

Perceptions of Peer Pressure, Peer Conformity Dispositions, and Self-Reported Behavior Among Adolescents

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Two samples of 6th to 12th graders from separate communities were given measures of peer conformity dispositions (willingness to accede to peer pressure), perceptions of peer pressure, and self-reported frequency of behavior concerning two major aspects of teenage life: peer involvement (degree of socializing with friends) and misconduct (drug/alcohol use, sexual intercourse, and minor delinquent behavior). Respondents perceived less peer pressure toward misconduct than peer involvement and also were comparatively less willing to follow peers in misconduct. Nevertheless, perceived peer pressure and conformity disposition accounted for more of the variance in self-reported misconduct than in self-reported peer involvement. Age differences were modest and varied among measures and samples. The samples also differed in the magnitude of perceived pressures and conformity dispositions as well as in the degree to which these variables were associated with self-reported behavior. The findings reveal a complexity in adolescent conformity that bears elaboration in future research.

Conformity to peers is often considered one of the hallmarks of adolescent behavior. Studies have shown that peer conformity dispositions (willingness to conform to peers) as well as conformity behavior increase from childhood through adolescence. Researchers, however, have tended to examine conformity dispositions without reference to conformity behavior, or behavior without reference to dispositions. There also has been little effort to ascertain the nature or extent of peer pressure adolescents actually perceive in their daily lives. These factors limit our understanding of how peer conformity influences adolescent development. To address these limitations, the present study examined the associations among peer conformity dispositions, perceptions of peer pressure, and self-reported behavior in two major facets of adolescents' lives: peer involvement and misconduct.

From the theoretical perspective of ego identity development

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Erikson (1968) and Newman and Newman (1976) both argue that the early adolescent's need for affiliation with a group of peers is manifested by conformity to group norms, and that the group itself is strengthened when members exert conformity pressures on each other. With the development of a more autonomous sense of self later in adolescence, strong group affiliation and conformity to peer group norms become less essential for a sense of well-being. Accordingly, one should find that peer conformity dispositions and conformity behavior increase from childhood through early or middle adolescence, then decline in later adolescence.

This inverted U-shaped age pattern has been found in several studies using an Asch (1951) procedure involving ambiguous judgments to examine conformity behavior in response to contrived peer pressure (Costanzo & Shaw, 1966; Iscoe, Williams, & Harvey, 1963). Others using this approach, however, have reported more erratic age trends (Berenda, 1950; Collins & Thomas, 1972). Furthermore, Hoving, Hamm, and Galvin (1969) found that when students were confronted with a similar task but less ambiguous judgments, conforming responses declined sharply between ages 8 and 14.

The inconsistent results among studies based on an Asch procedure suggested that age is not the only factor influencing conformity behavior among children and adolescents. This prompted some investigators to focus on age changes in peer conformity *dispositions* rather than conformity behavior. Berndt (1979) and Bixenstine, DeCorte, and Bixenstine (1976) asked students at selected grade levels from Grades 3 to 12 to indicate how they would respond to hypothetical situations in which close friends encouraged them to join in various antisocial activities. In both studies, conformity disposition increased from childhood to adolescence. In one study (Berndt, 1979)

willingness to conform diminished in the oldest grade, yielding an inverted U-shaped pattern similar to the age differences in conformity behavior reported by Costanzo and Shaw (1966). Peer pressure was more explicit in these studies than in the "Asch" experiments because peers were portrayed in the hypothetical situations not simply as participating in the antisocial activity but actively encouraging the respondent to join them.

In addition to antisocial situations, Berndt (1979) examined willingness to follow peers in prosocial and "neutral" behavior. Students in his samples were more willing to follow peers in neutral or prosocial than antisocial behavior, although developmental changes in conformity dispositions were more pronounced with regard to antisocial situations. Gender differences were significant only in response to antisocial pressures (with females less willing than males to follow peers). These findings corroborated earlier studies (Brittain, 1963; Larson, 1972), also based on hypothetical situations, in which adolescents' inclinations to follow peers' (or parents') advice varied significantly among situations.

The situational effects apparent in studies of peer conformity dispositions and conformity responses to contrived situations underscore the need to ascertain what sorts of peer pressure teenagers *actually* confront in their daily lives. In college students' retrospective accounts of high school peer pressure (Brown, 1982) and reports from teenagers themselves (Brown, Lohr, & McClenahan, in press), Brown found that perceptions of explicit peer pressures varied by "area" (i.e., peer social activities, relations with parents, conformity in appearance and attitudes, drug and alcohol use) and by age. Different developmental trajectories appeared for each area. Areas also differed in the strength of association between perceived peer pressure and corresponding personal attitudes or self-reported behavior. Unfortunately, the role of peer conformity dispositions in these associations remains unclear because Brown did not measure respondents' willingness to conform to various peer pressures.

In sum, developmental changes in peer conformity across adolescence seem to be mediated by the strength of peer conformity dispositions and the nature of conformity demands from peers (peer pressure). Because previous research has not assessed the interactions of these forces, the present study examined how variations across adolescence in peer conformity dispositions *and* perceptions of peer pressure corresponded with variations in self-reported behavior among two samples of 6th to 12th graders. The study focused on the two facets of adolescent behavior most commonly addressed in earlier investigations of conformity: peer involvement (patterns of social interaction with peers) and misconduct (drug use, minor delinquency, and sexual intercourse). Based on previous research and Erikson's (1968) ego identity theory, four hypotheses were formulated:

1. Peer conformity dispositions will differ by area, age, and gender. Specifically: (a) Adolescents will be more willing to conform to peer pressures involving neutral (peer involvement) than antisocial activities. (b) Conformity dispositions in both areas will follow an inverted U-shaped change with age. (c) Males will be more willing than females to conform to antisocial peer pressures.

2. Perceptions of peer pressure will differ by area, age, and

gender. Specifically: (a) Adolescents will perceive stronger peer pressure toward peer involvement than toward misconduct. (b) Perceived peer pressures in both areas will trace an inverted U-shaped change with age. (c) Males will report stronger peer pressure than females to engage in misconduct.

3. Peer conformity dispositions and perceived peer pressure will be significantly associated—independently and interactively—with self-reported behavior.

4. Associations between peer conformity dispositions or perceived peer pressures and self-reported behavior will be stronger among middle adolescents (age 15–16) than younger or older adolescents.

Method

Sample

The 1,027 students who participated in the study were drawn from one middle school (Grades 6–8) and one high school (Grades 9–12) in each of two Midwestern communities. Sample 1 ($n = 251$ males, 257 females) represented slightly over half of the 6th to 12th graders in a city of 9,500 people, which, although socioeconomically heterogeneous, maintained a "small town" atmosphere. Sample 2 ($n = 254$ males, 265 females) came from larger schools serving a predominantly working-class section of a major city (population 200,000). Both samples were predominantly Caucasian (98% of Sample 1, 93% of Sample 2). Respondents were selected by a stratified random sampling procedure (stratifying by grade, gender, and peer group affiliation). Of those selected, 88% ($n = 1,027$) successfully completed the questionnaire, 6% refused to participate or were denied permission by parents, 5% were not available on the testing days, and 1% completed unusable questionnaires.

Measures

The analyses drew upon three sets of scale scores: Willingness to conform to peers (conformity dispositions), perceived peer pressures, and self-reported behavior. Each set contained a scale measuring peer involvement and one measuring misconduct. The perceived misconduct pressure scale and self-reported misconduct scale each included a subscale of items more directly comparable to the misconduct conformity disposition scale. The derivation and scoring of scales are described below.

Conformity dispositions. Conformity dispositions were assessed by a measure developed by Berndt (1979), containing 20 hypothetical situations in which "a couple of your best friends" urge participation in a certain activity and the respondent is portrayed either as reluctant to join peers in the activity or as interested in doing something else. Ten situations involve antisocial behaviors, such as cheating, stealing, trespassing, and minor destruction of property. The others involve conflicts over choice of sports, entertainment activities, or eating places.

For each hypothetical situation respondents indicated what they would "really do"—accede to their friends' urgings and join them in the activity, or do something else—on a 6-point Likert scale ranging from being "absolutely sure" of nonconformity to being "absolutely sure" of conformity to peers. For a more detailed description of the instrument's derivation see Berndt (1979).

Each set of 10 items formed a separate scale. Respondents, thus, received a score for neutral as well as antisocial conformity dispositions. Scores were the mean of scale item responses. They ranged from 1.00 to 6.00, with 3.50 representing the breakpoint between a predominantly

nonconforming (lower scores) versus conforming disposition (higher scores).

Perceived peer pressure. The measure of adolescents' perceptions of peer pressure was derived empirically by asking a pilot group of teenagers to list peer pressures they or others their age encountered. Content analyses of responses indicated that peer pressures clustered in five areas: involvement in peer social activities (spending time with friends, going to parties, concerts, and school events, pursuing opposite-sex relationships, etc.), misconduct (drug and alcohol use, sexual intercourse, petty theft, vandalism, and minor delinquent activities), conformity to peer norms (in dress and grooming, musical preferences, etc.), involvement in school (academic and extra-curricular), and involvement with family. From the pilot lists an instrument was derived, piloted, and revised so as to allow calculation of a scale score in each area.¹

The resulting 53-item Peer Pressure Inventory (PPI), like Berndt's (1979) measure of peer conformity dispositions, focused on adolescents' perceptions of explicit peer pressures. Peer pressure was defined for respondents as "when people your own age encourage or urge you to *do* something or to *keep* from doing something else, no matter if you personally want to or not." Items were presented in semantic differential format; each contained a pair of statements representing polar opposite pressures (e.g., "be social, do things with other people" vs. "not be social, do things by yourself"; or "smoke marijuana" vs. "not smoke marijuana"). The 7-point response scale indicated the degree and direction of pressure respondents felt from friends: "a lot," "some," or "a little" pressure toward the statement on the left, "no pressure," or "a little," "some" or "a lot" of pressure toward the statement on the right. "Your friends" was stipulated to provide respondents with a concrete reference point.

Items for each scale were interspersed and counterbalanced (half had the statement representing pressure *toward* the domain on the left side; half had it on the right side). Scale scores, calculated after recoding items so that all were scored in the "positive" direction (toward the domain), represented the mean of scale item responses. Scores could range from -3.00 (strong negative pressures, i.e., against the area) to 3.00 (strong positive pressures), with 0.00 indicating either no pressure or a balance of positive and negative pressures.

To assess the instrument's validity, scale scores were compared among respondents identified by peers as members of three major adolescent peer groups: jocks, druggies, and loners. Because, theoretically, peer pressure is a means of enforcing peer group norms (Erikson, 1968; Newman & Newman, 1976), peer group differences in perceived peer pressures should reflect normative distinctions among the groups. Group differences corresponded to stereotypic differences in peer group norms and supported the validity of the PPI (for more details, see Clasen & Brown, 1985). For example, perceived pressure to go out for sports teams was highest among jocks, pressure to engage in misconduct was highest among druggies, and pressure toward peer involvement was lowest among loners.

The present study employed the PPI scales analogous to Berndt's (1979) measures of "neutral" conformity dispositions (perceived peer involvement pressure scale) and anti-social conformity dispositions (perceived misconduct pressure scale and anti-social pressure subscale).²

Self-reported behavior. A 28-item behavior checklist indicated how often in the past month respondents had engaged in or experienced a variety of activities or events.³ Responses were recorded on a 5-point scale: *never, once or twice, 3 or 4 times, pretty often or almost every day*. Scale items paralleled items on the corresponding PPI scale. Thus, regarding misconduct, respondents were asked how often (in the past month) they had smoked a cigarette, gotten drunk, had sexual intercourse, taken something that did not belong to them, and so on. Peer involvement items asked how often respondents had gone to a party,

gone to a movie or concert with friends, gone to the local video games arcade, and so on. Misconduct scale items were consistent across schools. Items concerning peer involvement differed slightly from school to school to reflect more accurately the peer social activities typical of each school.³ Scale and subscale scores, representing the mean of item responses, could range from 1.00 to 5.00; the higher the score, the more frequent the self-reported behavior.

Some have questioned the validity of self-report measures of adolescent drug use and delinquency (Reiss, 1975). In comparison to more objective measures (e.g., court records), however, self-report has proven to be equally if not more valid, especially (as in the present study) when the behaviors assessed rarely lead to contacts with authorities or court appearances (Gold, 1970; Jensen & Rojek, 1980). Self-reported frequency of misconduct among our respondents corresponded closely to data from a recent cross-national survey of high school seniors (Bachman, Johnston, & O'Malley, 1984) as well as a school-wide drinking survey (with anonymous responses) conducted by three juniors in the rural school a month prior to our data collection (see Table 1). These comparisons supported the self-reported misconduct scale's validity.

Social desirability and socioeconomic status. To determine whether any of the scales were subject to a socially desirable response set, respondents also were given the 13-item version of the Marlowe-Crowne measure of social desirability (Reynolds, 1982). To control for differences among respondents in socioeconomic status (SES), respondents indicated their parents' current occupation (or past occupation if no longer in work force). Responses were coded from 1 (*low*) to 7 (*high*) based on Hollingshead and Redlich's (1958) index of social positions.⁴ Interrater agreement (between two raters) on assignment of SES codes was 86%.

Procedure and Analyses

A self-report questionnaire containing the measures described above was administered by a member of the research staff to groups of students in an unused classroom during their study hall or free period. Except for 6th graders, each administration included a mix of students from different grades. To encourage honest responses, confidentiality was stressed and names were not recorded on the questionnaire.

Two forms of the questionnaire were administered. They differed in

¹ Each item contained a pair of polar opposite statements because adolescents indicated that peer pressure could be toward or against a given activity (e.g., "to drink" or "to not drink"). An 80-item version of the instrument was piloted on a sample of one hundred and one 12- to 18-year-olds. Fifteen other adolescents evaluated the instrument's language and format. Items that had limited response variation (those for which most pilot respondents checked "no pressure") and failed to load on any scale were dropped. Minor changes in wording were made to clarify confusing or ambiguous items. Scale reliabilities for the pilot sample (discounting items that were dropped), based on Cronbach's (1951) alpha, were .77 for peer involvement and .89 for misconduct.

² A copy of the PPI and/or a list of the self-reported behavior scale items is available upon request from the first author.

³ Three months prior to administering the questionnaire, we interviewed 10 males and 10 females in each grade, who had been nominated by classmates as leaders of the various "crowds" that constituted the school's peer culture. These students named the typical after-school and weekend activities of each crowd. Their responses indicated the range of peer involvements and the most common social activities. These were incorporated, along with items concerning misconduct and school and family involvement, into the self-reported behavior index.

⁴ Information about parents' education and income was not included in the SES measure because a large number of respondents (especially in middle school) marked these questions "don't know."

the order in which instruments were presented and order of presentation of items within the conformity and perceived pressure measures. Because *t* tests revealed that none of the scale scores and only two items had significantly different mean scores (at $p < .025$) on the two forms, form of questionnaire was not included as a factor in any subsequent analyses.

Because of time constraints in administering the questionnaire to Sample 2 and because several Sample 1 respondents criticized several items on the conformity disposition scales, we shortened Berndt's (1979) measure to 15 items and dropped the Crowne-Marlowe scale from the Sample 2 questionnaire.⁵ In Sample 1, the abbreviated version of Berndt's scales had comparable internal consistency alpha's (within .04) and the same associations with other measures as the full scale scores. To enhance comparisons between samples, all analyses involving conformity dispositions were based on the abbreviated version of the scales for both samples.

The PPI was omitted from the 6th-graders' questionnaire because of time constraints and concerns (apparent in pilot testing) about their ability to comprehend the instrument. Sixth graders were included in analyses of the peer conformity scales, however, to facilitate comparisons with previous research. In addition to 6th graders, approximately 7% of 7th to 12th graders were excluded from analyses involving the PPI scales because they left at least one scale item blank or filled out the instrument improperly. Because of the large number of degrees of freedom for error in most analyses and the large number of analyses conducted, the significance level was set at .01 for all analyses.

Results

Scale Analyses

Table 2 presents each scale's mean score, standard deviation, internal consistency alpha (Cronbach, 1951), and correlations with SES and (for Sample 1) the shortened Marlowe-Crowne social desirability measure (SDES). Scale statistics were computed for each school separately so as not to obscure community- or age-related differences in the measures. The alpha's for both conformity disposition scales were almost exactly the same as the average split-half reliabilities Berndt (1979) reported. The scales' correlations with social desirability and SES were uniformly weak (below .30). The low negative correlations between social class and self-reported misconduct were consistent with previous studies of SES differences in self-reported drug use and delinquency (Braithwaite, 1981; Gold & Petronio, 1980). This further substantiated the self-report measure's validity.

Peer Conformity Dispositions

Hypothesis 1a was assessed by a 2 (sample) \times 7 (age) \times 2 (gender) \times 2 (scale score) analysis of variance (ANOVA), treating the conformity disposition scales as a repeated measure.⁶ There was a significant main effect for conformity disposition, $F(1, 958) = 472.00, p < .001$, indicating that, as predicted, respondents were more willing to follow peers in neutral (peer involvement) activities ($M = 3.75$) than antisocial (misconduct) situations ($M = 2.95$).

Age differences in each sample's mean scores on the conformity disposition scales are presented in Figure 1. There was a significant main effect in the ANOVA for age, $F(6, 958) = 3.03, p < .01$. Quadratic trend analyses performed on each scale score

Table 1
Self-Reported Frequency of Misconduct in Present Study's Versus Other Studies' Samples (Percentage Engaging in the Behavior At Least Once in Past Month)

Behavior	High school seniors					
	Sample 1		Sample 2		National Sample*	
	Males	Fe-males	Males	Fe-males	Males	Fe-males
Smoked a cigarette	16	32	32	42	27	33
Drank beer or liquor	67	82	87	85	74	63
Smoked marijuana	19	25	29	34	31	25
Used hard drugs	10	18	14	22	14	18
Stolen something	25	14	10	25	40	23
Vandalized something	24	7	15	22	18	7

Behavior	Students in Sample 1 high school	
	Sample 1 Respondents	All-school drinking survey
Drank beer or liquor		
Freshmen	41	34
Sophomores	58	38
Juniors	59	59
Seniors	75	77

* Figures for national sample are from Bachman et al. (1984; $N = 18,348$). For the last two items, figures in this sample are percentage engaging in the behavior at least once in the past year.

confirmed Hypothesis 1b: There was a significant, inverted U-shaped age trend for neutral conformity disposition scores, $F(1, 982) = 7.07, p < .01$, and for anti-social conformity disposition scores, $F(1, 986) = 7.53, p < .01$. When trend analyses were run separately by sample, however, quadratic trends were significant only in Sample 2.

The ANOVA displayed a significant main effect for gender $F(1, 958) = 13.37, p < .01$, and a Gender \times Type of Conformity interaction, $F(1, 958) = 45.80, p < .001$. Separate 2 (sample) \times 7 (age) \times 2 (gender) ANOVAs on each scale indicate that, as predicted in Hypothesis 1c, males ($M = 3.18$) were significantly

⁵ Berndt (1979) also administered a shortened version to his "Study 2" sample because of time constraints. He used the full scale scores in reporting results of his Study 1 and the abbreviated scores in analyses for Study 2. Unlike the present study, he did not compare the samples statistically because Study 2 was an extension rather than a replication of Study 1.

⁶ Initially, SES was added as a covariate in the analyses of peer conformity and PPI scale scores, and included as a variable in the regressions. SES was dropped from final analyses, however, because it reduced the n for analyses (because many respondents gave uncodeable responses to SES questions) and failed to alter any of the statistical relationships among variables. In a 2 (sample) \times 7 (age) \times 2 (gender) ANOVA on SES scores, age and gender were not significantly associated with SES, but SES was higher in Sample 1 than Sample 2 ($M = 4.89$ vs. 4.55), $F(1, 835) = 8.92, p < .01$. Sample differences in other variables were not affected by this SES difference.

Table 2
Scale Characteristics in Each Sample

Scale	Sample 1					Sample 2			
	<i>M</i>	<i>SD</i>	Alpha	Correlation with		<i>M</i>	<i>SD</i>	Alpha	Corr. SES
				SES	SDES				
Peer conformity disposition									
Neutral	3.83	0.88	.64	.04	-.04	3.68	0.88	.61	-.11
	3.81	0.82	.63	-.01	.01	3.68	0.83	.63	-.02
Anti-social	2.91	1.12	.83	-.08	-.23	2.92	1.00	.80	-.21
	3.06	1.16	.83	-.07	-.28	2.93	0.98	.77	.04
Perceived Pressures									
Peer involvement	0.92	0.75	.79	.21	-.03	0.83	0.70	.77	-.11
	0.83	0.73	.70	.01	-.22	0.91	0.61	.73	.17
Misconduct	-0.43	0.83	.81	-.10	-.09	-0.21	1.15	.91	-.17
	-0.11	0.97	.89	-.15	-.12	0.14	0.80	.81	-.07
Anti-social	-0.19	0.92	.60	-.02	-.12	-0.19	1.15	.71	-.20
	-0.08	0.96	.71	-.18	-.12	0.04	0.76	.50	-.07
Self-reported Behavior									
Peer involvement	3.03	0.73	.83	.05	.25	2.41	0.83	.78	-.15
	3.20	0.78	.80	-.03	-.08	2.81	0.70	.72	-.05
Misconduct	1.19	0.34	.80	-.24	-.03	1.47	0.61	.88	-.23
	1.48	0.68	.87	-.18	-.21	1.71	0.74	.86	-.16
Anti-social	1.41	0.57	.62	-.03	-.15	1.53	0.70	.71	-.22
	1.33	0.52	.62	-.16	-.17	1.41	0.60	.76	-.08

Note. For each scale, figures in first row are for middle-school Rs; figures in second row are for high school Rs. "Alpha" = internal consistency reliability alpha (Cronbach, 1951).

more inclined than females ($M = 2.74$) to follow peers in antisocial activities, $F(1, 965) = 45.74, p < .001$; gender differences in neutral conformity dispositions were not significant ($M = 3.72$ for males, 3.78 for females).

A significant Sample \times Type of Conformity interaction in the ANOVA, $F(1, 958) = 6.07, p < .01$, was examined by computing a Dunn-Bonferroni post-hoc comparison of interactions (Kirk, 1982). The comparison indicated that differences in conformity dispositions were stronger in Sample 1 than Sample 2, $t(958) = 2.74, p < .01$, largely because neutral peer conformity dispositions were stronger in Sample 1 ($M = 3.82$) than Sample 2 ($M = 3.68$).

Thus, in supporting Hypothesis 1, the analyses replicated the area, age, and gender differences in peer conformity dispositions reported by Berndt (1979): Peer conformity dispositions were stronger for neutral than antisocial situations; males were more willing than females to accede to antisocial peer pressures; and the strength of conformity dispositions traced an inverted U-shaped change with age. Additionally, the samples differed in the strength of neutral conformity dispositions and the strength of age trends in both conformity dispositions. Collectively, sample, age, gender, and interaction terms accounted for 2% of the variance in neutral conformity disposition and 6% in antisocial conformity disposition.

Perceived Peer Pressures

A 2 (sample) \times 7 (age) \times 2 (gender) \times 2 (scale score) ANOVA on the PPI scale scores (treating the scales as a repeated mea-

sure) exhibited a significant main effect for type of pressure, $F(1, 842) = 720.67, p < .001$. As predicted in Hypothesis 2a, respondents perceived more pressure from friends toward peer involvement ($M = 0.80$) than toward misconduct ($M = -0.11$). The negative mean score for misconduct indicated that, on balance, peer pressure was perceived as *against* misconduct; friends *discouraged* rather than encouraged participation in misconduct.

There also was a significant main effect for age, $F(6, 842) = 3.56, p < .01$, and an Age \times Type of Pressure interaction, $F(6, 842) = 3.56, p < .01$. Age differences in each sample's perceived pressure scores are presented in Figure 2. Hypothesis 2b predicted that perceived peer pressure would trace an inverted U-shaped change with age. Trend analyses indicated that age differences in perceived peer involvement pressures were consistent with the hypothesis but not statistically significant, $F(1, 871) = 3.65, ns$. Age differences in perceived misconduct pressure, however, displayed a significant *linear* trend, increasing with age (see Figure 2), $F(1, 866) = 18.62, p < .001$. The same age patterns appeared when trend analyses were performed on each sample separately.

Contrary to Hypothesis 2c, the genders did not differ in perceptions of peer involvement pressures ($M = 0.88$ for males vs. 0.92 for females) or misconduct pressures ($M = -0.08$ vs. -0.12). The ANOVA, however, did display a significant Sample \times Pressure Area interaction, $F(1, 842) = 7.77, p < .01$. A Dunn-Bonferroni post-hoc comparison indicated that differences in mean scores on the PPI scales were larger in Sam-

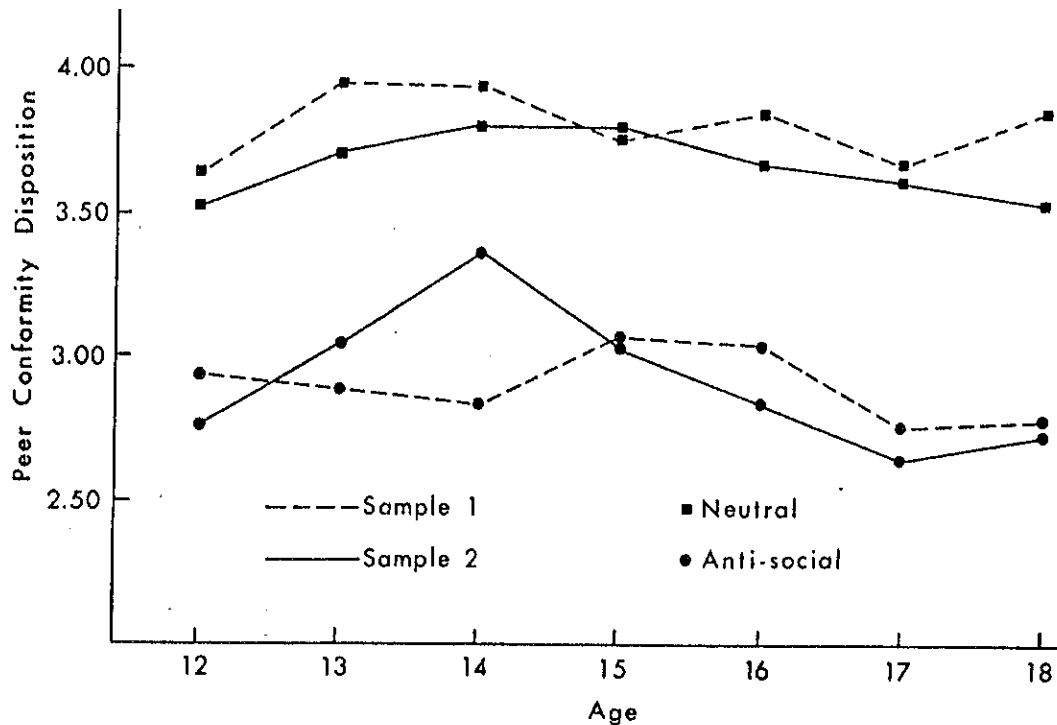


Figure 1. Mean scores by age and sample on peer conformity disposition scales. (Higher scores indicate greater conformity; the neutral point is 3.50).

ple 1 than Sample 2, $t(872) = 2.86, p < .01$, largely because perceived pressures were more clearly *against* misconduct in Sample 1 ($M = -0.23$) than Sample 2 ($M = 0.01$).

In a 2 (sample) \times 7 (age) \times 2 (gender) \times 2 (scale score) ANOVA comparing perceived peer involvement pressures to perceived antisocial pressures (the misconduct subscale score), the only significant effect was a main effect for pressure area, $F(1, 832) = 682.25, p < .001$. Perceived peer involvement pressures were significantly more positive (toward the domain) than antisocial peer pressures ($M = 0.90$ vs. -0.08). Age differences in antisocial pressures were inconsistent (see Figure 2), and gender and sample differences were not significant.

In sum, analyses supported Hypothesis 2a: Respondents perceived stronger pressures from friends toward peer involvement than misconduct. In fact, on balance, peer pressures were *against* misconduct. Perceived peer involvement pressures traced a weak, inverted U-shaped age trend consistent with Hypothesis 2b, but contrary to expectation, pressures toward misconduct steadily increased with age, and antisocial peer pressures displayed no clear age trend. Males and females did not differ significantly in perceptions of peer pressures. Pressures appeared similar in the two samples except that misconduct peer pressures were more clearly negative in Sample 1. Collectively, sample, age, gender, and interactions accounted for 1% of the variance in perceived peer involvement pressures, 5% in perceived misconduct pressures, and 2% in perceived antisocial pressures.

Associations Between Conformity Disposition, Perceived Peer Pressure, and Self-Reported Behavior

Hypotheses 3 and 4, predicting how peer conformity dispositions and perceived peer pressures would be associated with cor-

responding self-reported behavior, were examined in a series of regressions. Separate analyses were conducted on peer involvement scales, misconduct scales, and the antisocial behavior subscales. In each regression, sample was entered first, followed by age (dummy coded), gender, and the Age \times Gender interaction. Each other main and interaction effect was tested by adding it to a regression equation containing all other effects of the same or lower order. For example, the Conformity Disposition \times Perceived Peer Pressure interaction was tested by adding it last to a regression containing all main effects and all other two-way interactions between perceived pressures, conformity disposition, age, and gender. Data were pooled across samples because separate regressions in each sample indicated that most effects did not differ significantly between the two communities. The exceptions are important, however, and will be discussed after results of the "pooled data" regressions are presented. Results of the regressions are presented in Table 3. Three- and four-way interaction effects were omitted from the final regressions because none was significant.

There was considerable support for Hypothesis 3, which predicted that peer conformity dispositions and perceived peer pressures would be significantly associated—as independent and interactive effects—with self-reported behavior. The main effects of both variables were significant in all three analyses. Conformity disposition, however, explained substantially more the variance in self-reported misconduct (10%) and antisocial behavior (14%) than self-reported peer involvement (1%). Perceived peer pressures also explained more of the variance in self-reported misconduct (9%) than peer involvement (3%), but only a modest amount of the variance in antisocial behavior

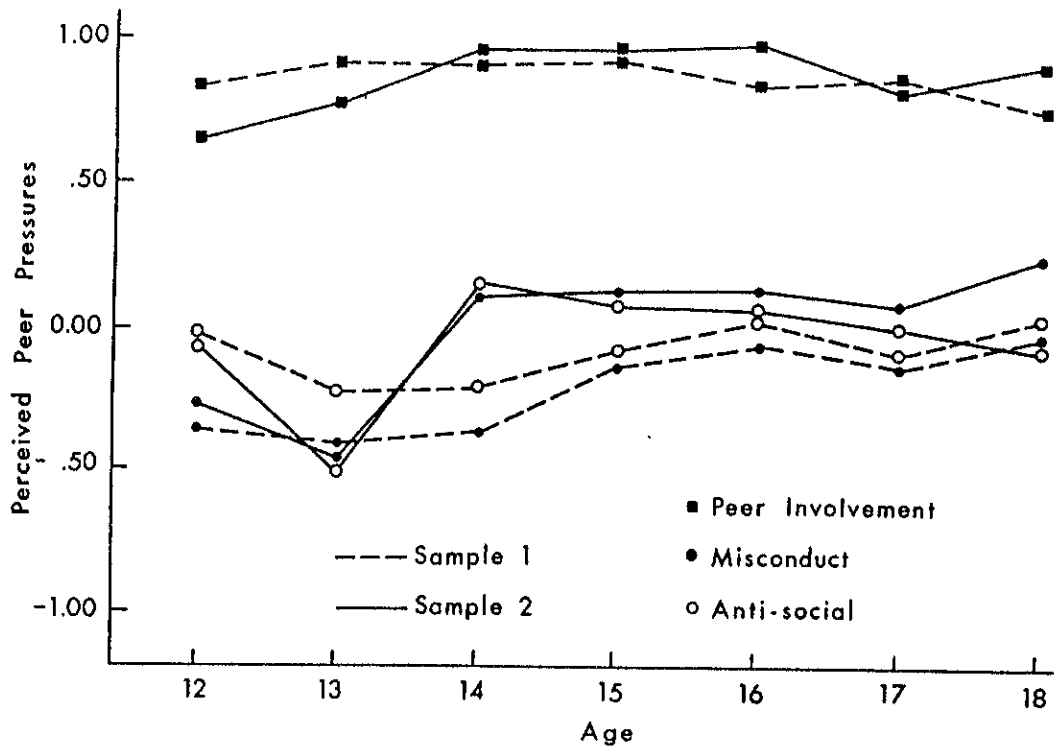


Figure 2. Mean scores by age and sample on perceived peer pressure scales. (A score above zero indicates that perceived peer pressures are predominantly *toward* the domain; a score below zero indicates that perceived pressures are predominantly *against* the domain).

(4%). The Peer Conformity Disposition \times Perceived Pressure interaction was significant in analyses of self-reported misconduct and antisocial behavior. This meant that associations between perceived peer pressures and self-reported behavior were stronger among those who were relatively willing to follow peers in antisocial behavior than those who resisted antisocial peer pressures. Contrary to prediction, the interaction was not significant with regard to self-reported peer involvement.

The regressions offered little support for Hypothesis 4; age did not appear to mediate the associations between peer conformity disposition or perceived pressures and self-reported behavior. The one significant interaction involving age, however, was consistent with the hypothesis: Perceived misconduct pressures correlated with self-reported misconduct more strongly among 15- and 16-year-olds ($r = .56$) than younger or older respondents ($r = .51$). Gender appeared as a significant mediating variable in two instances: The association between perceived pressures and self-reported peer involvement as well as the relation between conformity disposition and self-reported antisocial behavior was stronger among males than females.

Collectively, as main effects and in interaction with age, gender, and each other, peer conformity disposition and perceived peer pressures accounted for considerably more of the variance in self-reported misconduct (43%) and antisocial behavior (33%) than self-reported peer involvement (7%).

Sample differences in these patterns of association were examined by running the regressions in each sample separately and testing the significance of the difference (between samples)

in the beta weights of each effect (Cohen & Cohen, 1975). The samples differed significantly in the strength of association between perceived pressures and self-reported peer involvement, $t(796) = 2.59, p < .01$, and between perceived pressures and self-reported misconduct, $t(782) = 3.12, p < .01$. Differences approached significance in the degree of association between peer conformity disposition and self-reported antisocial behavior, $t(797) = 2.31, p < .025$, and between the Perceived Pressure \times Conformity Disposition interaction and self-reported misconduct, $t(752) = 2.33, p < .025$. In each case associations were stronger in Sample 2. In fact, the amount of variance in self-reported behavior accounted for by perceived pressures and peer conformity disposition was consistently higher in Sample 2 (9% vs. 5% for peer involvement, 48% vs. 38% for misconduct, 37% vs. 27% for antisocial behavior).

In sum, as predicted in Hypothesis 3, perceived peer pressures and peer conformity dispositions were significantly associated with self-reported frequency of peer involvement, misconduct, and (more specifically) antisocial behavior. Peer conformity disposition was not as strongly associated as perceived pressures with self-reported peer involvement, but equally if not more strongly related to self-perceived misconduct and antisocial behavior. Perceived pressures and conformity disposition had significant independent effects in each regression. In analyses of misconduct and antisocial behavior they also appeared to be mutually reinforcing: The higher one's willingness to conform to antisocial peer pressures, the stronger was the association between perceived pressures and self-reported misconduct and antisocial behavior.

Table 3
Summary of Regression Analyses

Effect	df of effect	Self-reported behavior (dependent variable)					
		Peer involvement		Misconduct		Antisocial	
		r^2	F	r^2	F	r^2	F
Sample	1	8	70.58***	4	37.59***	1	7.22**
Age, gender, and Age × Gender	13	7	5.14***	6	4.16***	6	4.18***
Peer conformity disposition	1	1	7.31**	10	138.58***	14	169.97***
Perceived peer pressures	1	4	40.15***	9	125.87***	3	41.07***
Conformity Disposition × Peer Pressures	1	0	0.41	6	97.06***	5	60.53***
Conformity disposition × Age	6	1	0.89	1	1.27	1	2.37*
Conformity Disposition × Gender	1	0	0.26	0	2.11	1	7.09**
Peer Pressures × Age	6	1	1.79	1	2.93**	0	0.82
Peer Pressures × Gender	1	1	6.69**	0	1.75	1	4.12*
Summary of effects (df)	—	19	7.37***	51	28.15***	38	17.23***
			(31,796)		(31,782)		(31,797)

Note. Figures in "summary of effects" row report adjusted R^2 and significance (F) of final regression equation. Statistics for each effect report change in R^2 (r^2) and significance test (F) when effect is added to the regression equation.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Analyses failed to support Hypothesis 4; neither age nor gender consistently mediated associations between peer conformity disposition, perceived pressures and self-reported behavior. There were, however, differences by sample and by type of behavior: Conformity disposition and perceived pressures were more strongly associated with self-reported misconduct and anti-social behavior than self-reported peer involvement. Associations also were stronger in Sample 2 than Sample 1.

Discussion

Our study focused on *explicit* peer pressures, pressures from friends of which respondents were consciously aware. Because more implicit forms of peer pressure were not included, the findings probably underestimate the strength of associations between peer pressures or conformity dispositions and adolescents' behavior. Despite this, the associations observed were substantial, which seems to emphasize the salience of peer pressures in the lives of these adolescents.

The inverted U-shaped age trends that emerged in analyses of peer conformity dispositions, although consistent with previous research (Berndt, 1979; Bixenstine et al., 1976) and developmental theory (Erikson, 1968); were comparatively weak. Unlike previous studies, our study examined year-by-year differences within a narrow age range. This permitted closer scrutiny of age differences, but also allowed developmental trends to be mitigated by cohort effects—the idiosyncratic characteristics of one age or grade level. Thus, developmental trends in peer conformity dispositions may not be as consistent across age or independent of external influences as previous research has implied.

Perceptions of peer pressures did not follow the predicted in-

verted U-shaped age trend. The steady increase with age in perceived pressures toward misconduct seemed to emphasize the socializing influence of peers (Hartup, 1983). Many of the behaviors encompassed in this scale (drinking, smoking, sexual activity) become legal, acceptable, and/or normative in adulthood. Jessor and Jessor (1977) have argued that age-related increases in rates of teenage drinking should not be construed as burgeoning deviance but viewed as adolescents' attempts to model adult behavior. Similarly, the increase with age in misconduct peer pressures may simply reflect peers' efforts to prepare adolescents for assuming adult roles. More importantly, however, the findings caution against assuming that peer pressures follow the same developmental trajectory as peer conformity dispositions, or that developmental changes will be consistent across different areas of peer pressure in adolescence.

The analyses replicated Berndt's (1979) finding that males were more willing than females to follow peers in antisocial behavior. In other facets of adolescent conformity, however, gender differences were not significant. This corresponded with Eagly's (1978) contention that gender differences in conformity have declined significantly in recent years. Because, however, Brown (1982; Brown et al., in press) reported differences between males and females in more specific areas of peer pressure, it is possible that subtle gender variations remain embedded in teenagers' conformity behavior.

Like Berndt (1979), we found that adolescents expressed more willingness to accede to peer socializing than antisocial pressures from friends. There also were significant differences in respondents' perceptions of peer pressures in these domains. Interpretations of the pressure area differences, however, must

bear in mind that PPI scale scores were based on the *direction* as well as magnitude of perceived peer pressures. Scores based on the magnitude alone (regardless of the direction that responses departed from "no pressure") showed substantially less difference between perceived peer involvement pressures ($M = 1.14$) and misconduct pressures ($M = 0.97$). In other words, perceived peer involvement pressures were predominantly positive (*toward* involvement); perceived misconduct pressures were more ambivalent and variable among respondents. Based on more indirect or inferential evidence of peer pressure, several researchers have argued that peers often prompt teenagers into drug use or delinquent behavior (Glynn, 1981; Huba & Bentler, 1980). Our findings support this possibility, but they also emphasize that peer pressure may be more "prosocial" than is often recognized, especially in early adolescence when friends are perceived as discouraging misconduct.

Respondents expressed more willingness to yield to peer socializing than antisocial pressures from friends. Yet, perceived pressures and peer conformity disposition accounted for considerably more of the variance in self-reported misconduct than self-reported peer involvement. The study's cross-sectional design does not permit causal inferences, but the findings suggest that peers wield more influence over teenagers' involvement in misconduct than over their participation in peer social activities. Interestingly, the relative size of effects for perceived pressures and conformity disposition was not consistent across domains of self-reported behavior. These findings caution against inferring adolescents' conformity behavior strictly from measures of conformity dispositions, or assuming levels of peer pressure based solely on observations of conformity behavior.

The fact that perceived pressures and peer conformity dispositions had significant independent effects in each regression supported our contention that they represent disparate sources of influence on teenage behavior. Furthermore, interactions between these forces appear to be complex. For example, there are two equally valid ways of articulating the interaction effect observed in regressions involving misconduct: The more pressure adolescents perceived from friends to engage in misconduct, the more frequent was their self-reported involvement in misconduct, especially among those with a relatively strong antisocial peer conformity disposition. Alternatively, the stronger that perceived pressures were against misconduct, the more adolescents reportedly refrained from misconduct, especially among those with a relatively strong antisocial peer conformity disposition. The implication is that because of the bidirectional nature of peer pressure, peers are potentially prosocial influences even in antisocial behavioral domains and among adolescents who are relatively receptive to antisocial peer pressure.

Although, for the most part, findings were consistent across the two samples, the significant sample differences that emerged should not be disregarded. The inverted U-shaped change with age in peer conformity dispositions that Berndt (1979) noted was replicated only among urban respondents (Sample 2). Berndt's samples also were drawn from urban areas—East coast communities encompassed by the "urban sprawl" extending from New York City to New Haven. The more homogeneous environment and greater opportunities for cross-age interaction that are characteristic of small towns (such as the environment

of Sample 1's students) may serve to dampen developmental differences in peer conformity dispositions. We also found that perceived pressures and conformity dispositions explained more of the variance in self-reported behavior among respondents residing in the large city (Sample 2) than those in the small town (Sample 1), even after controlling for sample differences in SES (see Footnote 6). It is conceivable that teenagers are more attentive to peer influences in a school or community so large that a substantial proportion of agemates remain strangers.

Our findings generally supported the conclusions of previous developmental studies of peer conformity, but they also suggested that perceived peer pressures and peer conformity dispositions are independent as well as interactive sources of influence on teenage behavior. Perceived pressures and conformity dispositions do not appear to follow the same developmental trajectory across adolescence, nor do they appear equally salient in different facets of teenagers' lives or among adolescents in different communities. Both factors, therefore, must be considered in order to comprehend peer conformity during the teenage years.

References

- Asch, S. E. (1951). Effects of group pressure upon the modification and distortion of judgment. In H. Guetzkow (Ed.), *Groups, leadership and men* (pp. 177-190). Pittsburgh, PA: Carnegie Press.
- Bachman, J. G., Johnston, L. D., & O'Malley, P. M. (1984). *Monitoring the future, 1982*. Ann Arbor, MI: Institute for Social Research, University of Michigan.
- Berenda, R. W. (1950). *The influence of the group on the judgments of children*. New York: Kings Crown Press.
- Berndt, T. J. (1979). Developmental changes in conformity to peers and parents. *Developmental Psychology, 15*, 606-616.
- Bixenstine, V. E., DeCorte, M. S., & Bixenstine, B. A. (1976). Conformity to peer-sponsored misconduct at four grade levels. *Developmental Psychology, 12*, 226-236.
- Braithwaite, J. (1981). The myth of social class and criminality reconsidered. *American Sociological Review, 46*, 36-57.
- Brittain, C. V. (1963). Adolescent choices and parent-peer cross-pressures. *American Sociological Review, 28*, 385-391.
- Brown, B. B. (1982). The extent and effects of peer pressure among high school students: A retrospective analysis. *Journal of Youth and Adolescence, 11*, 121-133.
- Brown, B. B., Lohr, M. J., & McClenahan, E. L. (in press). Early adolescents' perceptions of peer pressure. *Journal of Early Adolescence, 6*.
- Clasen, D. R., & Brown, B. B. (1985). The multidimensionality of peer pressure. *Journal of Youth and Adolescence, 14*, 451-468.
- Cohen, J., & Cohen, P. (1975). *Applied multiple regression/correlation analysis for the behavioral sciences*. Hillsdale, NJ: Erlbaum.
- Collins, J. K., & Thomas, N. T. (1972). Age and susceptibility to same-sex peer pressure. *British Journal of Educational Psychology, 42*, 83-85.
- Costanzo, P. R., & Shaw, M. E. (1966). Conformity as a function of age level. *Child Development, 37*, 967-975.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*, 297-334.
- Eagly, A. (1978). Sex differences in influencibility. *Psychological Bulletin, 85*, 86-116.
- Erikson, E. H. (1968). *Identity, youth and crisis*. New York: Norton.
- Glynn, T. J. (1981). From family to peer: A review of transitions of influence among drug-using youth. *Journal of Youth and Adolescence, 10*, 363-383.

- Gold, M. (1970). *Delinquency behavior in an American city*. Belmont, CA: Wadsworth.
- Gold, M., & Petronio, R. J. (1980). Delinquent behavior in adolescence. In J. Adelson (Ed.), *Handbook of adolescent psychology* (pp. 495-535). New York: Wiley.
- Hartup, W. W. (1983). Peer relations. In E. M. Heatherington (Ed.), P. H. Mussen (Series Ed.), *Handbook of child psychology (Vol. 4): Socialization, personality and social development* (pp. 103-196). New York: Wiley.
- Hollingshead, A. B., & Redlich, F. C. (1958). *Social class and mental illness*. New York: Wiley.
- Hoving, K. L., Hamm, N., & Galvin, P. (1969). Social influence as a function of stimulus ambiguity at three age levels. *Developmental Psychology, 1*, 631-636.
- Huba, G. J., & Bentler, P. M. (1980). The role of peer and adult models for drug taking at different stages in adolescence. *Journal of Youth and Adolescence, 9*, 449-465.
- Iscoc, I., Williams, M., & Harvey, J. (1963). Modifications of children's judgments by a simulated group technique: A normative developmental study. *Child Development, 34*, 963-978.
- Jessor, R., & Jessor, S. L. (1977). *Problem behavior and psychological development: A longitudinal study of youth*. New York: Academic.
- Jensen, G. F., & Rojek, D. G. (1980). *Delinquency: A sociological view*. Lexington, MA: Heath.
- Kirk, R. E. (1982). *Experimental design* (2nd ed.). Monterey, CA: Brooks/Cole.
- Larson, L. E. (1972). The influence of parents and peers during adolescence: The situation hypothesis revisited. *Journal of Marriage and the Family, 34*, 67-74.
- Newman, P. R., & Newman, B. M. (1976). Early adolescence and its conflict: Group identity vs. alienation. *Adolescence, 10*, 127-136.
- Reiss, A. J. (1975). Inappropriate theories and inadequate methods as policy players: Self-reported delinquency and the law. In N. J. Demerath, O. Larsen, & K. F. Schuessler (Eds.), *Social policy and sociology* (pp. 211-222). New York: Academic.
- Reynolds, W. M. (1982). Development of reliable and valid short forms of the Marlowe-Crowne Social Desirability Scale. *Journal of Clinical Psychology, 38*, 119-125.

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