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HOCKEY VIOLENCE: A TEST OF THE VIOLENT SUBCULTURE HYPOTHESIS*

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The fundamental tenet of the violent subculture hypothesis, in its generic form, is that violent behavior results from a set of proviolence values and attitudes. The present research was to test this hypothesis as an explanation of violence in Canadian amateur ice-hockey. Interviews with over 700 players and nonplayers yielded data on values and attitudes; self-reports of fighting and official records of major hockey penalties were used as measures of violent behavior. The results support the violent subculture hypothesis. Individuals who professed values and attitudes supportive of violence were significantly more violent than those who did not. The data do not support the *societal* version of the hypothesis, described by Wolfgang and Ferracuti and other theorists in the criminological tradition; values and attitudes were poor predictors of off-ice fighting and bore no relationship to social class. What the findings do point to is an *occupational* subculture, composed mainly of older players in highly competitive select and junior leagues, where professional criteria regarding the use of violence prevail. Compared to younger, house-league boys and to nonplayers, these performers endorsed values and attitudes of violence.

Since the early 1960's, a great deal of attention has been paid by scholars to apparent increases in interpersonal violence. Although the sociology of violence is still comparatively undeveloped, one attempted line of explanation, that emphasizing subcultural influences, has had considerable continuity. In almost all such research it is maintained that the basis of any subculture is a set or subset of values at variance with those of the parent culture. These values are assumed to govern, if not strictly to determine, members' attitudes and behavior.

As a descriptive term, "violent subculture" seems clear, and quickly catches attention. Its empirical status, however, is shaky. A fundamental test of any variant of the violent subculture hypothesis would require comparison of individual members' and nonmembers' values and attitudes regarding violence; heretofore, this has not been adequately done.

Ice hockey, rife with assaultive behavior, offers an appropriate setting for such work. In the present research, the violent subculture hypothesis was tested as an explanation of violence in Canadian amateur hockey.[1]

General Research on Violent Societal Subcultures

Perhaps the most representative, frequently cited, contemporary theoretical statement on violence emphasizing subcultures is that of Wolfgang and Ferracuti (1967).[2] They (1967:140–185)

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1. Assaults on the ice and, e.g., in the streets, are fundamentally the same. Both, though officially proscribed, are often seen as relatively "normal" in their respective social worlds. The chief difference seems to lie in how they are viewed outside these milieus. Street violence is "deviance," clearly, while illegal hockey violence traditionally has been viewed by many as a legitimate, or at least inevitable, "part of the game," though increasingly it too is being defined as a "social problem" (see Smith, 1975). In any case, the idea of violent subculture, though initially emerging from research on delinquent and criminal violence, has come to have a much wider scope. There is no sound reason why the hypothesis, in its broadest sense, should not be applied to hockey.

2. Patrick (1973:176) warns about transferring wholesale to other cultures theories and concepts of delinquency developed in the United States. The evidence is that many of these simply do not "work" for Glasgow street gangs (or English, for that matter), not altogether surprisingly in view of the important historical and structural differences in race, politics, economics and education between the countries. The

draw upon research on delinquency, crime, lower-class social structure and values, and also upon case studies of traditionally violent cultures, to develop the proposition that a high rate of interpersonal violence is the product of a subcultural value system which encourages its expression. In the subculture, violence is the expected response to a perceived challenge or insult—a jostle, a glance, a derogatory remark, the appearance of a weapon. Adherence to this norm is essential in acquiring and maintaining honor, especially for lower-class males between late adolescence and middle age, and especially when such challenges are associated with one's masculinity. Those who fail to conform are subject to peer sanctions ranging from indifference to disdain and ostracism.

Wolfgang and Ferracuti propose that verification of what they call the "subculture of violence" should not require proving that violence is the predominant theme, only that it is an important one. No subculture is completely at odds with the parent culture; culture and subculture always interlock to some degree. Also, although violence is transituational, if members engaged in it continuously, or everywhere, normal social functioning would be impossible. Most assaults take place in settings where there is easy access to weapons, where others ready for violence are present, and where precipitating situations are likely to arise—in short, where "normative standards" are most salient (also see Luckenbill, 1977). Their "subculture of violence" thesis would predict, for example, that violent hockey players would fight mainly on the ice, but also that they would fight elsewhere more than nonviolent performers or nonplayers (1967:114, 159).

The same authors (1967:153) state that a proper test of their theory requires *individual* data on values and attitudes, not merely inferences from other materials, as in their own work. Until now, only one study has done this. Ball-Rokeach (1973) presented data on values and attitudes toward interpersonal violence in a national sample of 1,429 America adults, and on value differences between 157 violent and 202 nonviolent inmates of a Michigan prison. The findings revealed almost no relationship, in either sample, between values and self-reported violent behavior, and only a weak relationship between attitudes regarding violence approval and behavior. The social class basis of the Wolfgang-Ferracuti proposition received scant confirmation: education and income were not associated with violent behavior in the national sample and only weakly associated with violence approval. These latter results basically replicated those of the 1968 President's Commission on the Causes and Prevention of Violence (Baker and Ball, 1969; Stark and McEvoy, 1970).

But the Ball-Rokeach research had two serious shortcomings. First, as Erlanger (1974b) has noted, the subset of values (from the Rokeach Value Survey) and their accompanying descriptors hypothesized to represent a "machismo" orientation are very general. Most seem only remotely connected to violence, and they certainly do not effectively get at the Wolfgang-Ferracuti conception of subcultural values as "normative standards" (1967:114). Second, the self-report-based violence index in the national study includes both assailant and victim experiences. Ball-Rokeach (1973:738) presents this as a strength, but it seems more likely a weakness. Respondents may have reported being "threatened or actually cut with a knife," for example, thus increasing their index scores yet themselves have been entirely nonviolent in the process. In addition, one could raise the usual questions about the validity of self-reports of violent behavior (Hagan, 1977:64–67).

One other study, by Erlanger (1974b)—a detailed reanalysis of the 1968 President's Commission data—can be said to constitute a partial test of the Wolfgang-Ferracuti thesis. It reconfirms the Commission's finding that there were no major differences in the approval of violence by respondents' education, income or race. No data on values were given, but new findings on peer

"subculture of violence" thesis, however, to take the best known representative of violent subculture theories, was built from the outset from cross-cultural materials and has been shown applicable in the Scottish context and in Sardinia (Ferracuti *et al.*, 1970). Furthermore, Wolfgang and Ferracuti (1967:155–158) state explicitly that examination of the thesis need not be confined to any one national or ethnic group, or to homicide, as opposed to nonlethal violence.

esteem and psychological correlates of fighting among black and white Milwaukee males were reported. Erlanger argued that subculture theory would predict a strong positive correlation between fighting and perceived peer esteem for low-income whites and blacks who were not poor, and a relatively strong negative correlation for whites who were not poor. He found, however, (after controlling for age, occupation and social desirability bias) that the correlations were close to zero or in the opposite directions from those hypothesized. He had also reasoned that respondents' "happiness" ought to be positively correlated with fighting, because there would be positive peer sanctions and an absence of guilt for violence in their subcultures, and that their "happiness" should be negatively correlated with fighting outside the subculture. But again the data were directly counter to theory. It was true, consistent with the subcultural view, that blacks fought more often than whites, that the poor fought more than those not poor, and that for low-income white and black men, fighting had a positive, although not statistically significant, effect on being "well-liked." In general, however, neither the research by Ball-Rokeach nor that by Erlanger—the two most direct tests of the thesis—confirmed the existence of a "subculture of violence" of the sort emphasized by Wolfgang and Ferracuti, or of any other type of violent subculture.

Work on what has come to be known as the "southern subculture of violence" has been more indirectly related to the violent subculture thesis. Research conducted by Hackney (1969), Gastil (1971), and Reed (1972) suggested that relatively high rates of interpersonal violence, especially homicide, in the American South were the result of family socialization. In the direct version of this thesis, such socialization produces a high rate of lethal violence. In the indirect version, it produces a high rate of gun ownership, which then produces a high rate of lethal violence. Loftin and Hill (1974) and Erlanger (1975), however, have pointed out methodological flaws in these studies which cast doubt upon the direct version. O'Connor and Lizotte (1977) have disputed the indirect version. Their survey data showed that growing up in the South did not affect the probability of owning a handgun as an adult. They concluded that although a regional subculture should not be ruled out as an important explanatory variable in both southern gun ownership and violence, the Hackney-Gastil-Reed thesis was at present incomplete and inadequate.

In two studies "adjunct" to their national survey, Blumenthal *et al.* (1972:62–66, 130–132) presented some limited data on the value-attitude-violent behavior relationship. In the first study, they compared the values of twenty-nine students arrested for having participated in a "street disturbance" with those of sixty-three college students in the national sample. Those arrested were relatively low in "retributive justice" and "self-defense" but were high on the value of "persons" as opposed to "property" and on "humanism" versus "materialism." They did not differ from college students as a whole in "kindness." The arrestees also ranked higher than the comparison group on the "violence for social change" attitude index. In short, they revealed a value and attitude pattern consistent with that of people who find violence for social change relatively justifiable. Blumenthal *et al.* caution, however, that they were not able to ascertain whether individual arrestees had actually engaged in violence.

In the second study, a random sample of fifty-two penitentiary inmates with varying histories of violent conduct reported less attitudinal support for social control violence (e.g., Should the police shoot to kill in handling disturbances?) and more support for social change violence (e.g., Is protest in which some people are killed necessary to produce changes?) than a matched sample from the national survey. The authors admitted they had no convincing explanation, but concluded that because prisoners' violent behavior had the same magnitude of correlation with both attitude indexes, violent behavior and attitudes were at least somehow related.

There is a melange of other empirical work more or less relevant to the violent subculture hypothesis: anthropological studies in which high rates of violence are attributed to cultural patterns (e.g., Kupferer and Humphrey, 1972; Langness, 1972); case studies of assaultive men, pro-

ducts purportedly of violent subcultures (e.g., Brown, 1975; Dietz, 1978; Toch, 1969); and, particularly pertinent, research on juvenile fighting gangs (the "conflict subculture"), such as those observed in Glasgow by Patrick (1973) and in the United States by Yablonsky (1962), Keiser (1969) and Horowitz and Schwartz (1975). In the latter groups, the ethos and practice of violence were central. Collective and individual statuses were based on members' willingness and ability to fight, often with guns and knives. Patrick (1973:195–196) concluded that all but one of the criteria for the "subculture of violence" described by Wolfgang and Ferracuti were met by the ferocious Glasgow slum boys with whom he mixed: deviant members were punished not by disdain or ostracism but by violence or the threat of it. Canadian fighting gangs have not received the attention of sociologists, but Mann's (1967) description of a reformatory inmate "subculture," closely resembles the descriptions given by Patrick and others. The prisoners' "code" emphasized "toughness, including the capacity to take and hand out physical violence . . ." (1967:113). Newcomers' courage was invariably tested and those who could be intimidated were terrorized thereafter. Serious fights were frequent, many occurring during athletic contests in which middle-class norms of fair play were usually absent. Similar social environments elsewhere in Canada have been documented (Campbell, 1973; Thrasher, 1976).

Genuine fighting gangs, however, turn out to be few and far between. In the "violent" groups studied by Gannon (1970), Miller (1966) and Short and Strodtbeck (1965), serious fighting, particulary of the intergroup kind, was rare and violence hardly a dominant theme, though one of some importance. Other criteria often considered characteristic of a violent subculture are also not always apparent in research on conflict-oriented gangs (see Erlanger, 1974b: 281). More importantly, most of the literature on gangs is descriptive, not explanatory. Research inferring values of violence from observations of behavior or finding normative support for violent conduct does not advance the subculture thesis beyond the level of plausibility (see Hepburn, 1971; Hagan, 1972:110). Some (e.g., Clark, 1974) even argue that the essential sponginess of the idea of subculture, shown in the apparent inability of most empirical studies to define subcultural boundaries precisely, makes the concept of dubious worth in research (Clark, 1974; Fine and Kleinman, 1979).

Research on a Violent Occupational Subculture: Canadian Hockey

The foregoing violent subcultures may be termed *societal* subcultures: they tend to concentrate in specific socioeconomic groups and ecological areas, and they are usually thought to be products of some sort of social structural contradiction (Clark, 1974:435; Wolfgang and Ferracuti, 1967:161). Most of the sociological investigations of violence in hockey explicitly or implicitly characterize the game as having an *occupational* subculture based on a theme of violence. Canadian boys enter hockey around age seven. The ablest are quickly funneled into highly competitive "select" or "allstar" leagues where they begin their occupational socialization. Fighting and other illegal forms of assault (though not hard body contact) tend to be discouraged among younger boys, but around thirteen to fourteen years of age the criteria for player evaluation begin to change, for it is then that potential for junior professional and professional hockey is thought to reveal itself. By Midget age, fifteen, coaches are looking for the ability to mete out, and withstand, illegal physical coercion. Some boys this age are upwardly mobile primarily because they are good fighters (Smith, 1979a, 1979b; Vaz, 1976).

The attributes emphasized in these training years are those desired by the roughly fifty professional teams in North America which depend upon amateur hockey for a steady output of talent and to whose ranks most of the best players aspire. Because motivation to advance to higher level and then to professional teams is strong, and because the number of these teams progressively diminishes, competititon for positions is intense. The structure of the system compels aspirants to conform increasingly to prevailing professional standards, which include the necessity of employ-

ing at least a minimum level of "force-threat" (Goode, 1972). The influence of the professional game is weaker in house, or recreational, leagues, but it is still present. Intense exposure to the mass media for many decades has helped stamp the professional imprint on virtually all of Canadian hockey (Smith, 1978).

There is a strong machismo theme in the use of violence as an occupational tool in hockey. Players develop a finely honed sensitivity to slights; they posture and threaten and fight schoolyard-style, and even employ the same schoolyard argot. "I don't think there's nothing worse than being a chicken," says a professional performer (Faulkner, 1974:229–300). This sentiment pervades the culture, from bubblegum card biographies of players who "don't like to be pushed around" to magazine articles, "Why the Old Time Fights were Better' (Smith, 1978). It is found throughout the testimony for the "defense" in the transcript of the 1974 Ontario Government inquiry into amateur hockey violence (McMurtry, 1974).

Research on players' perceptions of the game's social climate reveals that older, select performers, in particular, view their teammates, coaches, and fathers (in that order) as approving of a variety of on-ice assaultive acts (Smith, 1975, 1979b). They approve, it seems, to the extent that violence works as an occupational tool and expresses moral character. It is probably not by chance that ocupationally approved moral character in hockey (e.g., being tough and cool in dangerous situations) appears to be a variation on a broader cultural theme. How else could the game have become, or remained, a national institution?

Qualitative research on professional players in the American Hockey League (Faulkner, 1973, 1974) and National Hockey League (Smith, 1979a, b) depicts the fully socialized end product of the sport. On entering the big leagues, and periodically thereafter, these performers are obliged to "show themselves," to lay claim to treatment as persons whom their colleagues can respect. Although not the only way of establishing a positive identity, displays of toughness, courage and willingness to fight are important means of doing so. Smith (1979b) asked sixty NHL players how they and their teammates react to one who refuses to fight when challenged. About half were unequivocal: "I'd rather see a guy fight and lose than turn his cheek and not fight at all, and I think a lot of the players are like that. You pretty well realize that you have to fight, otherwise the guys look down on you." The nonfighter threatens group cohesiveness. "You get a couple of guys trying to beat you up, you know he's not going to be there to help you out. That's a big thing. You don't look at these guys with much respect really." The other half stated that fighting *per se* is not required, but a player at least has to be willing to grapple with a man in a melee to prevent ganging-up, and to be tough enough to withstand opponents' coercive tactics. These are also coaches' requirements. Allowing one's "game to be killed" on the other hand, results not only in coming to be regarded as of doubtful moral worth but in being rendered relatively useless to the team. This code is similar to notions of honor and revenge in other cultures (e.g., Peristiany, 1965) and in fighting gangs; and depictions of the quintessential hockey practitioner are startingly like those of Toch's (1969) or Wolfgang's (1958) violent men.

Suggestive as they may be, not one of the foregoing studies contains adequate empirical confirmation, or disconfirmation, of the fundamental tenet of the violent subculture hypothesis: that, compared to those who do not, individuals who behave violently endorse values and attitudes that in some way promote violence. After all, people who act violently do not necessarily develop a culture which condones violence; nor do people who profess proviolence values and attitudes necessarily behave violently. A more precise empirical test of the thesis is still needed.

Method

The present data are from a 1976 survey of amateur hockey violence. Three populations of Toronto males aged twelve to twenty-one were sampled: (1) house-league hockey players, (2) select hockey players, (3) nonhockey players. From the first two populations, eight hockey

organizations were chosen—two house-league and six select; the organizations were then stratified by age-graded playing division. Including the control group of nonplayers, who were not subdivided, thirty-four strata were thus constructed.[3]

The sampling frame for players consisted of all those registered in the hockey organizations. Using simple random sampling without replacement, 740 selections were made. The selection probability for each stratum was between .33 and .45. Following the removal of nonrespondents and foreign elements (goaltenders, players released, traded, injured or for some reason not playing at least half a season), 551 players were interviewed, a 74 per cent response rate. Weighting, to correct for unequal selection probabilities, resulted in a final weighted sample of 604. As for the nonplayers, 180 students, corresponding in age to the other samples, were sampled with certainty from six schools representing a range of socioeconomic environments. One hundred and fifty-three of these students were interviewed, a response rate of 84 percent.

Following a pretest in late 1975, the survey was carried out during April 1976, after the hockey season. Interviewers employed by York University's Survey Research Centre conducted the interviews, which averaged fifty minutes and took place, in most cases, in the interviewees' homes. In all cases, only interviewer and interviewee were present.

Because of the importance attached to values in subculture theorizing, two separate value inventories were administered: the Rokeach Value Survey (Rokeach, 1973) and a modified version of items developed by Blumenthal *et al.* (1972). The Rokeach survey was chosen because of its demonstrated reliability and validity, its comprehensiveness, its ability to discriminate among persons of varying ages and backgrounds, and its prior use in research on the subculture of violence (Ball-Rokeach, 1973).

Still, as already noted, the connection between most of the Rokeach items and violence is somewhat tenuous, so a version of Blumenthal *et al.*'s (1972) value inventory, which specifically has to do with violence, was also constructed and administered. Some of the values were adopted verbatim, others rewritten, and several new items created. The result was twelve statements, a "modified Blumenthal Value Inventory." Using oblique rotation, principal factor analysis of the intercorrelation matrix of the responses to these statements uncovered two factors: one which was labeled Hit, the other—the antithesis—which was labeled Kindness (after Blumenthal's usage). Table 1 shows the value statements and their factor loadings.[4] (Responses were scored on a five-point scale from Agree Strongly to Disagree Strongly.) Hit and Kindness Indexes were created by summing respondents' scores on items with factor loadings of .40 or better. Estimates of internal reliability, Chronbach's alphas, are .66 for Hit and .44 for Kindness.

Slightly revised versions of items employed by the President's Violence Commission (Baker and Ball, 1969; see also Erlanger, 1974a:83) were used to ascertain attitudes towards violence (i.e., approval or disapproval). Two attitude indexes were constructed. The first, Approval of Teenage Fighting, was derived from the following questions (answers were coded Yes or No): (a)

3. The organizations and performers represented the spectrum of hockey in the city. Of the six select organizations (players win positions in competitive tryouts), two drew their players from local areas only, two recruited city-wide, two—Junior B and Junior A (in effect, junior professional)—recruited from even further afield. The two house-leagues (everybody plays) were typical of their kind. All told, ninety-eight teams were represented. The nonplayers were boys who played no organized hockey in 1975-76. About half had never played organized hockey. Detailed Sample Design Reports are available from the author.

4. The value statements were designed to tap four dimensions of violence: (1) as a means to an end (items 2, 5, 9, in Table 1); (2) kindness (items 3, 7, 10); (3) self-defense (items 4, 6, 8); (4) retributive justice (items 1, 11, 12). The last three dimensions are almost the same as the Blumenthal *et al.* (1972:97-133) indexes. Initial experimental factor analyses resulted in a somewhat unclear multifactor structure along the lines of the four dimensions above, but with over seventy-five per cent of the total variance explained by the first two factors. An oblique analysis, with all the variance forced into these two factors (subsequently termed Hit and Kindness), finally yielded the most satisfactory solution.

TABLE 1

Factor Loadings for Modified Blumenthal Values

Values	Factors: Hit	Factors: Kindness
1. When someone does wrong, he should be paid back for it.	.30	.24
2. Hitting a person is acceptable if it is the only way to get what you want.	*.48*	.12
3. It is important to be kind to people even if they do things you don't believe in.	.03	*.55*
4. A man has a right to hit another man in self-defense.	.26	.03
5. Hitting a person is acceptable if it is the only way to achieve an important goal.	*.55*	.02
6. A man has a right to hit another man to defend his property.	*.50*	.05
7. When a person harms you, you should turn the other cheek and forgive him.	.13	*.42*
8. A man has a right to hit another man to defend his reputation.	*.48*	.07
9. Hitting a person is acceptable if it is the only way to get what is rightfully yours.	*.60*	.02
10. Even if you don't like a person, you should still try to help him.	.03	*.44*
11. "An eye for an eye and a tooth for a tooth" is a good rule for living.	.35	.12
12. People who intentionally commit murder deserve to be killed themselves.	.23	.17

Are there any situations you can imagine, not counting sport, in which you would approve of a teenage boy punching another teenage boy? (If Yes): (b-1) If he had been ridiculed and made fun of by the other boy? (b-2) If he had been challenged by the other boy to a fight? (b-3) If he had been shoved by the other boy? Orthogonally rotated, principal factor analysis of the main and follow-up items yielded a single factor solution, with factor loadings of .91, .32, .65, .72. Respondents' scores were summed to form a composite index. Chronbach's alpha is .78.

The second attitude index, Approval of Hockey Fighting, was constructed in the same way. Respondents were asked: (a) Are there any situations you can imagine in which you would approve of a minor hockey player punching another player? (If Yes): (b-1) If he had been ridiculed and made fun of by the other player? (b-2) If he had been challenged by the other player to a fight? (b-3) If he had been shoved by the other player? Factor analysis of these items again resulted in a single factor solution, with item loadings of .82, .51, .70, .50. Scores were summed to form a composite index. Chronbach's alpha: .75.

Three measures of violent behavior (illegal physical assaults against others) were used. First, players were asked how many fistfights they had been in during the 1975–76 hockey season (34 per cent reported being in at least one). Second, the season's official game reports were obtained for a representative subsample of 273 players (156 house-league, 117 select) and each respondent's number of major (five minutes) penalties was ascertained (30.8 per cent of the subsample received at least one).[5] Third, all respondents were asked how many street fights they had been in during

5. All but two major, or five-minute, penalties in Ontario minor and junior professional hockey are for clearly violent infractions, such as fighting and serious "stickwork." The two nonviolent major offenses in the rule book are almost never called, neither appearing once in the present game reports. Referees' interpretations, of course, figure in the definition of what actually constitutes an offense under game conditions, but major penalties, all told, seems a reasonably valid measure of violence.

TABLE 2

Rokeach Value Differences among Players Varying in Violent Behavior (Chi Square Median Rank Test)

Values	Violent Behavior			
	Hockey Fights		Major Penalties	
	none	one or more	none	one or more
A Comfortable Life	8.1	7.6	7.8	8.9
An Exciting Life	8.3	7.7	8.9	8.4
A Sense of Accomplishment	7.9	7.2	7.9	6.7
A World at Peace	5.3	7.7[a]	4.5	10.6[b]
A World of Beauty	12.5	14.0[b]	12.6	14.6[a]
Equality	9.8	11.5[b]	9.8	12.4[b]
Family Security	6.4	5.3	6.0	5.2
Freedom	5.6	6.3	6.5	6.1
Happiness	4.5	4.9	5.3	5.4
Inner Harmony	12.6	13.7	13.0	11.8
Mature Love	10.8	9.0[a]	10.4	9.2
National Security	14.9	15.1	14.6	14.4
Pleasure	10.3	10.0	10.9	10.2
Salvation	16.0	16.7[a]	15.9	17.1[b]
Self-Respect	9.9	7.8[b]	9.2	5.6[b]
Social Recognition	12.4	11.9	12.8	11.6
True Friendship	5.9	5.8	5.7	5.8
Wisdom	8.1	8.4	8.1	7.0
Ambitious	6.0	4.8	6.0	4.6
Broadminded	9.6	8.8	9.4	6.8[a]
Capable	10.9	11.0	11.0	10.7
Cheerful	8.5	9.8	8.6	9.6
Clean	12.8	11.3	11.3	9.8
Courageous	10.4	8.9	10.6	8.3
Forgiving	8.5	10.7[b]	8.4	12.0[b]
Helpful	8.6	9.3	9.2	10.1
Honest	4.0	5.0[a]	13.7	5.1
Imaginative	14.1	15.1[a]	14.3	14.1
Independent	10.8	9.5	10.5	10.0
Intellectual	11.7	12.0	12.2	12.4
Logical	13.6	12.6[a]	13.3	11.4
Loving	7.5	7.2	7.1	8.6
Obedient	12.9	13.2	13.9	14.3
Polite	9.4	9.0	8.6	9.0
Responsible	5.2	5.0	5.7	5.6
Self-controlled	9.0	7.8	8.8	8.1

[a] Significance = .05.
[b] Significance = .01.

the last three years (60 per cent reported fighting one or more times). Each of these variables was coded 0 for no fights or penalties, 1 for one or more fights or penalties.[6]

Results

The violent subculture hypothesis, in its generic form, holds that violent behavior results essentially from adherence to values supportive of violence. In Ball-Rokeach's (1973:741) research, two alternative versions of such values were identified from among the thirty-six items in the

6. The original distributions of these variables are as follows: Fistfights—none = 398, one = 63, two = 45, three = 22, four = 24, five = 13, six or more = 39; Major Penalties—none = 189, one = 29, two = 12, three = 14, four = 10, five = 8, six or more = 11; Street Fights—none = 292, one = 113, two = 102, three = 47, four = 25, five = 57, six or more = 121.

TABLE 3

Values Indexes, Attitude Indexes and Structural Variables by Violent Behavior (Gammas)

Value Indexes, Attitude Indexes, Structural Variables	Violent Behavior		
	Hockey Fights	Major Penalties	Street Fights
Hit Index	.17[b]	.07	.13
Kindness Index	−.47[c]	−.39[c]	.21[b]
Approval of Fighting Index	.22[c]	.13	.19[b]
Approval of Hockey Fighting Index	.49[c]	.50[c]	.07
Fathers' SES[a]	−.32[c]	−.37[c]	.02
Age	.62[c]	.83[c]	−.37[c]
Level of Competition (House-League/ Select)	.83[c]	.97[c]	.08

[a] Blishen (1967) Index.
[b] Significance (Chi Square test) = .05.
[c] Significance (Chi Square test) = .01.

Rokeach Survey. The first version was that some men may be more violent than others because of stronger commitment to a subset of "male" values salient in a "machismo life-style," namely: An Exciting Life, Freedom, Pleasure, Social Recognition, Being Courageous and Independent. These same men should place less emphasis on being Forgiving. Table 2 indicates that only one of these values, Forgiving, significantly differentiates fighting and penalty-getting hockey players from nonviolent players in the direction hypothesized. This particular version of the "machismo life-style" hypothesis is, therefore, not confirmed.

Ball-Rokeach's second version was that violent men may be more committed to the entire "male" value-system. In that case, previous research would suggest that they would put greater importance than the less violent on A Comfortable Life, An Exciting Life, Family Security, Mature Love, Ambitious, Capable, Logical and Self-Controlled; less importance on A World at Peace, Inner Harmony, Salvation, Wisdom, Cheerful, Clean, Forgiving, Helpful and Loving. In the present study, of these seventeen values, only Mature Love, A World at Peace, Salvation, Forgiving and Logical reach statistical significance as hypothesized, when it comes to self-reported fights. In the case of major penalties, A World at peace, Salvation and Forgiving are statistically significant (Table 2). Ball-Rokeach's second version, in short, receives scant support.

It could be argued, of course, that other subsets of Rokeach values better characterize a proviolence orientation. Violent players ranked Self-Respect higher and Forgiving and A World at Peace lower than did nonviolent players, for example. On the other hand, the median ranks of these items are of little substantive interest.

The modified Blumenthal values do better in distinguishing among players varying in violent conduct. Table 3 shows statistically significant relationships between the Hit Index and number of hockey fights, and between Kindness and respondents' fights *and* major penalties. But statistical significance is partly a function of sample size. What of substantive significance? The association between Hit and fighting is weak (gamma = .17), but for Kindness and both measures of violence gammas are a substantial .47; and gammas are .49 and .50 for the relationships between the Approval of Hockey Fighting Index and both dependent variables. Violent hockey players exhibit a significantly more proviolence value and attitude pattern than do nonviolent players. In the broadest sense of the concept, then, violent players can be said to share a subculture.

But these linkages between values, attitudes, and violent behavior reveal nothing definite about the basis of the subculture apparently supporting the shared values found here, e.g., whether it is

TABLE 4
Structural Variables by Values and Attitude Indexes (Gammas)

Structural Variables	Value and Attitude Indexes			
	Hit Index	Kindness Index	Approval of Fighting Index	Approval of Hockey Fighting Index
Fathers' SES[a]	.03	.09	.04	.16
Age	.15	–.22[b]	.10	.43[c]
House-League/Select	.14	–.34[c]	.18	.49[c]
Never Played/Select	.23[b]	–.40[c]	.36[c]	.54[c]

[a] Blishen (1967) Index.
[b] Significance (Chi Square test) = .05.
[c] Significance (Chi Square test) = .01.

societal, as Wolfgang and Ferracuti reasoned, or occupational, as much of the hockey violence research suggests. Two tests of the societal hypothesis are possible, however.

First, youths who hold values and attitudes supportive of violence ought to fight not only on the ice, where normative standards are most salient, but off the ice as well. Table 3 reveals only weak associations, however, between the value and attitude (both Approval of Hockey Fighting and the more general Approval of Fighting) indexes and number of street fights. Values and attitudes prove to be poor predictors of off-ice violence. Second, most renditions of the societal hypothesis posit that subculture members come from lower social class backgrounds. Table 3 shows that although lower SES boys were in more hockey fights (gamma = –.32) and did receive more major penalties (gamma = –.37) than their higher SES counterparts, they were not in more street fights (gamma = –.02). In any event, the relationship between SES and hockey violence is not mediated by values and attitudes, according to Table 4. The hockey subculture is not the societal subculture described by Wolfgang and Ferracuti and other theorists in the criminological tradition.

There remains the possibility of an occupational subculture in hockey, composed mainly of older boys in highly competitive leagues, where professional standards of performance, including those regarding the use of violence, are in effect. Table 3 confirms that age and level of competition are strongly positively related to fighting and penalty getting. But do values and attitudes intervene? A gamma of –.22 for the association between age and Kindness is not impressive, but .43 for age and Approval of Hockey Fighting is, as are the associations between level of competition and the Kindness and Approval Indexes (gammas of –.34 and .49; Table 4). When select players are compared with the ninety-five nonplayers who had *never* played organized hockey, gammas are even larger (Table 4).

Finally, the multiple regression equations in Table 5 show that age and level of competition, though correlated (r = .37), independently affect values, attitudes and violent behavior; that is, though older respondents are overrepresented at the select level, the effect of age is not merely a function of level of competition. Both age and level of competition have an impact on values, attitudes and violent conduct.

Conclusion

The generic form of the violent subculture hypothesis states that violent individuals put significantly greater importance than nonviolent individuals on values and attitudes supportive of violence. The foregoing results verify the hypothesis; hockey players who fought more and got more major penalties exhibited a more proviolence value-attitude pattern than nonviolent players and nonplayers. The data do not support the societal version of the hypothesis, however; values

TABLE 5

Multiple Regression Equations for the Effects of Age and Level of Competition on Hockey Fighting, Kindness and Approval of Hockey Fighting (Zero-Order Correlation Coefficients, Standardized Partial Regression Coefficients, Coefficients of Determination)

Independent Variables	Dependent Variables					
	Hockey Fights		Kindness Index		Approval of Hockey Fighting Index	
	r	b	r	b	r	b
Age	.50	.34[b]	.13	.10[a]	.35	.27[b]
House/League Select	.44	.25[b]	.16	.11[a]	.32	.22[b]
R^2	.32		.04		.17	

[a] Significance = .05.
[b] Significance = .01.

and attitudes were poor predictors of off-ice fighting and bore no relationship to social class. What the data do point to is an occupationally-oriented violent subculture, composed mainly of older players in highly competitive select and junior leagues, where professional criteria regarding the use of violence are in force. Compared to younger, house-league boys, and to nonplayers, these performers endorsed values and attitudes of violence.

Despite these findings, some might prefer to view amateur hockey violence as a manifestation of a cultural, not a subcultural, theme. Certainly there is a growing body of evidence that Canadians have always been more bellicose, privately and publicly, than popular belief would have it (see Smith, 1979b). It could be argued, for instance, that some of the present "subculture" -nonsubculture differences—in values, especially—are not marked enough to warrant a subculture interpretation (see Erlanger, 1974b). This is a moot point. Secondly, if a subculture is so large it threatens to engulf the larger culture, the notion of subculture becomes superfluous. Were the hockey "subculture" taken to include others besides players, this verges on being the case. A 1970 national opinion poll reported that 39 per cent of Canadians like to see fighting at hockey games (Macleans-Goldfarb, 1970); 61 per cent of the present select performers perceived spectators at their games as approving of fighting in at least three of four situations presented (Smith, 1979b). Future research should address the question of subcultural boundaries. Pending such studies, the occupational subculture interpretation seems appropriate.

REFERENCES

Baker, R. and S. J. Ball
1969 Violence and the Media. Washington, D.C. United States Government Printing Office.
Ball-Rokeach, S. J.
1973 "Values and violence: A test of the subculture of violence thesis." American Sociological Review 38 (December): 736–49.
Blalock, H. J., Jr.
1972 Social Statistics. New York: McGraw-Hill.
Blishen, B. R.
1967 "A socio-economic index for occupations in Canada." Canadian Review of Sociology and Anthropology 4 (February): 41–53.
Blumenthal, M. D., R. L. Kahn, F. M. Andrews and K. B. Head
1972 Justifying Violence: Attitudes of American Men. Ann Arbor: Institute for Social Research, University of Michigan.
Brown, C.
1975 "The family and the subculture of violence." Pp. 262–68 in S. K. Steinmetz and M. A. Straus (eds.), Violence in the Family. New York: Dodd, Mead and Company.

Campbell, M.
1973 Halfbreed. Toronto: McLelland and Stewart.
Clark, M.
1974 "On the concept of 'subculture'." British Journal of Sociology 25 (December): 428–441.
Dietz, M. L.
1978 "The violent subculture: The genesis of violence." Pp. 13-39 in M. A. Beyer Gammon (ed.), Violence in Canada. Toronto: Methuen.
Erlanger, H. S.
1974a "Social class and corporal punishment in childrearing: A reassessment." American Sociological Review 39 (February): 68-85.
1974b "The empirical status of the subculture of violence thesis." Social Problems 22 (December): 280-91.
1975 "Is there a 'subculture of violence' in the South?" Journal of Criminal Law and Criminology 66 (December): 483-490.
Faulkner, R. R.
1973 "On respect and retribution: Toward an ethnography of violence." Sociological Symposium 9 (Spring): 17-36.
1974 "Making violence by doing work: Selves, situations, and the world of professional hockey." Sociology of Work and Occupations 1 (August): 288-312.
Ferracuti, F., R. Lazzari and M. E. Wolfgang (eds.)
1970 Violence in Sardinia. Rome: M. Bulzoni.
Fine, G. A. and S. Kleinman
1979 "Rethinking subculture: An interactionist analysis." American Journal of Sociology 85 (May): 1-20.
Gannon, T. M.
1970 "Dimensions of current gang delinquency." Pp. 340-50 in M. E. Wolfgang, L. Savitz and N. Johnston (eds.), The Sociology of Crime and Delinquency. New York: Wiley.
Gastil, R. D.
1971 "Homicide and a regional culture of violence." American Sociological Review 36 (June): 412–427.
Goode, W. J.
1972 "The place of force in human society." American Sociological Review 37 (October): 507-519.
Hackney, S.
1969 "Southern violence." Pp. 505-527 in H. D. Graham and T. R. Gurr (eds.), The History of Violence in America. New York: Praeger.
Hagan, J. R.
1977 The Disreputable Pleasures. Toronto: McGraw-Hill Ryerson.
Hepburn, J. R.
1971 "Subcultures, violence, and the subculture of violence." Criminology 9 (May): 87-98.
Horowitz, R. and G. Schwartz
1974 "Honor, normative ambiguity and gang violence." American Sociological Review 39 (April): 238-51.
Keiser, L.
1969 The Vice Lords: Warriors of the Streets. New York: Holt, Rinehart and Winston.
Kupferer, H. J. and J. A. Humphrey
1975 "Fatal Indian violence in North Carolina." Anthropological Quarterly 48 (October): 236-44.
Langness, L. L.
1972 "Violence in the New Guinea highlands." Pp. 171-85 in J. F. Short and M. E. Wolfgang (eds.), Collective Violence. Chicago: Aldine Atherton.
Loftin, C. and R. H. Hill
1974 "Regional subculture and homicide: An examination of the Gastil-Hackney thesis." American Sociological Review 39 (October): 714-724.
Luckenbill, D. F.
1977 "Criminal homicide as a situated transaction." Social Problems 25 (December): 176-186.
McMurtry, W. R.
1974 Investigation and Inquiry into Violence in Amateur Hockey. Report to the Honourable Rene Brunelle, Ontario Minister of Community and Social Services. Toronto: Ontario Government Bookstore.
Miller, W. T.
1966 "Violent crimes in city gangs." Annals of the American Academy of Political and Social Science 364 (March): 97-112.
Mann, W. E.
1967 Society Behind Bars: A Sociological Scrutiny of Guelph Reformatory. Toronto: Social Science Publishers.

Marshall, D.
1970 "We're more violent than we think." Macleans (August): 14-17.
O'Connor, J. F. and A. Lizotte
1977 "The 'Southern subculture of violence' thesis and patterns of gun ownership." Social Problems 25 (December): 420-429.
Patrick, J.
1973 A Glasgow Gang Observed. London: Eyre Methuen.
Peristiany, J. G.
1965 Honor and Shame. London: Weidenfeld and Nicolson.
Reed, J. S.
1972 The Enduring South. Lexington, Massachusetts: D. C. Heath.
Rokeach, M.
1973 The Nature of Human Values. New York: Free Press.
Short, J. F. and F. L. Strodtbeck
1965 Group Process and Gang Delinquency. Chicago: University of Chicago Press.
Smith, M. D.
1975 "The legitimation of violence: Hockey players' perceptions of their reference groups' sanctions for assault." Canadian Review of Sociology and Anthropology 12 (March): 72-80.
1978 "From professional to youth hockey violence: The role of the mass media." Pp. 269-281 in M. A. Beyer Gammon (ed.), Violence in Canada. Toronto: Methuen.
1979a "Hockey Violence." Canadian Dimension 13 (March):42-45.
1979b "Towards an explanation of hockey violence: A reference other approach." Canadian Journal of Sociology 4 (May): 105-124.
Stark, R. and J. McEvoy
1970 "Middle-class violence." Psychology Today 4 (November): 52-4, 110-12.
Thrasher, A.
1976 Thrasher: Skid Row Eskimo. Toronto: Griffin House.
Toch, H.
1969 Violent Men. Chicago: Aldine.
Vaz, E.
1976 "The culture of young hockey players: some initial observations." Pp. 211-215 in A. Yiannakis, T. D. McIntyre, M. J. Melnick and D. P. Hart (eds.), Sport Sociology: Contemporary Themes. Dubuque, Iowa: Kendall-Hunt.
Wolfgang, M. E.
1958 Patterns of Criminal Homicide. Philadelphia: University of Pennsylvania Press.
Wolfgang, M. E. and F. Ferracuti
1967 The Subculture of Violence: Toward an Integrated Theory in Criminology. London: Tavistock.
Yablonsky, L.
1962 The Violent Gang. London: Collier-Macmillan.