This study investigates the question of whether or not exposure to televised professional sports affects the social behavior of young people who themselves actively engage in those sports. Lacrosse, hockey, baseball were monitored on television, with students questioned about the impact the behavior of the players (pro-social and anti-social) has upon their own behavior on the playing field. Findings suggested that exposure to anti-social media does not necessarily lead to increased levels of aggressive behavior among children and youth participants in organized sports. In general, a positive relationship did appear between exposure to pro-social media and high levels of pro-social behavior. Results were inconclusive in regard to the issue of desensitization to violence as a result of observation of anti-social media. It is recommended, however, that the mass media be encouraged to depict and emphasize the pro-social model and positive behavioral aspects of amateur and school sport activities, as well as offering more exposure to those sports high in pro-social behavior, such as golf and tennis. (JD)
STUDIES OF TELEVISION AND YOUTH SPORTS
LABORATORY/FIELD RESEARCH ON THE EFFECTS OF PRO-SOCIAL AND ANTI-SOCIAL TV MODELS ON CHILDREN/YOUTH IN SPORT/ATHLETICS

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Television pervades the life of North American Children and Youth. Throughout elementary, secondary and indeed post-secondary education approximately one-quarter to one-third of the youths waking hours are spent watching television programming. Continuing efforts by the social researchers to comprehend the implications of this increasingly dominant medium on the child's development have focused narrowly on establishing the existence of a cause and effect relationship between television violence and the behaviour of the young viewer. However, while the socially significant area of sports/athletics pervades the life of a vast majority of children on the Canadian/American scene, we do not know the effect of televised sports/athletics upon youth since:

1) little study has been conducted,
2) the studies which have been conducted have had contradictory results, and
3) researchers have largely ignored the pro-social effects of television viewing.

The reason for this deplorable lack of empirically based data may be that:

1) The amount of sports/athletics T.V. coverage was, relatively speaking, infinitesimally small at the turn of this decade when other prominent commissions and serious studies were being conducted.

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2) The studies which have been conducted in the area of sports/athletics dealing with aggression and violence have had contradictory results which, in general, show the laboratory studies supporting the learned theory (aggression and violence begets aggression and violence); while the field studies had supported the cathartic theory (involvement in sport/athletics or to a lesser extent viewing of aggression and violence reduces the need to be aggressive and violent).

3) There had been a swing of the pendulum in terms of sport/athletic study/research to focus on the negative rather than the positive (after almost a century of evangelizing upon sport/athletics as an unmixed blessing).

Throughout these study/research projects, it became apparent that both the quantity and quality of sport/athletic TV coverage and the nature of the content in terms of aggressive vs non-aggressive projection of behaviour role models, was changing significantly. Therefore SIR/CAR commissioned the study listed below.

The Ontario Royal Commission has authorized funds for studies dealing with the cause and effect relationship between media and the high level of aggression and violence which confronts us in North American Society. Thus, this specific project was designed to bring together theoreticians and practitioners from areas of higher education, research, sport/athletics and media to
analyze the cause and effect relationship between media models of pro and anti-social nature on sport or athletic behaviour in children/youth sports.

The plan for this particular study included monitoring the effect of pro and anti-social media inputs in terms of the immediate and intermediate term effects on three specific sport activities -- lacrosse, hockey and baseball. The rules of the three activities cover the full range from allowable body contact with an implement to non-contact activity. The fundamental thesis investigated here was the question of whether or not exposure to media input, specifically qualitatively different (pro-social and anti-social) and quantitatively different (one week or two weeks), provide models which significantly effect the behaviour of youth ranging in age from eight to eighteen.

The following criteria were utilized to determine pro-social and anti-social behaviour models:

1) Co-operation or lack of co-operation towards team members and opponents.
2) Verbal aggression towards team members, opposing team members, coaches, referees, or umpires.
3) Any acts of direct physical violence.
4) Team cohesion displayed by encouragement and reassurance for performance.
5) Team 'alienation' displayed by disapproval and condemnation of performance.
6) General sportsmanlike or unsportsmanlike behaviour.
7) General attitude of players being friendly or hostile.
8) Positive or negative reinforcement by coach or manager.
9) Crowd reactions being either supportive or non-supportive.

The research evaluated three different age groups and three separate samples in hockey, spanning a period of approximately one month as well as three different age groups in lacrosse and two different age groups in baseball (both boys and girls) for a period of time spanning one to three weeks. Overall, the design divided the subjects (259) into three groups:

a) Experimental where subjects were observed, exposed to pro-social models, observed, exposed to pro-social models and observed.

b) Experimental where subjects were observed, exposed to anti-social models, observed, exposed to anti-social models and observed.

c) Control where subjects were observed at intervals corresponding to Experimental groups 1 and 2 but received either neutral or no TV treatment.

In an effort to control confounding variables, the study was conducted in a laboratory/field setting either early in the regular season of play (baseball) or in sport/athletic summer schools or leagues focusing on instruction as opposed to competition (lacrosse and hockey). By fortuitously seizing upon this field setting, the principle investigators were able to eliminate one of the major confounding variables in previous studies, namely the evolutionary increase in aggression and violence as the regular season proceeds from early to late playoffs and/or
tournaments. The principle investigators further attempted to control confounding variables through opinionnaires which allowed assessment of baseline behaviour and normal viewing TV habits and also, by the monitoring of behaviour of the subjects while viewing TV, comparing reactions to TV aggression and violence to vis a vis aggression and violence while participating in sport/athletics.

The method for collecting and analyzing the data was the fundamental SAW process - Seeing or observing by personal observation teams and/or media record (overt behaviour) as well as Binocular Rivalry (covert behaviour); Asking by Semi-Directed Focused Interview, and Written opinionnaire as well as standard Research and Development references.

Seeking simple answers to the phenomenon of TV in this computerized, technological, future shock world is simply naive. In short, the thrust of this laboratory/field research project is to control insofar as possible, the exposure of youth to pro-social and anti-social TV sports inputs in an area of their participation (baseball, lacrosse, or hockey) and/or to guard against any off-setting counterproductive treatment by the subjects, so that it can be determined as to whether or not there is any direct relationship between TV viewing (TV) and immediate and intermediate sport/athletic behaviour in youth.

Our findings overall suggest that exposure to anti-social media does not necessarily lead to increased levels of aggressive behaviour among children and youth participants in organized sports. Neither the experimentally provided anti-social media inputs nor the aggressiveness of programs watched by the children
at home show any strong and consistent relationships with aggressive behaviour on the playing field.

In general, a rather strong relationship did appear between exposure to pro-social media and high levels of pro-social behaviour. Baseball players were the only group among whom this relationship did not appear. Symbolic aggression (non verbal and verbal aggression) also tended to be higher among those groups whose viewing was relatively pro-social.

The viewing habits of children and youth indicate that they prefer to watch sports/athletics, situation comedies, and cartoons rather than mystery, adventure, or dramatic programs. Among the most commonly televised sports/athletics activities, hockey ranks a very strong first with baseball coming in a rather distant second. Interestingly, these preferences were reflected across the lacrosse and baseball groups as well as the hockey groups. Among occasionally televised events, some preference is shown for boxing, car racing, and track and field.

The number of hours spent viewing television shows a wide diversity across individuals with some watching as few as ten hours and others as many as fifty hours per week. There is little difference between the winter and summer months in the concentration of viewing. There is, however, a heavy concentration of viewing in the evening as opposed to the morning and afternoon. Considerably more than half of the time spent watching television is during the evening hours. Morning is slightly more preferred than afternoon for watching except among the baseball players.
Perception of violence was not markedly changed as a result of pro-social or anti-social exposure. A very slight tendency toward the perception of more violence among the anti-social exposure groups and toward the perception of less violence among the pro-social groups appeared.

On the basis of our results we are led to the conclusion that exposure to anti-social programming has less effect on the behaviour of children and youth than does exposure to pro-social programming. Several cautions are in order, however, in interpreting the results. Our data clearly indicate that we are dealing with two rather different populations. Baseball teams showed quite different patterns on both the written opinionnaire portions of the study and in their actual behaviour on the playing field than did the hockey and lacrosse players who were relatively similar to each other. The patterns of relationships were in some cases diametrically opposed in the two groups. In the context of the present study it was not possible to examine why children and youth elect to play one sport rather than another but the characteristics which are involved in the selection are very likely to interact with media exposure. Thus we are suggesting that individual factors probably determine the reaction to viewing both anti-social and pro-social media.

A second unknown in this study is whether children/youth who do not participate in organized sports are systematically different from those who do. A control group of non-participants was not
included and, therefore, our findings apply only to those who engage in organized team sports. This study focused on group as opposed to individual behaviour.

Regarding the issue of desensitization to violence as a result of observation of anti-social media, our results do not provide conclusive answers. The indication from the binocular rivalry data would suggest that within the concept of pictorial input, exposure to anti-social media tends to sensitize rather than desensitize viewers. Those players exposed to the anti-social inputs had a slight tendency to see more aggression than did those who had been exposed to prosocial inputs. The trends observed were not statistically reliable. It should be noted that these findings do not necessarily indicate that the same sensitization would be present in the observations of an actual aggressive act.

The Written opinionnaire shows the following trends:

1) Television viewing particularly of sports occupies a large portion of the life of children/youth.

2) Of the Sports shows shown regularly on television those generally classified as aggressive athletic activities (such as hockey) are viewed most consistently. Similarly, of the occasional sport shows boxing ranks first but is partially balanced by track and field which is non-aggressive and is almost equally popular. It should be noted that the number of hours devoted to sport/athletics is biased towards very aggressive and aggressive shows.
3) Among the non-sport/athletic shows viewed children/youth appear to select cartoons and comedy over mystery, adventure and drama.

4) In terms of general attitude towards sports/athletics, the children/youth showed a clear dichotomy with boys and girls involved in baseball expressing values identified with true amateur sport model while those involved in lacrosse and hockey identified with the professional athletic model and orientation.

5) Among the programs listed by the players/competitors the proportion of very non-aggressive and non-aggressive shows outweighed the aggressive and very aggressive shows.

Our recommendations regarding the interface of television and sports/athletics fall into two general classifications: those involving directions for future research in this area and those suggesting policy for media.

While most research reports conclude with a call for further research to clarify cloudy issues, the paucity of research studies in the sports/athletics and media area make it incumbent upon the principal investigators to stress the urgent need for the accumulation of a solid data base on both participation and viewing of sports/athletics. Further, a review of the general study/research in the area of the effects of TV viewing upon children/youth and subsequent behaviour presents a difficulty since there
is a lack of integration of laboratory research and field studies as well as conflicting results which frequently eminates from field studies when compared with laboratory research. In view of this fact the laboratory/field approach to study in this area would appear to be the most reasonable. It provides a near optimum balance between control of the variables under study and a realistic setting in which to observe their relationships. The natural controls which sport/athletic games/contests provide such as precise timing, restrictions on the space for both players and spectators, easy identification of the players/competitors as subjects or even the allegiance of fans provide an excellent laboratory/field research setting.

Future studies need to be directed toward examining whether there are sex differences in the relationship between media and behaviour in sports/athletics. In order to accomplish this, female sports/athletics groups which are at the same stage of organization development as the corresponding male groups, or groups which are highly integrated should be sought for study.

Longer term follow-up studies are needed to determine the extended consequences of exposure to anti-social and pro-social media. In the present study it was possible to examine the intermediate term effects of relatively concentrated exposure. Had the media exposure been extended and/or had subjects been observed for longer periods of time, different patterns of results may have emerged.
While the present study attempted to involve a fairly broad age range, the majority of participants were aged 7 to 17 years. More extensive study of older individuals, particularly youth aged 15 to 25, would be desirable.

On the basis of the results of the present study the following recommendations are made:

1) Pro-social presentations - the present emphasis in televised sports/athletics tends very much toward professional team athletic events. These events generally emphasize winning as the major goal and, occasionally, 'winning at all costs'. In light of the present results, we recommend increased coverage of sports events in which goals, such as, playing for 'fun and recreation' are emphasized. Increased coverage of school and other amateur sports would serve such a purpose. Increased coverage of sports/athletic events in which pro-social behaviour is common and a matter of custom, i.e., golf and tennis, would also be desirable.

2) Along the same lines it would be possible to provide increased pro-social input, in activities which by their nature or in practice do not generally provide pro-social models. The introduction of "cameo" features in which the participants in an athletic event being televised are shown engaging in pro-social activities is possible and desirable. This serves the function of providing positive role models for viewers even though the individuals depicted might not be shown as highly pro-social during the normal course of the telecast.
Examples of such cameo presentations exist on American television where the American National Football League has shown professional players engaging in voluntary helping activities.

3) We have no empirical basis for recommending changes in current programming aside from suggestions for the inclusion of more pro-social content. Our subjects' viewing preferences, include programs which overall would appear to depict less explicit and realistic violence than do the non-preferred programs.

4) A concerted effort should be made to locate extent pro-social audio-visual sources to be used by public media and/or all levels of sports/athletic organizations.

5) Study/research commissioned and conducted by the television industry as well as government commissions on the Canadian-American scene show the high level of concern regarding the actual and potential effects of TV upon North American children/youth. We strongly recommend an investment of energy and resources to encourage mass media to depict and emphasize the pro-social model and positive behavioural aspects of sports by such things as televising more amateur/school sport activities, and/or utilizing local press, radio and TV to convey the distinction in goal, method and means between, amateur sport and professional athletics. Mass media and television in particular could provide a vehicle
by which appropriate pro-social role models could be provided for the large number of citizens involved in youth sport activities. In addition to providing input on technical skills teaching, a strong emphasis should be placed on the physiological, psychological, sociological, and general educational needs of children/youth involved in sports activities. It is the opinion of the principal investigators and those of us involved in SIR/CAR research studies in the area of children/youth sports that a concerned and beleaguered media would welcome these suggestions and readily join in a partnership to achieve this goal.