founded by many different nationalities and we cannot possibly accommodate all of them. It would be good to just have one single language that we could all use to communicate.

Person 4: But all of these diverse cultures make the United States what it is today, a melting pot. If you require people to speak English, people might start giving up their culture too.

Person 5: The law could be easily enforced. You could just check and see if people spoke the language before they entered the country. It would cut down on a lot of immigrants coming to the country who don't want to give their all to the United States.

Person 6: I don't know, it seems like having an official language would be similar to having an official religion and no one has a problem seeing how that would be wrong.

Person 4: Yes, it would force people to so something that they might not want to do. Next, we might insist that all immigrants wear American clothing and behave like Americans.

Person 1: It would also be very unfair to old people who have lived here for a long time and not learned English. We cannot expect them to learn to speak English now, they are too old. They must be doing fine as they are anyway.

Person 5: Most people who speak only a little English don't even know enough just to get by. They cannot survive in an all English world and they tend to isolate themselves. That is not good.

Person 3: People could still speak their native language in their homes. Then their children could know the language of their relatives. It is just important that they speak English in public so people can understand what they are saying.

Person 5: Our country is really divided because of the language problem. I think that it would work better if everyone spoke the same language. We should really change things soon.

Person 3: I think that sometimes people who don't speak English get taken advantage of in our country. If they spoke the language everyone else speaks, the wouldn't enter into bad business deals and they would always know what was going on during business and daily transactions.

Person 5: Yes, it would reduce the amount of discrimination in our society. Everyone would be equal in language. That is important.

Person 1: You know, anything that the person needs to read is probably available in other languages too. There is, for example, a Spanish and Greek version of the bible.

Person 3: People wouldn't need to have translators and they would always know what was going on. It shouldn't be a matter of personal choice, the should just learn the language in order to live here.

APPENDIX 4

THOUGHT-LISTING SHEET I

APPENDIX 4

THOUGHT-LISTING SHEET I

In the spaces provided below, please list all of your thoughts about our government passing a law that would make English the official language of the United States. You will notice that there are separate columns for **arguments** and **counterarguments**. Place all of your thoughts **in favor of** passing a law that makes English the official language of the United States in the **arguments** column. Place all of your thoughts **against** passing a law that makes English the official language of the United States in the **counterarguments** column. Please do not feel as if you need to fill in an equal number of spaces on each side. It is very important, though, that you list **every** argument and counterargument that comes to mind. Please list each thought separately.

ARGUMENTS	**COUNTERARGUMENTS**
1. _____	1. _____
_____	_____
2. _____	2. _____
_____	_____
3. _____	3. _____
_____	_____
4. _____	4. _____
_____	_____
5. _____	5. _____
_____	_____
6. _____	6. _____
_____	_____

APPENDIX 5

HOMOSEXUAL ATTITUDE SCALE

APPENDIX 5

HOMOSEXUAL ATTITUDE SCALE

Please Answer the following question.

1. I am   **IN FAVOR** _____ **AGAINST** _____

the legal marriage between homosexuals.

APPENDIX 6

THOUGHT-LISTING SHEET II

APPENDIX 6

THOUGHT-LISTING SHEET II

In the spaces provided below, please list all of your
thoughts about allowing homosexuals to marry legally. You
will notice that there are separate columns for **arguments**
and **counterarguments**. Place all of your thoughts **in favor
of** allowing homosexuals to marry legally in the **arguments**
column. Place all of your thoughts **against** allowing
homosexuals to marry legally in the **counterarguments** column.
Please do not feel as if you need to fill in an equal number
of spaces on each side. It is very important, though, that
you list **every** argument and counterargument that comes to
mind. Please list each thought separately.

ARGUMENTS	**COUNTERARGUMENTS**
1. _____	1._____
_____	_____
2. _____	2._____
_____	_____
3. _____	3. _____
_____	_____
4. _____	4._____
_____	_____
5. _____	5._____
_____	_____
6. _____	6._____
_____	_____

APPENDIX 7

DEBRIEFING FORM

APPENDIX 7

DEBRIEFING FORM

SOME MORE INFORMATION ABOUT THE STUDY

Most research regarding minority influence in small groups
seems to show that minority members are not as influential
as majority members because their numbers are smaller.
Interestingly, some of the research conducted over the past
two years has shown that not only are minority members
influential, but that their influence brings about a change
in the way people think about issues. The study you just
participated in is part of a larger ongoing project
investigating the effects of minority influence, especially
with respect to cognitive processes.

During this experiment, some of you may have been told that
you were going to discuss two issues with an already
existing group. Although we never like to mislead students,
the reason we may have told you this is because our past
research has shown that individuals think differently about
issues when they expect to have to defend their own
position. In addition, we are interested in how people
respond to certain thoughts depending upon whether they are
minority or majority members.

If you should have any questions regarding this study,
please feel free to contact the experimenter, Christine
Smith, at 895-2424 or stop by her office in Au Sable Hall
room 274. Should you care to read more about this
particular area of research, the following references would
be a great place to start. Thank you very much for your
participation.

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Christine M. Smith received her B.A. in psychology from Indiana University, South Bend in May of 1990. She began her graduate work at Loyola University, Chicago in the Applied Social Psychology program the following Fall. She worked as a Graduate Research Assistant for three years and was also awarded a University Teaching Fellowship during her fourth year in the program. Ms. Smith was awarded her Master's degree in 1993. Her thesis addressing the qualitative and quantitative differences between minority and majority influence was published in The British Journal of Social Psychology. She has also presented her work on minority influence at several conferences including the Fourth European Congress of Psychology in Athens, Greece.

Ms. Smith is currently on the faculty of the Psychology Department at Grand Valley State University where she teaches within the area of Social Psychology and continues her research regarding social influence in small groups.

DISSERTATION APPROVAL SHEET

The dissertation submitted by Christine M. Smith has been read and approved by the following committee:

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The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and the dissertation is now given final approval by the committee with reference to content and form.

The dissertation is, therefore, accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

2/12/96
Date

Director's Signature