

Attitudes toward Abortion, Religion, and Party Affiliation among College Students

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Public attitudes toward abortion have long been an issue in American political debates. Theoretical understanding of influences on abortion attitudes may assist researchers in determining contributors of the attribution. Accordingly, this study administered a 40-item abortion opinion survey to 396 college students at a Midwestern university to determine potential factors correlated with abortion attitudes. Several factors such as religious involvement, knowledge of someone who has an abortion, and one's definition as to when life begins were correlated with abortion attitudes. Furthermore, Democrats reported stronger pro-choice views than Republicans did. Similarly, Liberals were more pro-choice oriented than Conservatives. Although causal relationships were not directly explored, theoretical explanations and support provide for a thorough understanding of potential factors of abortion attitude formation and a preliminary model. Future implications are also discussed.

The public's attitudes toward abortion have been of great interest since the Women's Liberation Movement began in the late 1960s and then increased following the ruling of *Roe v. Wade* in 1973. Studies and polls abound on the public opinion of legalized abortion. However, the underlining factors associated with these opinions are still somewhat unclear. Do students' opinions of abortion change under specific situations, such as pregnancy caused by rape? What factors affect students' opinions on abortion? Do religious beliefs influence college students' opinions about the morality of abortion? If so, how? Consequently, a need exists to examine college students' opinions on the legal status and morality of abortion, as well as, how religious beliefs and involvement may be attributed to those opinions.

Eighteen years ago, the General Social Survey's Social Change Report (Smith, 1985) reported a general shift towards the pro-life stance since 1973. Yet, as high as 90% of these respondents supported abortion when the pregnancy endangered the mother, the fetus was deformed, or the pregnancy resulted from rape or incest. In contrast, support for legal abortion fell 50% in the cases of poverty, being unwed, and not wanting more children. Smith attributed these findings to a revival of family values. The elder-Bush administration in the late 1980s and early 1990s revived the family values lost during the 1970s, resulting in greater conservative feelings, a return to church involvement, and a societal revamping of acceptable social norms. Consequently, the questionable morality of abortion underwent the nation's self-examination once again.

This examination led the General Social Survey, a reliable and consistent data

source on public opinion, to survey Americans about their attitudes toward abortion. Since 1972, the questions referencing abortion attitudes have remained the same. Wiederman and Cregan-Sensibaugh (1995) claimed “researchers analyzing these data have either scanned them in search of distinct changes over time, without conducting the requisite statistical tests on select data from only a few years” (p. 786). However, conflicting interpretations of the data set resulted. Some researchers report a decrease in acceptance of abortion, while others find increasing acceptance, yet others claim no change. Wiederman and Cregan-Sensibaugh (1995) determined that men’s opinions have not changed, while women’s acceptance has decreased very slightly. The average level of acceptance was stable from 1972–1991. However, random changes between any two given years did occur.

Currently, the majority of Americans hold the middle ground regarding abortion. An April 2004 FOX News Poll, found Americans split between pro-choice (44%) and pro-life (47%) opinions. Surprisingly, many Americans think all abortions should be legal or illegal regardless of the circumstances surrounding the abortion. Specifically, a 2003 Time/CNN poll found 39% of respondents held the extreme pro-choice belief that all abortions should be legal. On the other hand, 15% said abortions should be illegal in all situations. Finally, a third poll found essentially no difference between men and women’s opinions on abortion (Carroll, 2001). Forty-seven percent of men and women considered themselves pro-choice, and 46% of men and 45% of women said they were pro-life.

During the 2000 presidential election, 48% of polled voters said the abortion issue was very important in determining their vote for president (ABC News/Washington Post Poll, 2000). One year earlier, the 1999 Gallup poll found Democrats and Independents were more likely to designate themselves as pro-choice than Republicans would (Saad, 1999). Furthermore, the majority of respondents who claim religion as very important in their lives reported themselves to be pro-life. Those claiming religion as somewhat or not important predominantly held pro-choice views. Interestingly, opinions have regularly split the country by region. The South, also known as the “Bible Belt,” traditionally held strong Conservative opinions on abortion while the Northeast and West held liberal pro-choice beliefs (Judis, 2000).

Despite these findings, variables, such as age, race, sex, income, marital status, employment, religion, family values, and number of children may moderate abortion opinions (Harris & Mills, 1985). For example, a married person may be more likely to be pro-life due to their more secure environment; the need for an abortion would be far less for a married couple. Specifically, married couples are better able to care emotionally, physically, and financially for a child than an unwed mother, which suggests marriage may be more conducive to a pro-life stance.

Harris & Mills (1985) also suggested the question for a woman’s right to seek abortion evokes contrasting values within the respondent. The reasoning of the response depends on two factors: the condition and circumstances of the pregnancy, and the weight given to two contrasting life values: responsibility to others and the freedom to determine one’s own choices in life (Harris & Mills). Frequently, the respondent is torn between these values, unable to find a balance between them. This conflict

may be why society finds it difficult to make a clear stance on the legality and morality of abortion.

Tamney and Johnson (1992) studied reasons why people do or do not support legalized abortions, paying close attention to cultural and ideological moderators of abortion attitudes. They reported a belief in privacy, feminism, life begins at conception, social traditionalism, political conservatism, and all life is worth preserving as major factors determining attitudes toward abortion. Participants voiced such attitudes in comments, such as, a person has the right to control their own body, and nature should follow God's rules and should remain undisturbed. Religious beliefs contributed strongly to the belief that all life is sacred. Therefore, many people believe abortion goes against God's rules, devaluing human life. Religious beliefs play an important role in determining one's morals. No wonder, abortion is one of the largest moral issues of modern society. Accordingly, church influence should play a significant variable in attitudes towards abortion.

Similarly, Petersen (2001) found education and religious rank to be two of the most reliable sociodemographic predictors of abortion attitudes. As a person attends church more frequently, their view of legalized abortion becomes more restrictive (Sullins, 1999). While investigating this theory, Petersen measured church attendance on a nine-point scale that ranged from never to several times per week. Peterson found frequent church attendance, especially of Catholic and Protestant religions, resulted in a generally conservative stance. A conservative stance is generally associated with social traditionalism, the belief that society should return to its past values and behaviors. In the past, society did not accept abortion. However, Tamney & Johnson (1992) found this relationship between conservatism and anti-abortion beliefs was only significant in the highly educated population. Their findings suggest underlying characteristics are the potential motivators of such opinions, for example being upper class and political philosophy.

Religion is a frequently observed factor in abortion attitudes; however, few researchers explain why this occurs. Cochran, Chamlin, Beeghley, Harden, and Blackwell (1996) chose a sociologic approach in discussing why and how religion may influence attitudes on abortion. They attribute the relationship between religious beliefs and abortion opinions to the formation of one's reference groups. Similarly, Brim and Wheller (1966) explained the impact of primary groups and significant others on values beginning in childhood. People experience social learning and develop values because of interactions with significant others. Through their counseling in times of need, religious leaders frequently become the significant others to parishioners. These significant others form reference groups and primary groups (Merton & Rossi, 1968). However, before people can compare their opinions to the group norm, a point of reference, they must believe themselves to be analogous to the group. From an early age, religious groups serve as influential reference groups. Religion innately produces beliefs and values through required adherence to its teachings. Thus, regular church attendance helps in the formation of primary groups, producing norms and models of behavior. Therefore, religious groups have a significant impact on abortion opinions, typically producing conservative pro-life viewpoints.

Sullins (1999), using General Social Survey Data from 1972–1996, found no difference between Protestants and Catholics concerning pro-life or pro-choice positions. He attributed this convergence of religions to the opinion differences among generations, a variation in church teachings, and to a steep decline in church attendance during this time span among Catholics, but not Protestants. The religions were not changing, the people were. Specifically, Sullins also noted youthful Catholics were becoming more permissive on abortion. This finding may be the result of the Catholic Church becoming more permissive on matters such as divorce, remarriages, and contraception use, which led to an uninformed belief that the Catholic Church has lightened its stance on abortion as well. Contrarily, youthful Protestants are becoming more restrictive, possibly due to disgruntled Catholics converting to Protestantism. However, Sullins later contradicts himself stating religious “denominational differences are relatively constant over time” (p. 355). This statement claims that Catholics and Protestants are not changing in opinion after he reported they were. The majority of Catholics and Protestants still appear to be pro-life, but now believe in abortions for special circumstances such as a pregnancy caused by rape. Consequently, these contradictory findings warrant further investigation to determine true current opinions.

Opinion inventories, such as those conducted by the Gallup Organization, have generally found little change in Americans’ opinions regarding the legality of abortion. However, Sullins (1999) found evidence to contradict the notion that American societal opinion of abortion is a stable one. Sullins’ main theme is people within all religions are polarizing to extreme pro-choice and pro-life stances. Yet, he reported differences in the Catholic and Protestant beliefs regarding abortion as no longer noticeable, contradicting his own viewpoint. Interestingly, opinion polls over the last 50 years have shown the majority of Catholics disagree with their church leadership on multiple issues including contraception use and abortion (Doerr, 1999). Consequently, Catholics divorce, use contraception, and have abortions at rates similar to non-Catholics. These findings may result because Catholics seem to follow their own moral codes rather than those of the Church for personal concerns. Further, extreme polarities in opinion will neutralize each other, creating a mean not distinctly pro-choice or pro-life, appearing as if only moderate opinions on abortion exist, when in reality, extreme opinions exist in both directions (Sullins). Therefore, an in-depth data analysis of this bipolarity is needed.

Many women are pro-life, as indicated by The Center for Gender Equality’s report that women wanted to ban 98% of the abortions conducted in the United States. The 2% allowance, results from pregnancies due to rape or incest, or to save the mother’s life (D’Agostino, 1999). Even more surprising, half the women surveyed agreed with the statement: abortion is murder. Almost half of the women wanted religious organizations to increase involvement in the public debate over abortion. However, despite a general belief by most that religion is the greatest persuader, only 32% said religion had the largest influence on their opinions. Consequently, further research is warranted to investigate what has the largest influence on their opinions.

Carlton, Nelson, and Coleman (2000) surveyed male and female college students on abortion attitudes, commitment to such attitudes, and abortion experience. Results

showed a normal distribution of abortion attitudes, with no significant difference in attitudes between males and females. However, individuals with direct abortion experience (either they or a sexual partner had an abortion) had “significantly stronger pro-choice attitudes” than those without such experience. This response is most likely due to the student’s cognitive dissonance, a psychological conflict. Cognitive dissonance occurs in individuals presented with situations where they behave contrary to their beliefs. Accordingly, the individual will often change their views to reduce their discomfort. Consequently, a student who knows someone who had an abortion may report pro-choice views to avoid cognitive dissonance. The student may find it easier to change his or her views rather than condemn his or her friend’s decision or lose the friendship. College students showed the situation surrounding the abortion was very important in determining their opinions (Carlton et al.).

Consequently, based on the previous research and theoretical reasoning the following hypotheses result:

- 1) Democratic students will report pro-choice opinions and Republican students will report pro-life opinions.
- 2) Liberal students will report pro-choice opinions and Conservative students will report pro-life opinions.
- 3) Students who believe life begins at conception will be pro-life; students who believe life begins at birth will be pro-choice.
- 4) Catholic students will report strong pro-life opinions more often than Protestant students will.
- 5) Students’ approval of abortion decreases as the level of religious involvement and commitment increases.

METHOD

Participants

Three hundred ninety-two (278 female, 114 male) undergraduate students at a medium-sized Midwestern university participated as partial requirement of their introductory psychology classes; age ranged from 18 to 30; however, 88% were 18–20 years old. All Ethical Principles of Psychologist and Code of Conduct were followed. Demographics, such as age, marital status, and religious affiliation, of the sample are located in Table 1.

Survey of Student Attitudes toward Abortion

The survey (see Appendix A) contains 40 questions addressing abortion opinions, religious beliefs, and other factors potentially contributing to pro-choice and pro-life stances. The majority of items utilized a 5-point Likert scale (1 —Strongly Disagree, 5 —Strongly Agree). The survey contained two sections: Abortion Opinions and Other Influences/Demographics. The first section examines opinions regarding the legal and

TABLE 1
Participant Demographics & Religious Information

Sex	Age	Marital		Ethnic		Religious		Religious		Religious			
		Status		Background		Affiliation		Attendance		Devotion			
Male	29%	18-20 yrs	88%	Single	96%	Caucasian	90%	Catholic	43%	Weekly	29%	High	10%
Female	71%	21-23 yrs	09%	Married	03%	Hispanic	04%	Protestant	13%	Monthly	25%	Moderate	47%
		24-26 yrs	01%			African Amer.	02%	Muslim	01%	Occasional	35%	Low	31%
		27-29 yrs	01%			Asian Ameri.	01%	Buddhist	01%	Never	11%	None	12%
		30 - Up	01%			Other	03%	Other	31%				
							None	11%					

moral status of abortion under various situations and the participants' experience with abortion. This section includes statements such as "Abortion should be legal in the case of rape or incest" and "Abortion is morally wrong." The second section examines other factors such as sexual activity, religious beliefs, and political beliefs. Questions and statements in the second section include: "How often do you attend activities at a place of worship?" and "I know someone who had an abortion."

To analyze the data, all pro-life slanted questions (1, 8, 15, and 18) were reverse-scored to reflect a pro-choice slant. The revised scores and the original pro-choice scores for items 1, 2, 4, 7-15, and 18 combined to form a person's total pro-choice score ranging from 13-65. Hence, a low score indicates pro-life beliefs and a high score indicates pro-choice beliefs.

Several items were essentially filler items with no direct relevance to the theoretical reasoning of the paper. These items were items 3, 5, 6, 16, 17, 19, 21, 22, 23, 26, 36, 37, 39, and 40. However, those items might help to clarify possible contradictions in the data later. The remaining items in Section 2 (24, 25, 27-35, and 38) were the quasi-independent variables used in the study.

Procedure

Upon arrival at the assessment site, a typical college classroom, participants sat at least one seat apart prior to participation to protect privacy. No more than 30 participants completed the surveys at any one session. Before completing the surveys, participants read and signed informed consent forms. Participants completed the 30-minute surveys by darkening the appropriate circles on the scantron answer sheets.

Upon completion, the participants turned in their surveys facedown on a table at the front of the classroom and received a debriefing.

RESULTS

To determine if our total pro-choice construct was valid, correlations were run between the total score (facet approach) and the responses to whether they were pro-choice and pro-life (global approach). A total of 392 paired observations occurred, with both sets of correlations being significant, $p < .001$. Specifically, the correlation between pro-choice and the total score was $r = .81$; whereas, the pro-life and total pro-choice score was $r = -.71$. These correlations suggest the pro-choice total score construct is valid. This construct was the dependent variable in each of the following ANOVAs and t-tests, unless otherwise specified.

To test the first hypothesis that Democratic students would report pro-choice opinions more than Republican students, a between ANOVA was run on total pro-choice response score. The result was significant, $F(3, 385) = 8.596, p < .0001$, supporting the hypothesis. Tukey post hoc tests revealed that Republicans ($M = 28.71, SE = 0.8747$) were much less pro-choice than the other three groups: Other ($M = 34.42, SE = 1.08$), Democrats ($M = 34.75, SE = 1.60$), and Independents ($M = 36.46, SE = 1.57$). Interestingly, a similar analysis concerning philosophical outlook (Liberal vs. Conservative) is noticeable in another significant finding, $F(3, 379) = 21.12, p < .0001$. Tukey *post hoc* tests ($p < .05$) revealed that Liberals and Extremists ($M = 38.09/46.44, SE = 1.12/4.24$, respectively) did not differ from each other, but were much more pro-choice than

TABLE 2
Mean Total Pro-Life, Pro-Choice, Religion, Worship Frequency,
and Religious Devotion from Response Section

Pro-life		Pro-choice		Religion		Religious Attendance		Religious Devotion	
Mean (N)		Mean (N)		Mean (N)		Mean (N)		Mean (N)	
Strgly Disagr	46.59 (46)	Strgly Disagr	19.68 (86)	Jewish	47.00 (2)	Everyday	29.17 (6)	High	21.53 (40)
Disagree	41.04 (46)	Disagree	26.79 (48)	None	44.00 (42)	Over 1/week	25.67 (39)	Moderate	30.58 (183)
Neutral	37.34 (96)	Neutral	37.72 (110)	Buddhist	36.40 (5)	1/week	25.59 (39)	Low	35.99 (119)
Agree	31.80 (90)	Agree	37.56 (75)	Protestant	33.04 (53)	1-2/month	31.55 (96)	None	44.15 (48)
Strgly Agree	21.60 (114)	Strgly Agree	47.84 (77)	Muslim	32.67 (6)	Occasional	37.03 (135)		
				Catholic	32.16 (167)	Never	42.73 (44)		
				Hindi	24.50 (2)				

Moderates ($M = 32.58$, $SE = 0.89$), who were still more pro-choice than Conservatives ($M = 27.93$, $SE = 0.95$). These findings support Hypothesis 2.

To determine if individuals who view life as beginning at birth were more pro-choice (Hypothesis 3), an adjusted pro-choice score was necessary. The new dependent measure consisted of the total pro-choice scores without the inclusion of Questions 1 and 2. This adjusted score was methodologically similar to the total scores, demonstrating superb convergent construct validity as represented by its near perfect correlation with the total score ($r = .99$, $p < .001$). Next, Pearson correlations between the pro-choice and pro-life responses with the adjusted scores resulted in two significant findings ($r = .82$, $r = -.70$, respectively; $p < .001$). Similarly, a two-way between ANOVA for pro-choice (Question 19) and pro-life (Question 20) responses yielded the expected results. Specifically, both Pro-Choice ($F(4, 381) = 61.8$, $p < .001$) and pro-life ($F(4, 381) = 9.50$, $p < .001$) were significant with the mean trends as expected (see Table 2).

Due to sample size, several different analyses of variance were needed to determine the potential effects of religious affiliation and participation on abortion. First, a between ANOVA revealed significant differences between the various religions on their pro-choice outlook, $F(4, 381) = 9.50$, $p < .0001$. Upon closer investigation, Tukey *post hoc* tests showed that the only differences seemed to exist between those who reported no religion ($M = 44.0$, $SE = 1.65$) and Protestants ($M = 32.85$, $SE = 1.61$) and Catholics ($M = 32.12$, $SE = 0.82$) (Table 2). No difference existed behind Protestants and Catholics, failing to support Hypothesis 4.

A second ANOVA also revealed significant differences between the amount of religious worship on the pro-life scores, $F(5, 385) = 23.84$, $p < .0001$, as hypothesized. Specifically, all groups who worshipped regularly at least once a week (e.g., 1-Everyday, 2-Over once a week, 3-Once a week) were not different from each other concerning their pro-choice stance. However, the remaining three groups differed from themselves as well as from the regular worshippers (See Table 4). Furthermore, another between ANOVA for how religious a person rated themselves yielded significant results concerning their pro-choice scores, $F(3, 386) = 43.29$, $p < .0001$. The trend for the means (Table 2) demonstrates that as one's rating of religiousness increased, their pro-choice score decreases. This finding is further supported by the significant Pearson correlation between religious worship and pro-choice, $r = .39$, $p < .001$. Therefore, students' approval of abortion did decrease as the level of religious involvement and commitment increased, supporting Hypothesis 5.

Although not directly hypothesized, several other quasi-variables were submitted to analysis of variance tests to tease out potential explanations for why individuals might be pro-choice versus pro-life. ANOVAs and t-tests run on each of the following variables (Sex, Sexual Orientation, Desire to Have Children, Ethnicity, Region of the Country, Marital Status, Age, Had an Abortion, and Class Status) resulted in nonsignificant findings, $p > .3212$ in all cases. Conversely, independent t-tests (equal variances) for Knowing Someone Who Had an Abortion ($t(383) = 2.03$, $p = .04$) and Supporting a Person ($t(147) = 10.30$, $p < .05$) proved significant. Knowing someone respondents ($M = 34.29$, $SE = .917$) were more pro-choice than one who did not know

TABLE 3
Correlation Table for Primary Attitudinal Factors: Pro-Life, Pro-Choice, Religious Influence, Family Influence, and Friend Influence

	PL	PC	RI	FMI
PC	-.741**			
RI	.536**	-.520**		
FMI	.249**	-.224**	.446**	
FI	-.118*	.182**	.325**	.474**

* $p < .05$

** $p < .01$

someone ($M = 31.86$, $SE = .785$). Similarly, if someone supported an individual who had the abortion, they were strongly more pro-choice ($M = 43.95$, $SE = 1.29$) than those who did not ($M = 27.45$, $SE = .997$).

To determine perceived influences associated with the development of their abortion opinion, Pearson correlations were run between respondents' pro-life (PL), pro-choice (PC), religious influence (RI), family member influence (FMI), and friends' influence (FI) ratings with their total pro-choice score. Friends' influence ratings were not correlated with any of the other variables, $p > .05$. The remaining pairs were all significant, (see Table 3). Religious influence was negatively correlated with pro-choice ($r = -.52$, $p < .001$) and positively correlated with pro-life ($r = .54$, $p < .001$). Simply put, as religious attendance increased, so did a person's pro-life stance. To explore the pattern of influence further, three one-way ANOVAs were run on Religious Influence, Family Influence, and Friendship Influence. Only Religious Influence was significant, $F(4, 375) = 43.085$, $p < .001$. The similarities between Catholic and Protestant responses may result from the similarity of the two religions. Furthermore, the lack of a difference may be the product of the increasing number of interfaith marriages, as the varying faiths of both parents may equally influence the beliefs of their child.

To determine the weight of these factors on pro-choice stance, a stepwise multiple regression (In: $p \leq .05$, Out: $p \geq .10$) was run by regressing adjusted total score onto religious influence, family influence, friends influence, sex, sexual orientation, abortion, knowing someone who had an abortion, support, religious group, religious attendance, religiosity, philosophical outlook, political affiliation, ethnicity, marital status, and age. The resulting regression equation included seven significant factors: (1) Life Begins at Conception, (2) Religious Influence, (3) Life Begins at Birth, (4) Person Supportive of Abortion Decision, (5). Amount of Religious Attendance, (6) Age, and (7) Knowing Someone Who Had an Abortion (See Tables 4 and 5 for Regression Table information).

TABLE 4
Stepwise Regression of Adjusted Total Pro-Choice Score
on Various Predictor Variables #1

Model	R ²	Adjusted R ²	F	df ²
Conception	.377	.376	232.08	383
1. Conception, Religious Influence	.499	.496	190.01	382
2. Conception, Religious Influence, Birth	.525	.521	140.34	381
3. Conception, Religious Influence, Birth, Supported Person	.544	.539	113.25	380
4. Conception, Religious Influence, Birth, Supported Person, Worship Amount	.550	.544	92.76	379
5. Conception, Religious Influence, Birth, Supported Person, Worship Amount, Age Group	.557	.550	79.20	378
6. Conception, Religious Influence, Birth, Supported Person, Worship Amount, Age Group, Know Someone	.563*	.554	69.27	377

* sig @ $p < .05$

TABLE 5
Stepwise Regression of Adjusted Total Pro-Choice Score
on Various Predictor Variables #2

Model	Sum of Squares	df	Mean Squares
1. Regression	14670.504	1	14670.504
Residual	24210.844	383	63.214
Total	38881.348	384	
2. Regression	19390.002	2	9695.001
Residual	19491.346	382	51.024
Total	38881.348	384	
3. Regression	20410.423	3	6803.474
Residual	18470.925	381	48.480
Total	38881.348	384	
4. Regression	21144.132	4	5286.033
Residual	17737.216	380	46.677
Total	38881.348	384	
5. Regression	21396.741	5	4279.348
Residual	17484.607	379	46.134
Total	38881.348	384	
6. Regression	21655.263	6	3609.211
Residual	17226.085	378	45.572
Total	38881.348	384	
7. Regression	21874.509	7	3124.930
Residual	17006.839	377	45.111
Total	38881.348	384	

Model 1: Conception

Model 2: Conception, Religious Influence

Model 3: Conception, Religious Influence, Birth

Model 4: Conception, Religious Influence, Birth, Supported Person

Model 5: Conception, Religious Influence, Birth, Supported Person, Worship amount

Model 6: Conception, Religious Influence, Birth, Supported Person, Worship amount,
Age Group

Model 7: Conception, Religious Influence, Birth, Supported Person, Worship amount,
Age Group, Know Someone

DISCUSSION

In this study, results indicate college students were again divided on the legality of abortion. To understand the results more effectively, a summary table of results to key questions can be found in Table 6 and should be addressed as needed. A slight majority of these students (52%) reported themselves as pro-life. This belief stems from several factors, which have been attributed to diverse influences such as politics, religion, family, and friends. Furthermore, the results fully support Hypotheses 1, 2, 3, and 5. In agreement with previous research (Saad, 1999) and theoretical reasoning, Democratic and Republican students held differing beliefs regarding the legality and morality of abortion. Specifically, students who claimed to be Democratic were more pro-choice in the viewpoints than their Republican counterparts were. Similarly, liber-

TABLE 6
Results of Key Questions

Opinion	Religion Influences Abortion Opinions	Life Begins at Conception	Life Begins at Birth	Abortion is Murder	Abortion is Immoral	I am Pro-choice	I am Pro-life
Disagree	39%	15%	49%	29%	24%	34%	24%
Neutral	16%	18%	14%	21%	24%	25%	24%
Agree	45%	68%	37%	51%	52%	40%	52%
Opinion	Legal in Cases Of Rape	Legal if mother's life is in Danger	Legal if there is a Birth Defect	Abortion Be Illegal in All Situations	Abortion Be Legal in All Situations	Know someone who had an Abortion	Had an abortion
Disagree	17%	14%	57%	57%	66%	53%	97%
Neutral	12%	19%	20%	14%	16%	00%	00%
Agree	71%	67%	23%	29%	18%	47%	03%

als also reported higher pro-choice viewpoints than the Conservative respondents did, an effect that was almost twice that associated with political party affiliation. Together, these two findings parallel today's uncertainty concerning abortion issues in America. This finding also highlights that philosophical outlook may be a more useful and accurate measurement of the relationship between political ideology and opinions than the less defined differences between political parties.

Interestingly, although differences did exist between various groups, most of the overall ratings were centralized, in agreement with the 2000 Gallup Poll, and not polarized. For example, the majority of students believed abortion should only be legal under certain circumstances, such as in the case of rape (71%) and when the mother's life is at risk (67%), but not all cases. Only 18% of the respondents supported the legalization of abortion in all circumstances, down 10% from what Carroll (2001) reported, while 29% claimed all abortions should be banned via legislation, regardless of the circumstances surrounding the pregnancy, up 10% (Carroll). Specifically, the majority disagreed with legalized abortion in the following cases: if parents could not afford the child, if they wanted a child of a different sex, if they simply did not want the child, or the fetus had a physical defect.

A more enlightening distinction as to the potential reasons for abortion becomes clearer from the results associated with Hypotheses 3-5. The majority of students did agree with the statement that life begins at conception (68%). However, the strong positive relationships between Pro-Life and Birth at Conception, and Pro-Choice and Life at Birth strongly indicate that one's opinion may be driven by their definition of when life begins. Although the reverse could be true as well, theoretical understanding would suggest this contention is less feasible. Specifically, if one does not believe the

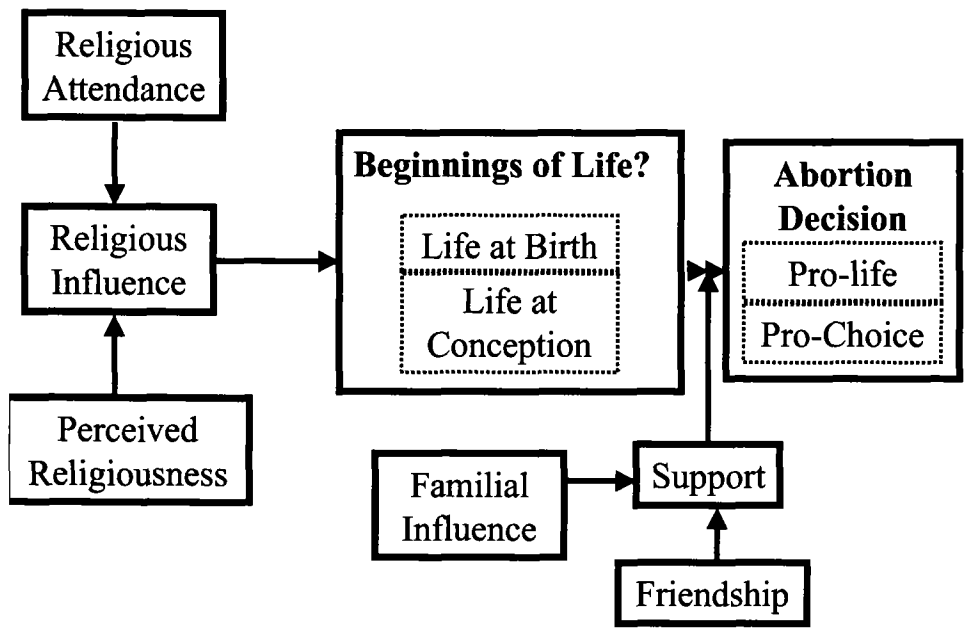
fetus has begun life, how could one believe they have killed anything (the reason given by pro-life advocates)? This idea may further explain why Hypothesis 4 was not supported. Catholics and Protestants did not differ in their views toward abortion, nor did they differ from any other religion, but they did differ from religion-none respondents. The similarities between these groups' responses may result from the similarity of the two religions. (Note: The small sample size for other groups makes any conclusions concerning these religions difficult.) Furthermore, the lack of a difference may be the product of the increasing number of interfaith marriages, as the varying faiths of both parents may equally influence the beliefs of their child. To fully investigate this situation, a *post hoc* independent t-test (equal variances) was run for life at conception between Catholics/Protestants with non-religion respondents. Catholics and Protestants believed life began at conception ($M = 4.04$, $SE = .07$) significantly more than those who claimed no religion ($M = 2.81$, $S = .194$), $t(262) = 6.61$, $p < .001$.

This finding is directly in line with the theoretical reasoning that religion greatly influences our opinions on abortion (Cochran et al., 1996). Most church doctrines teach the sanctity of life as beginning at conception; non-believers would not undergo this viewpoint as regularly as individuals who adhere to a particular religion. Consequently, the failure to find a difference between Protestants and Catholics should not be surprising, especially since there appears to be a convergence or "melding" of Christian faiths across the country, making the distinction between Catholics and Protestants more problematic. Additionally, significant correlations, ranging from .106 to .553, existed between whether a student believed in life beginning at conception or at birth. This pattern of correlations similarly suggests the association of how one defines the beginning of life on their legality of abortion stance.

As mentioned earlier, of particular importance in abortion attitude formation are the social influences that might factor into the creation of that attitude. For example, Cochran et al. (1996) and Merton & Rossi (1968), as well as the authors of the study, hypothesized that many students' religious beliefs would be associated with their abortion attitudes. As expected, students who participated in church activities frequently were more likely to disapprove of abortion. On the same note, students who considered themselves to be moderately to very religious disapproved of abortion at greater rates than students who were slightly not religious. Moreover, as a person reported less religious involvement, so too increased their pro-choice outlook. Accordingly, as a person pursues a religious faith, they will probably adopt its beliefs and its teachings, including the sanctity of life, which will become an important normative reference group for the individual.

Further review of the data revealed that familial and friendship influence was minimal. However, the one occurrence where these influences may operate is when they have had or know of someone who has had an abortion and was supportive of the decision. Under these conditions, respondents were significantly more pro-choice than those who did not know someone or were not supportive of the abortion. These findings would support our original contention that individuals might become more pro-choice as a result of having to deal with cognitive dissonance of someone they know having an abortion. Given an individual would be supportive of a valued friend

FIGURE 1
Proposed Model of the Potential Influencers of an Abortion Decision.



in times of need, this commitment might actually run counter to an originally held stance on abortion and dissonance would arise. A potential method to reduce that dissonance would be to change one's outlook on abortion; therefore, these individuals would reflect higher pro-choice scores, as evidenced in this study.

Although no significant difference existed between respondents who had abortions, this situation was most probably due to only 3.5% (13 of 290) of the entire sample having had an abortion, making the sample sizes too lopsided for analysis. This condition was only aggravated because the experimenters failed to solicit female responses only to the question. Future efforts should be aimed at isolating the gender status to females for having had an abortion on held values. A word of caution is appropriate. Although this study attempted to determine factors associated with attitude formation that could be theoretically linked to causation, we recognize that the results are generally descriptive in nature and not causal. Our efforts are made from an intense desire to examine this area of research from theoretical perspectives rather than simply reporting percentages and numbers, as is more often the case. While experimental approaches to this issue will be difficult, a continual convergence of data on theory will assist in developing a coherent model of attitudinal change in American values concerning abortion. Longitudinal studies of individuals might reveal attitude changes more directly as some may become more or less religious, more or less conservative, etc. This approach can only aid understanding in these complex issues. Another difficulty in the study resulted from the need to run one-way ANOVAs, because of lopsided cell sizes; this approach could not determine interaction effects, probably increasing experimentation error.

A final summary suggests that a primary factor in determining abortion attitudes seems theoretically rooted in how one defines the start of life. Accordingly, we present a preliminary attribution model of influences associated with abortion choices (**Figure 1**). Pro-Life individuals view life as beginning at conception; whereas, Pro-Choice respondents define life as beginning at birth. In accordance with the regression model (see Table 5) and directly supporting the authors' theoretical reasoning, an individual who knew someone and supported their decision to have an abortion responded in a more pro-choice fashion. Conversely, the impact of religion is apparent by the contribution that Religious Influence and Religious Attendance has on the Pro-Choice score. Specifically, individuals who reported stronger religious influence and attend worship more regularly were much less pro-choice. On the other hand, Pro-life advocates report religious influences as having higher impact on their abortion attitudes than pro-choice advocates. Furthermore, self-admitted liberals report greater pro-choice views than self-admitted conservatives do, which explains why Democrats report higher pro-choice views than Republicans do.

Together, three major influences seem to theoretically impact abortion attitudes. First, how one conceptualizes the "beginning of life" directly impacts their pro-choice/pro-life viewpoint. Second, religious practice seems to suggest that individuals will be far more likely to view "life as beginning at conception." Third, the knowledge and support of an individual who has undergone an abortion seems to attenuate a pro-life stance, allowing the individual to take on more pro-choice views. Most other significant factors seem to result logically from these influences stated above. Although an experimental approach to abortion attitudes has proved arduous, we have attempted to provide a theoretically derived, correlation-supported attribution model of abortion attitude formation. Future research should focus more on the exact causal relationships between these factors, which should result in a more precise model than that found in this study.

APPENDIX A SURVEY OF STUDENT ATTITUDES TOWARDS ABORTION

SECTION 1: ABORTION OPINIONS

This section deals with your attitudes on abortion. Please choose the answer that best describes your opinions and fill in the appropriate circle on your answer sheet.

Strongly Disagree = 1 Disagree = 2 Neutral = 3 Agree = 4 Strongly Agree = 5

1. Life begins at conception.

1 2 3 4 5

2. Life begins at birth.

1 2 3 4 5

3. I want children in the future.

1 2 3 4 5

4. I might abort a fetus I did not intend to create.

1 2 3 4 5

5. I always use birth control.

1 2 3 4 5

6. I could be a responsible parent if I had a child now.

1 2 3 4 5

7. Abortion should be legal in all situations.

1 2 3 4 5

8. Abortion should be illegal in all situations.

1 2 3 4 5

Strongly Disagree = 1 Disagree = 2 Neutral = 3 Agree = 4 Strongly Agree = 5

9. Abortion should be legal in the cases of rape or incest.

1 2 3 4 5

10. Abortion should be legal if the mother's life or long-term health is at risk.

1 2 3 4 5

11. Abortion should be legal if the fetus has a birth defect.

1 2 3 4 5

12. Abortion should be legal if the parents cannot afford the baby.

1 2 3 4 5

13. Abortion should be legal if the parents do not want that particular sex of the child.

1 2 3 4 5

14. Abortion should be legal if the parents do not want the child.

1 2 3 4 5

15. Abortion is morally wrong.

1 2 3 4 5

16. Women should make the decision for or against abortion since it is their bodies.

1 2 3 4 5

17. Men and women should have equal influence regarding abortion.

1 2 3 4 5

18. Abortion is murder.

1 2 3 4 5

Strongly Disagree = 1 Disagree = 2 Neutral = 3 Agree = 4 Strongly Agree = 5

19. I am Pro-Choice.

1 2 3 4 5

20. I am Pro-Life.

1 2 3 4 5

21. My religious beliefs influence my opinions regarding abortion.

1 2 3 4 5

22. I am influenced by family members' opinions about abortion.

1 2 3 4 5

23. I am influenced by friends' opinions about abortion.

1 2 3 4 5

SECTION 2: OTHER INFLUENCES AND DEMOGRAPHICS

This section deals with other factors that may influence opinions on abortion. Please continue to fill in the circle that best describes you.

24. My sex is:

Female = 1 Male = 2

25. My sexual orientation is:

Heterosexual = 1 Homosexual = 2 Bisexual = 3 Transsexual = 4

26. I have had sexual intercourse.

Yes = 1 No = 2

27. I have children.

Yes = 1 No = 2

28. I had an abortion.

Yes = 1 No = 2

29. I know someone who has had an abortion.

Yes = 1 No = 2

30. Did/Do you support him or her in the decision?

Yes = 1 No = 2 This question does not apply to me. = 3

31. Choose the religious group you affiliate with.

Buddhist = 1 Muslim = 5
Catholic = 2 Protestant = 6
Hindi = 3 None = 7
Jewish = 4 Other = 8

32. How often do you attend activities at a place of worship in one month?

Everyday = 1
Over once per week = 2
Once a week = 3
Once or Twice per month = 4
Only on holidays and occasions = 5
I never go to a place of worship = 6

33. Rate how religious you are:

Very religious = 1
Moderately religious = 2
Slightly religious = 3
Not religious = 4

34. I identify most with:

Liberals = 1 Conservatives = 2 Moderates = 3 Extremists = 4

35. I identify most with:

Democrats = 1 Republicans = 2 Independents = 3 Other = 4

36. Ethnic Background:

Anglo-American/Caucasian = 1 African American = 4
Hispanic American = 2 Asian American = 5
Native American = 3 Other = 6

37. What region of the United States are you originally from?

Northwest = 1 Northeast = 4
Midwest = 2 Southeast = 5
Southwest = 3 I am not originally from the U.S. = 6

38. Marital Status

Never Married = 1 Divorced = 4
Married = 2 Widowed = 5
Separated = 3

39. Choose your age group.

18–20 = 1

21–23 = 2

24–26 = 3

27–29 = 4

30– and up = 5

40. Choose your College Status.

Freshman = 1

Sophomore = 2

Junior = 3

Senior = 4

Graduate Student = 5

NOTE

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