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## ABSTRACT

Smokers are increasingly stigmatized in our society. Pressures to limit public smoking have mounted, and there is evidence of discrimination against smokers in the workplace. This study examined how current smokers, former smokers, and nonsmokers were differentially characterized by students drawn from a suburban high school and college. Students evaluated current smokers far more harshly on a number of personality dimensions, including intelligence, creativity, and independence. Participants' evaluations of former smokers fell between those of current smokers and nonsmokers, suggesting that cessation alleviates some, but not all, of the stigma associated with this behavior. Male and female current smokers were viewed similarly by students, and students who were smokers themselves expressed somewhat less critical attitudes of current smokers than students who were nonsmokers. (Contains 45 references and 6 tables.) (Author)

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The vilification of smokers: students' perceptions  
of current smokers, former smokers, and nonsmokers.

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Abstract

Smokers are increasingly stigmatized in our society. Pressures to limit public smoking have mounted, and there is evidence of discrimination against smokers in the workplace. This study examined how current smokers, former smokers, and nonsmokers were differentially characterized by students drawn from a suburban high school and college. Students evaluated current smokers far more harshly on a number of personality dimensions, including intelligence, creativity, and independence. Participants' evaluations of former smokers fell between those of current smokers and nonsmokers, suggesting that cessation alleviates some, but not all, of the stigma associated with this behavior. Male and female current smokers were viewed similarly by students, students who were smokers themselves expressed somewhat less critical attitudes of current smokers than students who were nonsmokers.

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## INTRODUCTION

Cigarette smoking is regarded by many to be the single most preventable cause of death in the United States. It is estimated that 21% of women and 24% of men engage in this behavior, despite abundant evidence establishing cigarette smoking as harmful to health. Specifically, cigarettes are responsible for more deaths than AIDS, alcohol, drug abuse, automobile accidents, and fires combined (Garfinkel, 1997). Nationwide medical care costs associated with smoking-related illnesses have been estimated by the Center for Disease Control and Prevention to be more than 50 billion dollars annually. In addition, the value of lost earnings and loss of productivity due to smoking-related health complications is estimated to be at least another 47 billion dollars a year (TTURC, 2001). Ironically, despite a myriad of programs disclosing this information to the public (currently, states spend over a 37 billion dollars a year on anti-smoking campaigns), among young people, this trend is increasing. Smoking prevalence among adolescents has risen dramatically since 1990, with more than 6,000 young people trying their first cigarette each day (TTURC, 2001). Among those, at least half are expected to become regular tobacco users. Current smoking among high school students increased from 20% in 1991 to 36% in 1997 – an increase of almost 30% in just 6 years (TTURC, 2001).

This situation seems even more dire given the fact that older adults are becoming more condemning of smokers, and overt discrimination against those who smoke is increasingly sanctioned. Negative stereotypes about smokers are so pervasive that widespread negative attitudes are definitely translating into disadvantages for the smoker. Within the business world, studies have found that potential customers or clients are offended by having to walk through or inhale smoke. Therefore, many managers have instituted smoking bans for their employees, claiming the smokers blighted their companies' image (Chaudhary, 1997). Locations such as schools, cars, and work have all been regulated in some way by anti-smoking statutes. In addition, it has been found that business managers who smoke were rated worse than their nonsmoking counterparts on tests of leadership qualities, relationships with coworkers, empowering, delegating, and candor (Chaudhary, 1997).

Outside of the public policy realm, how prominent are these attitudes within society? Extensive empirical evidence suggests that overall, smokers are perceived in a much more negative way on a variety of dimensions than are their nonsmoking counterparts. Bleda and Sandman (1977) performed one of the initial studies examining smoker perception within society. They reasoned that because affective responses to a stimulus typically influence evaluative behaviors of this stimulus, smoking behavior, which has very highly publicized negative health connotations, would have a negative effect on interpersonal attraction. They executed this study by selecting a confederate from the military, the population being sampled, who acted as a nonsmoker, a courteous smoker, and a discourteous smoker. After observing the behavior of the confederate, the subjects were given the Byrne Interpersonal Judgment Scale (1971), which allowed the subject to evaluate the confederate in terms of characteristics such as intelligence, desirability as a work partner, likeability, generosity, and politeness. The subjects' affinity toward the consumption of cigarettes and their own personal smoking habits were then assessed. It was found that nonsmokers did not discriminate between courteous and discourteous smokers, but they did discriminate between smoking and nonsmoking

confederates. They rated the nonsmoker significantly more positively than they did the two smokers, viewing both smokers as being less considerate than the nonsmoker. Military personnel identified as "smokers" made a sharp distinction between the types of smokers, rating the courteous smoker much higher than the discourteous smoker. However, they still rated the nonsmoker as the most courteous out of all cases. Interestingly, the subject that actually smoked during their experiment session did not discriminate between the courteous and discourteous smoker.

This same pattern of results was obtained for the attraction responses toward the subject and also the affective state of the subject. Specifically, a more positive response was elicited by the nonsmoker when in the presence of a fellow nonsmoker, whereas the response of a smoker was dependent upon the behavior of the confederate smoker at the particular time.

Dermer and Jacobsen (1986) also documented the existence of a public bias against smokers within society. In this study, college students were given a picture of a person either holding or not holding a cigarette and asked to rate this person on a series of characteristics including consideration, impulsiveness, sociability, maturity, health, intelligence, and sexiness. After assessing the photograph, the subjects were asked about their personal smoking habits through a questionnaire. The entire sample was divided into segments, and only the first segment yielded results similar to those obtained by Bleda and Sandman's research. Specifically, four of the six smokers presented in this experiment were perceived more negatively, and thus were markedly disadvantaged by their smoking status. Participants' own smoking status had no effect on their perceptions of smoking.

Though the overall effect in the Dermer & Jacobsen (1986) study was the same as in the Bleda & Sandman (1977) study, some particularly interesting extensions of the earlier work emerged. For example, the male smoker was rated as the most masculine out of all of the cases. Perhaps because of the risks associated with smoking, this behavior reflected the masculine ideal that exists in society. Consistent with this notion is the finding that out of all of the hypothetical cases, females were rated most negatively, and thus were the most socially disadvantaged by their smoking status. Although these results were compelling, they could not be replicated with other subsamples, and therefore their reliability could not be established. In addition to this problem with the experiment, there was a potential confound arising from the method of sampling. A convenience sample at an airport was used and the authors reported that about 15% of people approached to participate declined the researchers' offer. Conceivably those 15% included many individuals who had an exceptionally unbiased opinion of smokers, and would therefore rate them as highly as nonsmokers; this could have significantly affected the outcome. However, it is unclear whether potential participants' refusal would correlate with tolerance of smoking, so this may not be a serious issue.

Other historical experimental approaches to observing smoker stigma revealed the same general results as these researchers did. Bleda and Bleda (1978) observed the behavior of participants when a confederate, smoking or refraining from smoking, sat 12 inches from them in a shopping mall. The majority of the participants who sat beside the confederate left the bench when the confederate started to smoke. Polivy, Hachete, and Bycio (1979) also examined college students' perceptions of smokers, through the presentation of photographs, and obtained results consistent with prior research;

nonsmokers rated other nonsmokers most positively along all of the dimensions, while rating smokers most negatively.

Carll (1978) also performed an experiment where college students were presented with photographs of smoking and nonsmoking individuals. Here, unlike in prior research, nonsmokers did not rate smokers most negatively along the positive dimensions. Instead, the only significant result was that smokers rated the hypothetical smokers most positively out of all of the cases. Conceivably, these differences in results between Carll's (1978) and Dermer & Jacobsen's (1986) studies could be due to the time difference between the executions of these two studies. During the past few decades, massive legislative changes regarding smoking have been passed, from taxes on cigarettes to locations where smoking is allowed, and therefore, this may have pushed the overall societal attitude toward this behavior in the negative direction.

Additional studies have confirmed that smokers and nonsmokers are perceived as being different in personality. Srebro, Hodges, Authier, & Chambliss (1999) found that smokers are perceived as less mature than nonsmokers. Hines, Fretz, & Nollen (1998) found that nonsmokers perceive smokers as less healthy, less desirable as a date, less attractive while smoking, less sexy, less feminine, less masculine, less conventional, and less self-confident. In addition, they also found that nonsmokers believed that smokers were less sensible.

Clearly, when examining these more recent studies examining perceptions of smoking, a progression can be seen. In the Bleda & Sandman (1977) study, smokers were perceived as more masculine while in the Hines et al. (1998) study, smokers were perceived as less masculine than nonsmokers by nonsmokers. Perhaps this shift in the findings reflects an overall societal shift in the perception of smokers, possibly due to the increase in information currently available on the health risks resulting from smoking.

Although there is considerable basis for assuming that when compared to nonsmokers, smokers in the present study will express more positive views of smokers in general, it is possible that their membership in this increasingly ostracized minority may have the opposite effect on their attitudes. Studies have found that members of other minority groups subject to discrimination often internalize the negative reactions of those around them (Clark & Clark, 1958; Newcomb & Hartley, 1958). Smokers may similarly assimilate widespread negative messages about their own habit and as a result become quite critical of fellow smokers. For instance, smokers in one study perceived other smokers as less secure, intelligent, physically fit, energized, confident, and alert than their nonsmoking counterparts (Srebro et al., 1999). The current study provides a comparison of nonsmokers' and smokers' perceptions, in order to assess whether the trend suggested by Srebro, et al. is continuing.

Where do critical attitudes toward smokers originate? Is discrimination becoming more pronounced? Although a succession of studies have documented that ratings of smokers are tainted by negative bias, the perplexing trend of increasing cigarette use continues among adolescents. Apparently, despite the fact that both adolescents and adults rate smokers more negatively than nonsmokers, many see becoming a smoker as very appealing. Jones and Carroll (1998) provided evidence for the notion that while smoking in isolation is viewed negatively, smoking in a social context may be viewed quite positively.



Jones & Carroll (1998) presented 40 female college students with video presentations of females engaging in stereotypical females behavior either smoking or not smoking a cigarette. The researchers believed that because the women would be able to see the context of the female's behavior rather than just a one-dimensional portrayal of her, the subjects would be more prone to rate a female smoker favorably along a variety of dimensions such as being liberated and independent. The subjects were divided into two groups; one group saw a female talk on the phone for 10 minutes, light up a cigarette, and then proceed to read a book for 50 seconds, while the second group saw the same scene with the cigarette scene omitted. It is important to note that the female was presented as attractive, expressive, and engaging to the subjects. After presented with one of these two scenes, subjects were given a "Health Habits" questionnaire, which consisted of questions addressing possible perceptions of the smokers and nonsmokers presented in the video. The researchers, after analyzing the results of the surveys, concluded that the females viewing these scenarios, regardless of smoking status, rated the smoking female more positively along most of the dimensions presented than the nonsmoking female. The researchers believed that this scenario turned out in this way because of the context in which the female was presented. Unlike before, the subjects received large amounts of dynamic information about the person they were supposed to rate. Specifically, the subjects observed the target's social interactions with others, as well as her physical appearance, gestures, and attitudes. Therefore, the subject could base their perceptions on a much more wide variety of factors than subjects in other experiments, who were not presented with videotaped footage of their hypothetical case.

Arguably, however, there are other factors that contributed to their anomalous results. For one thing, the sample where the effect was found, teenage girls, may hold different views and beliefs about smoking because of their sex role. For example, Van Roosmalen & McDaniel (1992) and Sorensen & Pechacek (1987) have found that when compared with males, females are less likely to perceive the benefits of quitting, and are more concerned about weight gain and job pressures related to quitting. In addition, females are more susceptible to such influences as smoking peers (Chassin et al., 1986; Hover & Gaffney, 1988), smoke more in response to stress, and smoke more in social and emotional situations than do males (Zuckerman, Ball, & Black, 1990). It may be that the sex of the smoker significantly influences peoples' perceptions. The present study examines this possibility by using both a male and female target smoker.

What exactly gives rise to hostility between smokers and nonsmokers and smokers and their own behavior? Some researchers believe that an "anti-smoking" schema exists in many nonsmokers, which biases their attitudes toward smokers (Litz, Payne, & Colletti, 1987). The concept of an antismoking schema may help to explain why the treatment of smokers by nonsmokers may be importantly different from the treatment of other stigmatized groups by the majority. Research has suggested that ingroup / outgroup evaluative differences tend to be associated with enhanced ratings of the ingroup rather than devaluing of the outgroup (Brewer, 1979).

In contrast with this general trend, in several studies smokers are rated not only significantly less favorably than nonsmokers, but also significantly lower than the scale midpoint as well. Cigarette smoking seems to represent an exception to the general rule of increased tolerance within our society.

A very important detail to note about all of this research is the age group of the sample being utilized in the experiments. In all of these studies reviewed thus far, the samples from 18 to 25 years of age, and with one exception, all of the participants were college undergraduates. About 50% of college smokers reported having been asked to not smoke at least once within the past year in various locations (Campbell, Svenson, & Jarvis, 1993). A study by Srebro et al. (1999) found that the overall view of college age smokers was generally negative, a reflection of the larger negative attitude toward smokers in general. Nonsmoking college students also believed that smoking would lead to negative consequences, such as appearing less attractive or feeling sick (Grube, Mcbree, & Morgan, 1986). In addition, college students also have found smokers to be less desirable to be in a close relationship with, such as being a roommate, a date, or a future spouse (Hines, 1996).

Since it is well documented that by college age, critical attitudes toward smokers predominate, it would be valuable to assess whether such criticism is found at earlier developmental periods. Because smoking typically begins in junior high school and high school, the attitudes of these students are particularly relevant. A few studies have used a younger, adolescent sample. Anderson, Shah, & Julliard (2002) examined the perceptions of and attitudes toward cigarette smoking by junior high school students. They also wanted to examine who exactly helped to formulate students' impressions of smokers and what kind of familial influence shaped these impressions. The research was conducted by administering a survey addressing these issues to students who visited the nurse's office. The researchers found that only 2% of the sample reported that they were smokers and more than half of the entire sample credited their parents with teaching them not to smoke. However, it is interesting to note that the majority of these parents were smokers themselves. Overall, subjects had negative views of smoking; specifically, 90% of the students recognized the habit as harmful to their health.

While this study implies that adolescents' attitudes mirror those of the larger adult population, it is important to note that the sample size of smokers was very small. In addition, there are a few problems with the way the sample was obtained. One problem is that only students who had a reason to go to the nurse's office were actually given the questionnaire. Perhaps more health-conscious students went to the nurse's office, yielding a non-representative sample. Less health-conscious students may have expressed more positive attitudes toward smoking and may have smoked at higher rates. Lastly, it is possible that the individual data collection method used here may have introduced concerns about confidentiality, reducing candid responding.

Douglas, Allen, Arian, Crawford, Headen, Spigner, Tassler, & Ureda (2001) also examined younger adolescents' perceptions of smokers. Specifically, they wanted to identify the actual images that teenagers have about smoking, smokers and nonsmokers. They did this by examining the data gathered by the Tobacco Control Network (TCN). The Tobacco Control Network (TCN) was a committee formed by the Centers for Disease Control (CDC), which funded a series of collaborative studies to examine aspects of adolescent smoking and were executed by the TCN. The goal of the CDC was to supplement the existing quantitative and epidemiological data concerning teen smoking by collecting qualitative data on important teen issues, including sociocultural, ecological (social environment at home and at school) and policy factors. These individual groups located in many areas of the country combined to form the TCN and thus it reflects a

very thorough overview of the entire teen population. The researchers simply analyzed specific questions and statistics that were contained within the actual questionnaire. The results obtained paralleled those from previous studies. Adolescents, overall, whether smokers or nonsmokers, felt that not only the physical characteristics of smoking were negative (smell, taste, etc.) but also that the smokers themselves had negative qualities. The most interesting findings that emerged from this study were gender and ethnicity differences. Although the general perceptions of smokers were negative, the degree to which the teenagers condemned smokers based on their habit varied across the dimensions being examined. For example, smokers' pride was seen as more acceptable and justified by African American adolescents than those with other ethnicities. The link between smoking and drug use was seen as stronger for African American and Hispanic adolescents, while drinking and smoking were more associated with white and Native American groups. Unlike in the past study, the sample used was obtained more randomly, and therefore provided a more ethnically and economically equal balance and sample.

A few other notable differences have emerged in studies between high school and college smokers, further establishing age as an important factor in smoking research. Adolescents who experimented with cigarette smoking often did so because they associated smoking with toughness, sociability, precociousness, and extraversion (Imperto & Mitchell, 1986; Hundleby, 1987) and wanted to project an image associated with these characteristics. However, college student smokers perceived smoking to be relaxing (Hodges et al., 1999) as did older adult regular smokers (Chassin, Presson, & Sherman, 1990; Clausen, 1987; Gilbert, 1979), and as a means of relieving stress (Gilbert, 1979; Clausen, 1987; Chassin et al., 1990). Adult smokers have also been found to be less socially connected and more depressed (Glassman, Helzer, Covey, Cottler, Stettner, Tipp, & Johnson, 1988; Anda et al., 1990; Glassman et al., 1990; Hemenway, Solnick, & Colditz, 1993; Stein, Newcomb, & Bentler, 1996), possibly utilizing cigarettes as a form of self-medication (Gilbert, 1979; Clausen, 1987).

As mentioned earlier, several studies have firmly established the existence of smoker bias in experiments utilizing photographs. Weir (1967), Carll (1978), Delaney (1978), and Polivy, Hackett, & Bycio (1979) all presented various groups of subjects with photographs of smoking and nonsmoking people, and in each of these studies, smokers were rated the most negatively out of all the hypothetical cases, the results were very different.

### PRESENT STUDY

The goal of the present study is to examine and clarify attitudes toward smoking behavior and the people that engage in this behavior. This study will extend previous research in three respects: First, it will assess the generality of previous findings by including both an adolescent and adult sample; secondly, it will explore whether smoking cessation reverses the negative social stigma associated with smoking; finally, it will examine whether a smoker's gender influences the magnitude of social stigma directed against the smoker. The subjects in this study will be presented with four hypothetical situations – that of male smoker, a female smoker, nonsmoker, and former smoker – and asked to rate these cases along many descriptive dimensions.

The sample chosen for this study included both high school and college students. This was done in order to explore developmental differences within in the sample.



Because college students may have more crystallized, reasoned ideals, their attitudes may be different from those of their younger peers. The high school sample selected was drawn from a suburban, middle socio-economic population, similar in background to the college students sampled. There is a higher probability that the high school students, because of socio-economic level, will attend college. This reduces the risk of confounding across high school and college samples.

This research will also assess attitudes and perceptions of former smokers as well. This is important because the former smoker hypothetical case will provide an interesting clue as to whether the smoker stigma is eliminated after the smoking behavior ceases. Past research has not explored this issue. Also, there is an indication that perceptions of smoking behavior differ dependent upon personal smoking habits; Hines et al. (1998) and Grube et al. (1986) found that occasional and former smokers' perceptions of smokers often fall in between those of nonsmokers and regular smokers' perceptions.

In addition, other studies have found that regular smokers' perceptions of smoking are typically less negative than that of nonsmokers (Clark, 1978; Dawley, Fleischer, & Dawley, 1985; Grube et al., 1986; Hines, 1996; Hines et al., 1998). Smokers perceived there to be social support for smoking (Grube et al., 1986) and more positive (or less negative) social and physiological consequences of smoking than did other smoking status groups (Clark, 1978; Grube et al., 1978; Dawley et al., 1985; Hines et al., 1998).

## METHOD

### Participants

Respondents were 215 college students from a small liberal arts college from a suburban area in the Northeast United States and 110 high school students attending a public school in the same area. The sample included 172 female and 153 male students. College students, with mean age of 19.32, were enrolled in introductory and upper level psychology courses, and high school students, with a mean age of 16.94, were enrolled in health education classes were administered the anonymous survey during class meetings.

### Survey Instrument

The survey consisted of 200 items pertaining to current and previous personal smoking habits, motivations for smoking and not smoking, and perceptions of smokers and nonsmokers, as well as those who quit. Additionally, a personality inventory and self-esteem scale were included.

Perceptions of male smokers, female smokers, nonsmokers and smokers who had quit were assessed through eight five-point Likert-format items (1=extremely low, 2=somewhat low, 3=neutral, 4=somewhat high, 5=extremely high). Participants were asked to describe their impression of an average student in each of these four categories along the following dimensions: intelligence, hostility, judgment, artistic creativity, independence, conscientiousness, ambition, and consideration.

### Procedure

The survey was distributed and collected by the course instructor for both the college and high school samples. It was administered during regularly scheduled class periods. No time restrictions were indicated.

## RESULTS

### How prevalent is smoking among adolescents and young adults?

Analyses revealed variable patterns of tobacco use across the adolescent and young adult populations sampled. Specifically, 17.4% of high school students and 28.3% of college students surveyed engaged in smoking behavior classified as habitual and regular. Among these segments, sex differences were also identified. Of the female students surveyed, 22.4% were regular smokers. Of the male students surveyed, 23.0% were regular smokers.

### **Perceptions of Male and Female Smokers, Nonsmokers, and Former Smokers and Generalized Smoking Behavior**

Directionally adjusted items were totaled to create summary character ratings each of the four hypothetical cases (male smoker, female smoker, nonsmoker, and former smoker). High scores indicate high levels of socially valued qualities. In order to determine if differences exist among perceptions of current male and female smokers, nonsmokers, and former smokers, paired sample *t*-tests were performed on character ratings of the four hypothetical target cases representing these groups. Significant differences were found among all the targets, with  $p < .001$ , except the male and female smokers.

Nonsmokers were rated most favorably among these categorizations. Table 1 summarizes the character ratings of the four targets, and Table 2 reveals the results of the within-subject *t*-tests. Further analysis revealed similar results regardless of the participants' gender, smoking status, and developmental level (high school versus college).

Table 1: Mean ratings of generalized perceptions of hypothetical targets among 217 high school and college students.

Perceptions	Mean	Standard Deviation
Nonsmoker	26.93	5.01
Former Smoker	25.73	3.96
Male smoker	20.16	4.26
Female smoker	19.89	4.22

Table 2. Within-subject *t*-test results of comparisons of character ratings of four hypothetical cases among 217 high school and college students.

Perceptions	<i>t</i>	<i>df</i>	<i>p</i>
Nonsmoker vs. Male smoker	16.07	315	.001
Nonsmoker vs. Female smoker	16.85	320	.001
Nonsmoker vs. Former smoker	5.06	318	.001
Former smoker vs. Male smoker	16.25	313	.001
Former smoker vs. Female smoker	17.18	320	.001
Male smoker vs. Female Smoker	1.60	317	ns

Multivariate ANOVA (gender x participant smoking status x developmental period) performed on the 4 hypothetical cases revealed no significant developmental period main effects. In addition, neither smoking status by gender nor smoking status by developmental period effects was obtained. Scores on three of the four hypothetical cases were found to be significantly different for smokers and nonsmokers. Specifically, smokers viewed the hypothetical male smoker significantly more favorably than nonsmokers did (smokers:  $x=22.20$ ,  $sd=3.04$ ,  $n=76$ ; nonsmokers:  $x=19.51$ ,  $sd=4.39$ ,  $n=222$ ;  $F=10.16$ ,  $df=1/298$ ,  $p<.05$ ). Smokers also viewed the hypothetical female smoker significantly more favorably than the nonsmokers did (smokers:  $x=21.96$ ,  $sd=3.25$ ,  $n=76$ ; nonsmokers:  $x=19.31$ ,  $sd=4.25$ ,  $n=222$ ;  $F=14.18$ ,  $df=1/298$ ,  $p<.01$ ). However, nonsmokers viewed the hypothetical nonsmoker more favorably than the smokers did (nonsmokers:  $x=27.79$ ,  $sd=4.82$ ,  $n=222$ ; smokers:  $x=24.96$ ,  $sd=4.99$ ,  $n=76$ ;  $F=8.60$ ,  $df=1/298$ ,  $p<.01$ ).

Only two hypothetical cases, the nonsmoker and former smoker, significantly differentiated between male (nonsmoker:  $x=20.51$ ,  $sd=4.16$ ,  $n=136$ ) and female ( $x=19.94$ ,  $sd=4.32$ ,  $n=162$ ;  $F=6.33$ ,  $1/298$ ,  $df=$ ,  $p<.05$ ; former smoker:  $x=20.51$ ,  $sd=4.16$ ,  $n=136$ ) and female ( $x=19.94$ ,  $sd=4.32$ ,  $n=162$ ;  $F=6.32$ ,  $1/298$ ,  $df=$ ,  $p<.05$ ) respondents. One significant two-way interaction emerged on summary ratings of the hypothetical nonsmoker. Female high school students rated the nonsmoker case higher than the other three participant groups on this item ( $F=7.54$ ,  $df=1/298$ ,  $p<.01$ ) (Table 3).

In addition to the hypothetical cases, impressions of the prevalence of smoking and expectations of typical behavior towards smokers were assessed through MANOVA. Specifically, respondents were asked whether they thought the majority of students within their respective schools were smokers and also if they thought smokers were discriminated against by other students, teachers, and employers. This analysis revealed no significant interactions among sex, developmental period, and smoking status on any of the dimensions examined.

Table 3. Significant two-way interaction results based on a MANOVA (sex x developmental period) for the nonsmoker hypothetical case.

	High School	College
Male	$x = 43.10$ $sd = 5.69$ $n = 40$	$x = 42.17$ $sd = 4.10$ $n = 24$
Female	$x = 45.86$ $sd = 5.72$ $n=59$	$x = 42.41$ $sd = 4.55$ $n = 81$

A comparison of ratings of nonsmokers, former smokers, and current smokers on individual characteristics.

Within subject t-test comparisons revealed that nonsmokers were viewed more positively than both current and former smokers on the individual personality traits. Former smokers were evaluated less negatively than current smokers on most characteristics.

Table 4

	Male Smoker		Nonsmoker		T	df	P
	x	SD	x	SD			
Intelligence	2.71	0.81	3.87	0.85	16.53	323	.001
Judgment	3.59	0.89	3.43	0.84	6.94	322	.001
Conscientiousness	3.69	0.92	3.40	0.90	15.25	322	.001
Considerate	3.59	0.86	3.34	0.85	15.13	323	.001
Ambitious	3.64	0.87	3.34	0.83	15.86	323	.001
Artistic Creativity	3.02	0.71	3.14	0.74	5.53	323	.001
Hostility	3.07	0.84	2.84	0.77	1.86	323	.001
Independence	3.47	0.86	3.24	0.88	7.00	322	.001

Table 5

	Female Smoker		Nonsmoker		t	df	p
	x	SD	x	SD			
Intelligence	2.61	0.84	3.87	0.85	17.88	329	0.001
Judgment	3.22	0.89	2.55	1.07	7.32	326	0.001
Conscientiousness	2.61	0.84	3.79	0.87	15.74	326	0.001
Considerate	2.57	0.84	3.74	0.88	1.01	329	0.001
Ambitious	2.56	0.82	3.82	0.89	1.11	329	0.001
Artistic Creativity	2.85	0.80	3.39	0.77	0.41	327	0.001
Hostility	3.03	0.85	2.82	1.01	0.37	328	0.013
Independence	2.92	0.95	3.65	0.91	0.57	328	0.001

Table 6: Mean ratings and paired-samples t-test results for ratings of the nonsmoker and former smoker hypothetical cases along the individual personality dimensions.

	Former Smoker		Nonsmoker		t	df	p
	x	SD	x	SD			
Intelligence	3.71	0.75	3.84	0.84	1.12	395	0.001
Judgment	2.82	1.05	2.75	1.14	1.24	393	ns
Conscientiousness	3.63	0.76	3.85	1.70	2.60	392	0.010
Considerate	3.54	0.79	3.73	0.88	2.13	328	0.001
Ambitious	3.66	0.80	3.76	0.86	2.48	394	0.019
Artistic Creativity	3.15	0.61	3.34	0.72	1.41	394	0.001
Hostility	3.01	0.83	2.78	0.98	1.86	394	0.001
Independence	3.53	0.80	3.64	0.88	2.43	395	0.020

## DISCUSSION

These findings strongly suggest that the decision to smoke severely handicaps an individual socially. The results of this study corroborate those obtained earlier by Hines et al. (1998), Srebro et al. (1999), Clark et al. (1992), Cooper & Kohn (1989), Dermer & Sandman (1977), Echabe et al. (1990), Goldstein (1991), Polivy et al. (1979), Malouff, Schutte, & Kenyon (1991); perceptions of smokers were consistently more negative than the perceptions of nonsmokers. Specifically, nonsmokers were rated more positively than smokers, whether male or female, on the following dimensions: intelligence, ambition, artistic creativity, conscientiousness, consideration, hostility, independence, and judgment. Other studies have supported these findings on the characteristics of intelligence (Cooper & Kohn, 1989; Dermer & Sandman, 1977; Clark, Klesges, & Neimeyer, 1992), consideration (Dermer & Jacobsen, 1986; Goldstein, 1991), and artistic creativity (Dermer & Jacobsen, 1986).

Because of all of the highly publicized health risks associated with this habit, it is perhaps not surprising that smokers are viewed as less intelligent, and as showing poor judgment. Research detailing the risks of second hand smoke may help to account for why smokers are seen as less considerate, less conscientious, and more hostile. The findings related to ambition and artistic creativity are a bit more puzzling. It is possible that since smoking has become increasingly rare among highly educated, economically successful adults, those who smoke are more apt to be seen as having attributes associated with the lower socioeconomic level.

This study established that those negative attitudes about smokers are not limited to adults. The adolescent sample expressed views paralleling the adult group, suggesting that individuals absorb critical ideas about those who smoke early on. This finding challenges the common assumption that high school students begin smoking because they and their peers view smokers positively. Both smokers and nonsmokers were found to rate others who smoke more negatively than others who do not smoke, although this was somewhat less pronounced among the high school students who regularly smoke. Future research should seek to clarify why high school students' negative news of smokers fail to offer more of a deterrent to their smoking.

For the high school and college samples combined, participants' smoking status was found to influence the ratings of the hypothetical cases. While overall nonsmokers were rated most positively out of all of the targets, smokers rated the smoking cases significantly more positively than did their nonsmoking counterparts. This is consistent with the empirically supported tendency for the ingroup to advance their own rating, instead of devaluing the outgroup. Smokers do not seem to see nonsmokers more negatively, but instead see themselves more positively because of their membership in this group.

Extending the work of previous researchers, this study indicates that those who quit smoking at least partially restore their image; while smoking cessation failed to reverse stigma, it did appear to alleviate it. On the majority of personal qualities assessed, former smokers were rated more positively than current smokers. Because quitting the smoking habit suggests that the individual acknowledges the health risks involved, and succeeds acting upon that knowledge, it makes sense that subjects would adjust their perception of a smoker in a more positive direction when the smoker quits. However, since the former smokers' reputation is not fully restored (nonsmokers are still



viewed more favorably), the implication is clearly that it is best for an individual to never start smoking. In addition, these findings suggest that in some social situations, it may be wise to conceal one's former use of cigarettes in order to avoid negative stereotyping.

It is interesting to note that there was one personality characteristic that appeared to be exempt from the salutary effects of smoking cessation, at least for females. On the hostility character item there was no significant difference between ratings of former smokers and current female smokers. This finding seems to be primarily due to the female smoker's being seen as less hostile than her male peer. Since a female smoker is initially seen as less hostile (presumably because women are generally perceived to be less aggressive), there is less opportunity for her smoking cessation to have a measurable impact on her perceived hostility. This result is consistent with the notion that a strong gender stereotype competes with the smoker stereotype for women. Although smokers are generally seen as more hostile than nonsmokers (Srebro et al., 1999), according to the present finding, this is far less true for females than male smokers. In society, there is a general and often overriding perception that women are more docile and passive. Perhaps this stereotype affected the subjects' reasoning and their perceptions of female smokers. Other evidence from this study suggested that a stereotyped thinking about gender might have pervaded the subjects' judgment; male smokers were seen as significantly more creative and independent than their female counterparts.

In trying to design more effective prevention programs, it may be useful to build upon existing anti-smoking norms among the student population. In this regard, it is especially interesting to note that the high school females comprised the subgroup showing the more pronounced tendency to evaluate nonsmokers positively. This could be due to many factors. In society, a masculine "ideal" exists, which precludes fear, dependence, and compliance with authority, and instead embraces courage, thrill-seeking, and autonomy. During the adolescent years, boys feel a pressure to manifest these characteristics or else face a threat to their sex-role identity. Because of the health risks associated with smoking behavior, the decision to smoke permits boys an opportunity to prove their fearlessness. Since underage smoking is illegal, it also provides a means of rebelling. In these ways, adolescent smoking embodies the "masculine" traits of bravery and deviance. As a consequence, high school females may perceive smoking as a somewhat masculine behavior, and subsequently reject the activity because of the social implications attached to violating sex-role norms.

Furthermore, it is more socially acceptable for females to admit to having fears and to be motivated to avoid encounters with feared stimuli. Therefore, the females are may find it more socially accepted to refrain from smoking as a means of avoiding illness and to share this motivation with others. For boys, however, being afraid runs counter to the masculine ideal. Females are also generally less challenging of adult authority, which may allow them to internalize and act upon anti-smoking health messages more completely. These ideas gain support from the finding that a higher percentage of males than females smoked both in the high school and college samples.

It is important to note that perhaps if the high school females' male peers realized the extent to which females perceived smokers negatively, the males might be dissuaded from starting to engage in this habit. Without being aware of it, boys who begin smoking in high school may face some dire social consequences (e.g., rejection by many females).

Future research should explore the possible benefits of disseminating information about high school girls' negative view of smoking.

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