The Peer Pressure Hypothesis for Adolescent Cigarette Smoking - A Sociometric Examination*

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James S. Coleman has characterized "the group" as the "most powerful agent in the teenager's life."¹ A number of investigators have related this phenomenon to cigarette smoking and concluded that it is the peer group which is primary in spreading smoking behavior among young people. Others contend that it is peer group pressure which initiates the practice of smoking. Most interesting in this regard is the large number of studies which have ignored peer group influence completely in their treatment of cigarette smoking among young people. Merki² reported that at least seven major studies conducted in the past eleven years have completely ignored this factor.

One of the first studies to consider the influence of conforming pressures in the initiation of cigarette smoking was conducted by Barret³ in 1962. He reported that among his sample of Canadian thirteen-to-fifteen year-olds, 24.1 per cent said group conformity was their reason for beginning to smoke. Salber, et. al.,⁴,⁵ Haynes et. al.,⁶ Bergen and Olsen⁷ and Jones et. al.,⁸ all reported survey results which indicated that peer group membership was the most significant reason for smoking. Hobbs⁹ and

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Michelson\textsuperscript{10} both describe peer pressure as the major influence initiating smoking behavior. Jensen and Thompson\textsuperscript{11} reported that peer pressure also determined the amount of cigarette smoking. All of these studies arrived at their conclusions by asking questions about why people smoked. However, there are weaknesses in this approach. For example, Zagona and Lawrence\textsuperscript{12} have reported that the more a person smokes, the more he is likely to blame someone else for the cause of his smoking. Those who had stopped smoking blamed others less often for having started. No one has investigated the relationship of cigarette smoking to peer group membership by studying the actual composition of the group.

**Methodology:**

As part of the ongoing work of the University of Illinois Anti-Smoking Education Study, a sub-study was developed to determine the nature and extent of the relationship between cigarette smoking and friendship groups without actually asking the subjects if most of their friends smoked or not. Instead, sociometric indices were used to determine group conformity.

The ninth grade (580 students) of one junior high school was designated as the study population and a random sample of twenty female non-smokers, twenty female smokers, twenty male non-
smokers and twenty male smokers was selected. Smoking behavior had previously been determined by means of a questionnaire which was part of the larger study.

Peer group membership was determined by a two-item sociometric questionnaire administered in the course of a regular guidance class. The two questions were: Who are your five best friends? and, Who are the five people you spend the most time with?

Instructions to the students included a request to provide five names in response to each question. Students were asked to report the full names of those selected, and if the person(s) named in their responses were not in the ninth grade at the study school, they were asked to include this fact and indicate which school they attended. In addition, students were told that spelling was unimportant but that they should try to provide five names for each question. Those who were absent on the day of the initial administration completed the form during the next guidance class they attended. Sociometric scores were derived for the eighty randomly selected subjects and not for the total ninth grade student body. However, to obtain mutual choice data, it was necessary to survey the entire ninth grade. Since smoking behavior data had been collected in the larger study from all schools in the county,
it was possible to determine smoking behavior for all those whose names appeared in the questionnaire responses.

Results:

Data previously gathered, was used to determine if the eighty subjects chose friends with the same smoking habits. Similarly, to consider the significance of mutual choices, the smoking habits of those friends chosen by the subjects, who reciprocated the friendship choice, were also examined. Results are presented in Table 1.

(TABLE I ABOUT HERE)

The response to the question, "Who are your five best friends?" showed a significant relationship (\(<.01\)) between the smoking habits of both male and female subjects and their best friends (Table 1A). In each instance, smokers tended to choose smokers and non-smokers chose non-smokers. This difference was most pronounced among the females, with non-smokers failing to pick a single smoker as a best friend. The mutual choice analysis (Table 1B) also showed a strong affinity between the smoking habits of the subjects and those of their friends who reciprocated the friendship selection.

Tables 1C and 1D summarize the responses to the question, "Who are the five people you spend the most time with?" Best friends and mutual choices again indicated a definite pre-
ference for persons of similar smoking habits. Both male and female smokers chose a significantly greater number of smokers than non-smokers. Similarly, non-smokers spent most of their free time with non-smokers. As with the previous question, female non-smokers did not choose a single smoker to spend most time with. Smoking behavior did not appear to be as important in friendship selection for the boys as it did for the girls.

An indication of the relative popularity of smokers and non-smokers was gained by counting the number of students who selected each study subject as one of their five best friends. Male smokers were selected seventy-four times and non-smokers seventy-eight times. Female smokers were selected forty-six times, while female non-smokers were selected sixty-seven times. Smoking did not appear to affect the popularity of boys, but girls who smoke were less popular than girls who did not smoke.

Summary and Discussion:

The friendship patterns of eighty subjects, forty smokers and forty non-smokers, were examined to determine conformity of smoking behavior within each group. For both smokers and non-smokers, male and female, a significant relationship (κ.01) existed between smoking behavior and friendship choice. This tendency toward homogeneity was most pronounced for female non-
smokers who were a mutually exclusive group in their friendship selections. These findings, using indirect sociometric techniques, confirm earlier findings using direct questions about friends smoking behavior. These findings also indicate, especially for female non-smokers, that the degree of conformity within peer groups is even greater than originally realized.

These results, however, do not indicate why these students began to smoke, all they suggest is that once a smoker, one is likely to have friends who also smoke. It is possible that some students begin to smoke because of pressure from their peers, but something had to start the first person smoking. It is suggested that peer pressure is supportive of smoking or non-smoking behavior but that other factors, possibly psychological in nature, are primarily involved in the initiation of the habit. However, there is presently little clear evidence to support or refute this contention.

Irrespective of the complex of factors involved in the initiation of the smoking habit, the phenomenon of peer group pressure deserves careful study when considering ways to retain students in the non-smoking category.

In examining peer group pressure in its social context, it is noted that as societies progress from primitive to modern, the boundaries between the age grades of adolescence and adulthood
become less formalized and more diffuse. At the same time, there appears to be an increase in the common identification and articulation of the adolescent age grades. In other words, a "functional age grade segregation"\(^{13}\) has replaced the more formal separation of adults and youth that formerly existed. Smith\(^{14}\), Linton\(^{15}\), Cohen\(^{16}\), Pearson\(^{17}\) and Parsons\(^{18}\) have all made reference to this characteristic. This "age grade segregation" involves such things as strong group solidarity, the concealing of certain behaviors from adults, a degree of introversion and a breakdown in lines of communication with the adult world. Some have labeled this the sub-culture of youth. Simmel has referred to it as "the sociology of intimate relations."\(^{19}\)

This phenomenon is strongest in the high school years. Gottlieb and Ramsey\(^{20}\) suggested that the influencing forces of adult society vary over time. They proposed a paradigm to illustrate this point, showing that a child is most strongly influenced by adults but as he grows older, this influence decreases while peer influence increases. Peer influence reaches its peak during the high school period. Towards the end of high school and during college and graduate school, the influence of adult society, as a source of cultural values and expectations is re-established. Discussing the period of vigorous youth conformity, Riesman\(^{21}\) has suggested that it is possibly preparatory for the compulsive con-
formity that is characteristic of the adult world.

The most extensive research to date concerning this trend is presented by Coleman in his study of 8,000 American youth. He pointed out that this phenomenon existed in all the samples he studied and indicated that it was becoming stronger in the modern, middle-class suburban areas.\textsuperscript{22} This involved withdrawal from the social forces of the adult world and protection through an isolating shell of secrecy. The end result was an obstacle to the controls of adult society. Communication broke down and conflict arose. As Coleman pointed out, "...these young people speak a different language." And what seems to be more relevant to the functional age grade segregation hypothesis, "the language they speak is becoming more and more different" and difficult for adults to understand.\textsuperscript{23}

A number of reasons for this have been suggested. With industrialization, there has been a dramatic alteration in where the socialization of the young takes place. They are no longer needed to assist in the home. Now the school constitutes almost the entire community for the adolescent. Through exposure to mass media communications, adolescents are now socially sophisticated at an earlier age. It appears that the adolescent is looking to his peers, rather than adults, for approval, admiration and respect. It is the peer group that acts as his important reference group, his
"significant other."

Perhaps the function of the peer group is to aid the adolescent in his emancipation from the family and to provide support during this cleavage. The peer group appears to act as a buffer against the adult world and prepares adolescents for roles within the adult world. It is as if the young adult adjusts to his new role in a "safe" environment—his peer group. In support of this idea, Rivlin\textsuperscript{24} has reported that involvement in peer group activities led to self-confidence and a more favorable self-concept among the persons he studied.

Age graded peer groups appear to be a universal form of human grouping.

Their functions are numerous and undoubtedly important in the process of socialization. Their influences are clear, especially as they relate to activities like cigarette smoking, which for the younger age groups, stand on the border line of acceptability. Just how can these powerful social forces be harnessed for educational outcomes? How can the larger society begin to break down age-grade segregation and re-establish communication? Can attitudes towards peer group behavior, on the part of school officials, effectively modify group behavior? What initiated the forces which determined the make-up of the group? These and many similar questions remain futile areas for investigation.
REFERENCES


23. Ibid.

### TABLE I

Smoking Among Peer Groups

<table>
<thead>
<tr>
<th>Choices by</th>
<th>Smokers</th>
<th>Non-Smokers</th>
<th>Smokers</th>
<th>Non-Smokers</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Best friends</td>
<td>63.00</td>
<td>31.00</td>
<td>48.00</td>
<td>35.00</td>
</tr>
<tr>
<td>Smokers</td>
<td>20.00</td>
<td>65.00</td>
<td>0.00</td>
<td>96.00</td>
</tr>
<tr>
<td>Phi-Coefficient</td>
<td>.411</td>
<td>.641</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Who are your five best friends?)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| B: Mutual choices | 27.00   | 8.00        | 20.00   | 7.00        |
| Smokers           | 8.00    | 26.00       | 0.00    | 40.00       |
| Phi Coefficient   | .507    | .761        |         |             |
| P                 | <.001   | <.001       |         |             |
| (Who are the five people you spend the most time with?) |

| C. Best friends   | 63.00   | 19.00       | 57.00   | 18.00       |
| Smokers           | 20.00   | 61.00       | 0.00    | 82.00       |
| Phi Coefficient   | .509    | .776        |         |             |
| P                 | <.001   | <.001       |         |             |

| D. Mutual choices | 18.00   | 9.00        | 17.00   | 8.00        |
| Smokers           | 8.00    | 16.00       | 0.00    | 32.00       |
| Phi Coefficient   | .294    | .699        |         |             |
| P                 | <.005   | <.001       |         |             |