Effects of media violence and computer games on child and youth mental health.

By

Professor Kevin Browne,

Centre for Forensic and Family Psychology, School of Medicine,

University of Nottingham, UK

kevin.browne@nottingham.ac.uk

"well over a 1000 studies.... point overwhelmingly to a causal connection between media violence & aggressive behaviour in some children." (AACAP "Media Violence Harms Children.")

Public Health of Media Violence

Consider the effects of violent imagery on the child within the broader context of child welfare and family and community influences.

(Browne and Hamilton 2005 - Lancet;365:702-710)

Concerns of the film censors 1

The following elements of film, DVD and Game imagery are seen as potentially harmful to viewers:

- **Criminal behaviour**
- **Use of illegal drugs**
- **Violent scenes**
- **Horrific scenes**
- **Sex scenes**
- **Obscene language**

Or any combinations of the above

Degree of influence relates to reality of viewer.

- Current or Historical context.
- Cartoon or graphic photo image.
- Relates or not to viewer's experiences in real world

The Importance of role models of television violence:

Most children reject violent behaviour committed by 'baddies' whereas the 'goodies' could do no wrong.

(Vooijs and Vand der Voort, 1993)

Violent imagery in children's films classified PG & 12

Violent characters in children's films classified PG & 12

Toy sales to young children confuse and invalidate classification advice to parents

Potential for active imitation of violent scenes

Ways in which screen violence can affect behaviour:

1. Imitation of violent roles.

2. Triggering aggressive impulses.

3. Desensitizing feelings of victim sympathy.

4. Being indifferent to violent interactions.

5. Seeing violence as socially acceptable.

6. Seeing violence as a normal response to frustration and stress.

Imitation in play and bullying

Imitation
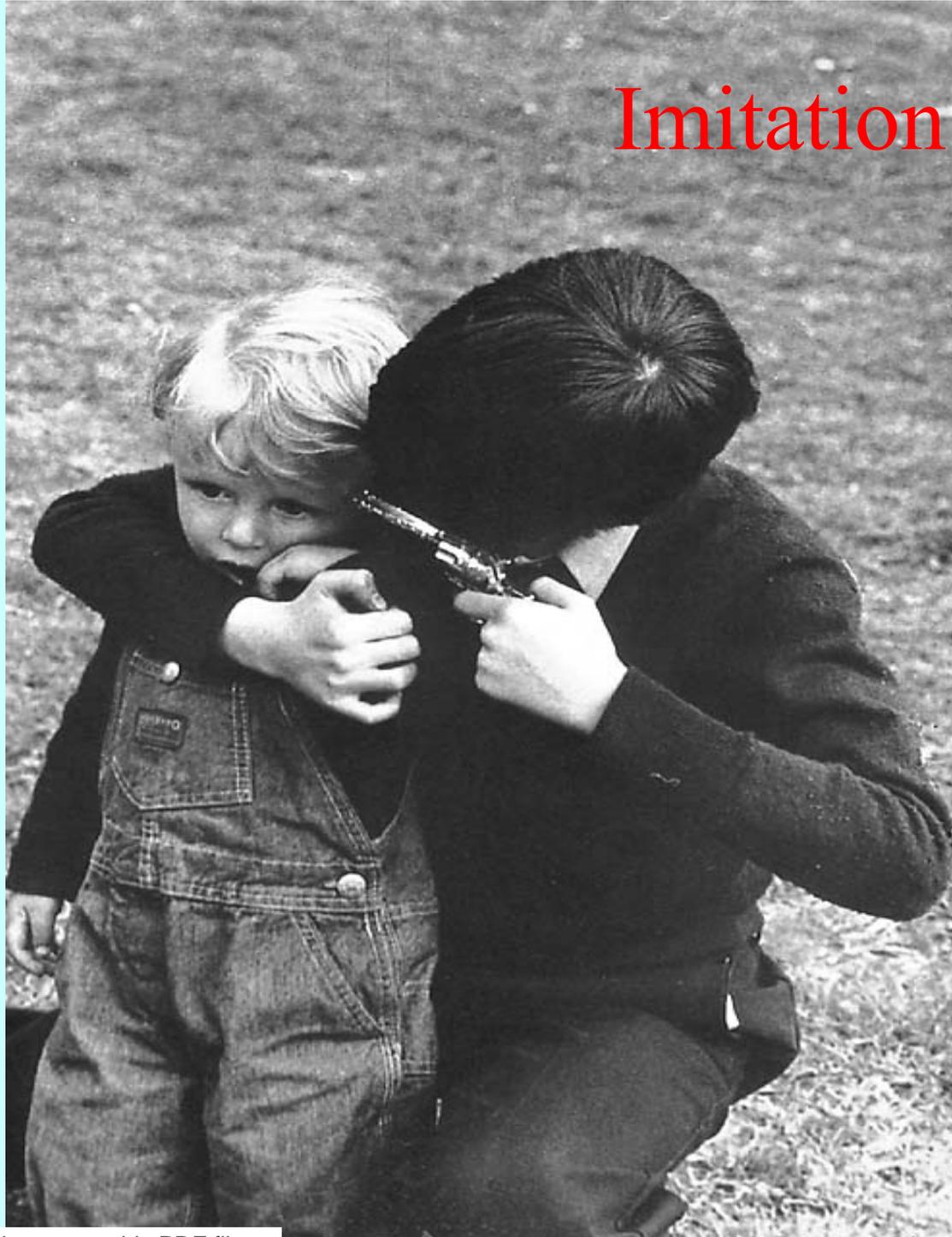
Extent of Media Violence

- The average American/European child views 10,000 murders, rapes and aggravated assaults per year on television alone.

  (Huston et al, 1992)

- Children who attend school spend more than half of their leisure time watching television: 50% have a TV in their own rooms and 61% of US TV programmes contains violence.

  (US National Television study, 1998)

Effects of Violent Television and film on Children in the USA (Passive media)

- A large number of studies support the findings that aggressive or anti-social behaviour can be increased in children and adolescents after watching violent television/film (Strasburger, 1995).

- Boys more susceptible than girls, greater effects on younger children.

- Two Meta-analyses (217 studies - Paik & Comstock, 1994; 28 studies - Wood et al, 1991) with effect sizes d=0.40 to 0.65. This is larger than the effect of condom use on decreased HIV risk or calcium intake on bone mass.

- Weaker effect sizes for criminal violence d=0.20.
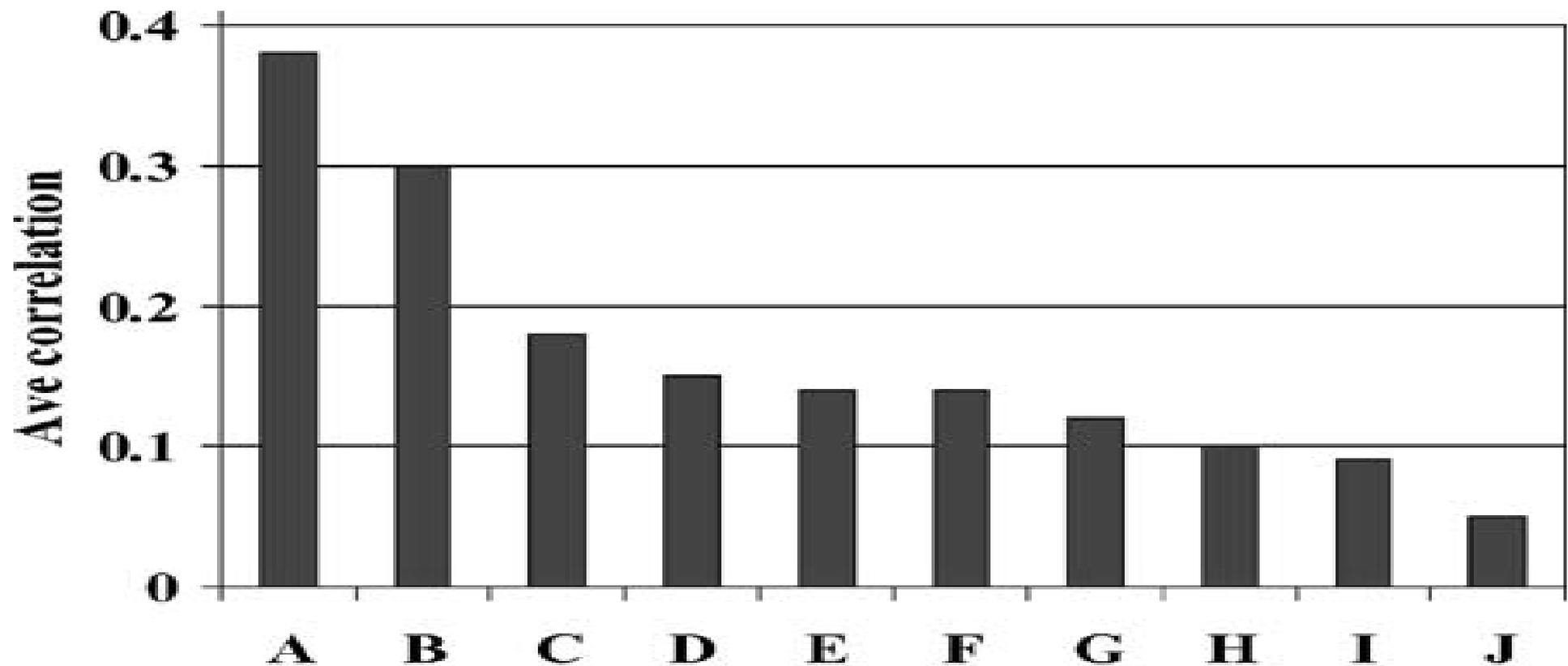
A. Smoking and lung cancer
B. Media violence and aggression
C. Condom use and sexually transmitted HIV
D. Passive smoking and lung cancer at work
E. Exposure to lead and IQ scores in children
F. Nicotine patch and smoking cessation
G. Calcium intake and bone mass
H. Homework and academic achievement
I. Exposure to asbestos and laryngeal cancer
J. Self-examination and extent of breast cancer

Aggression at Ages 21to 25 Is Predicted by TV Violence Viewing at Ages 6 to 10 (Oak Park Longitudinal Study--Huesmann, Moise, Podolski & Eron, *Developmental Psychology*, 2003)
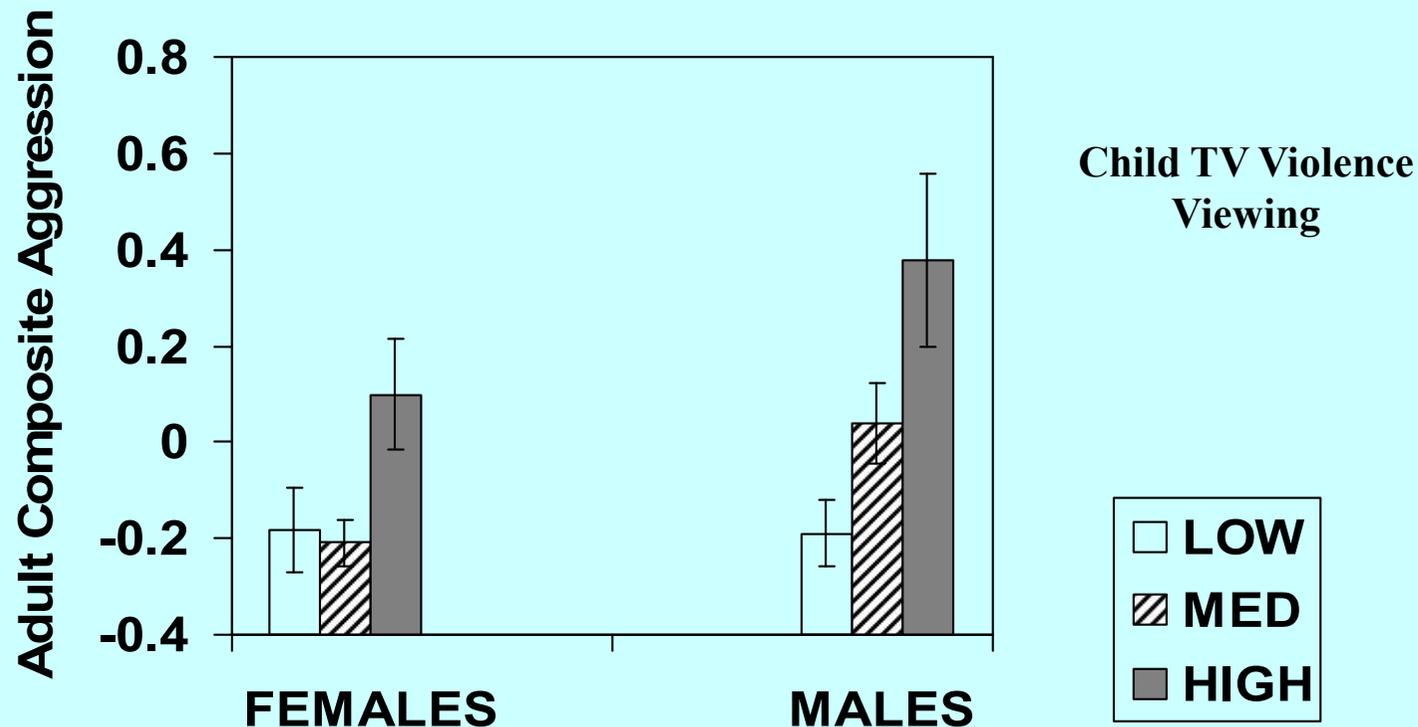
Males' Violent Crimes by Age 30 Relate To Their Age 8 TV Viol Viewing (Columbia County Study, Huesmann, *J Social Issues*, 1987)

Mean Violence Rating of Crimes for which Arrested by Age 30 (1982)

TV Violence Viewing at Age 8 (1960)

Low   Med   High
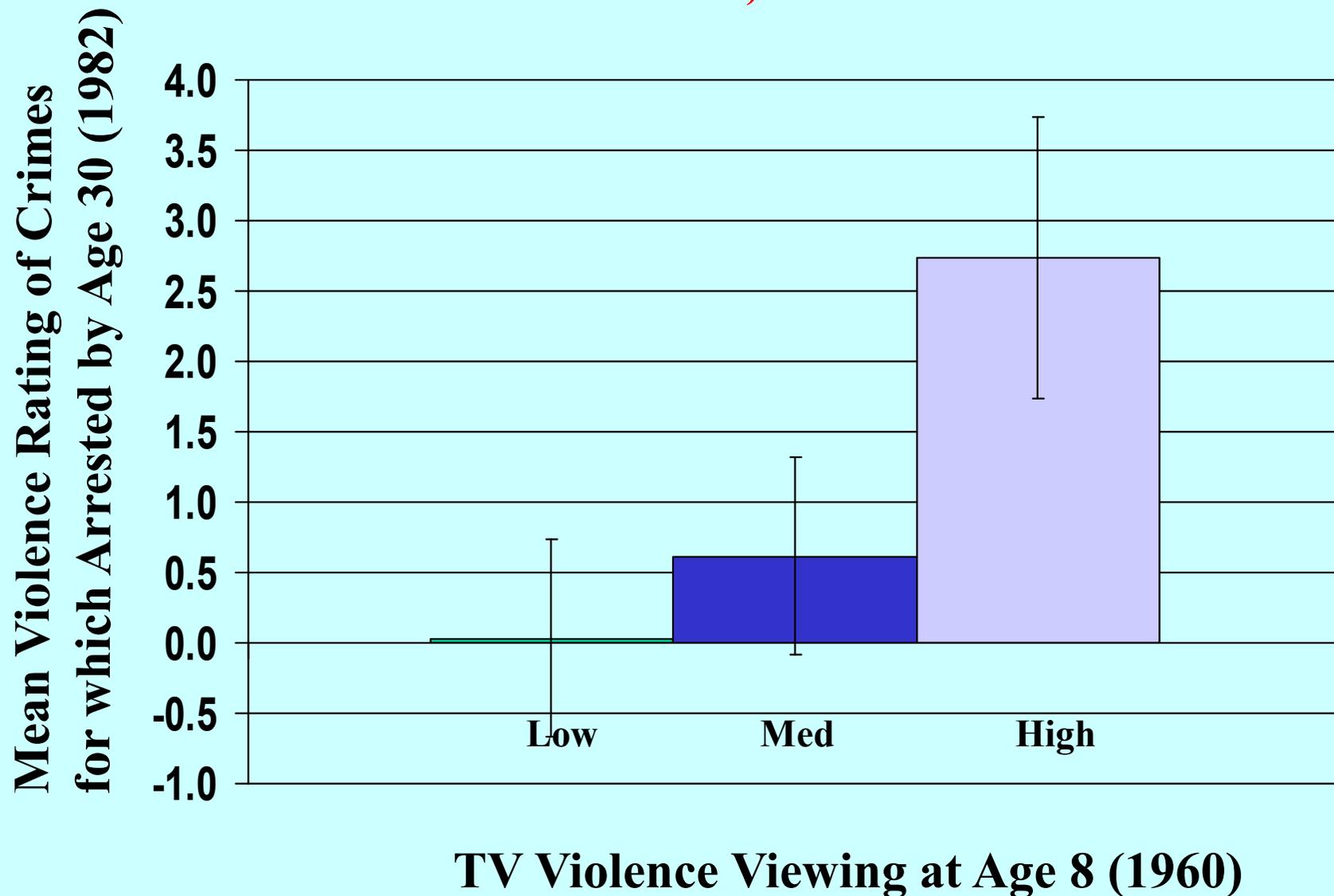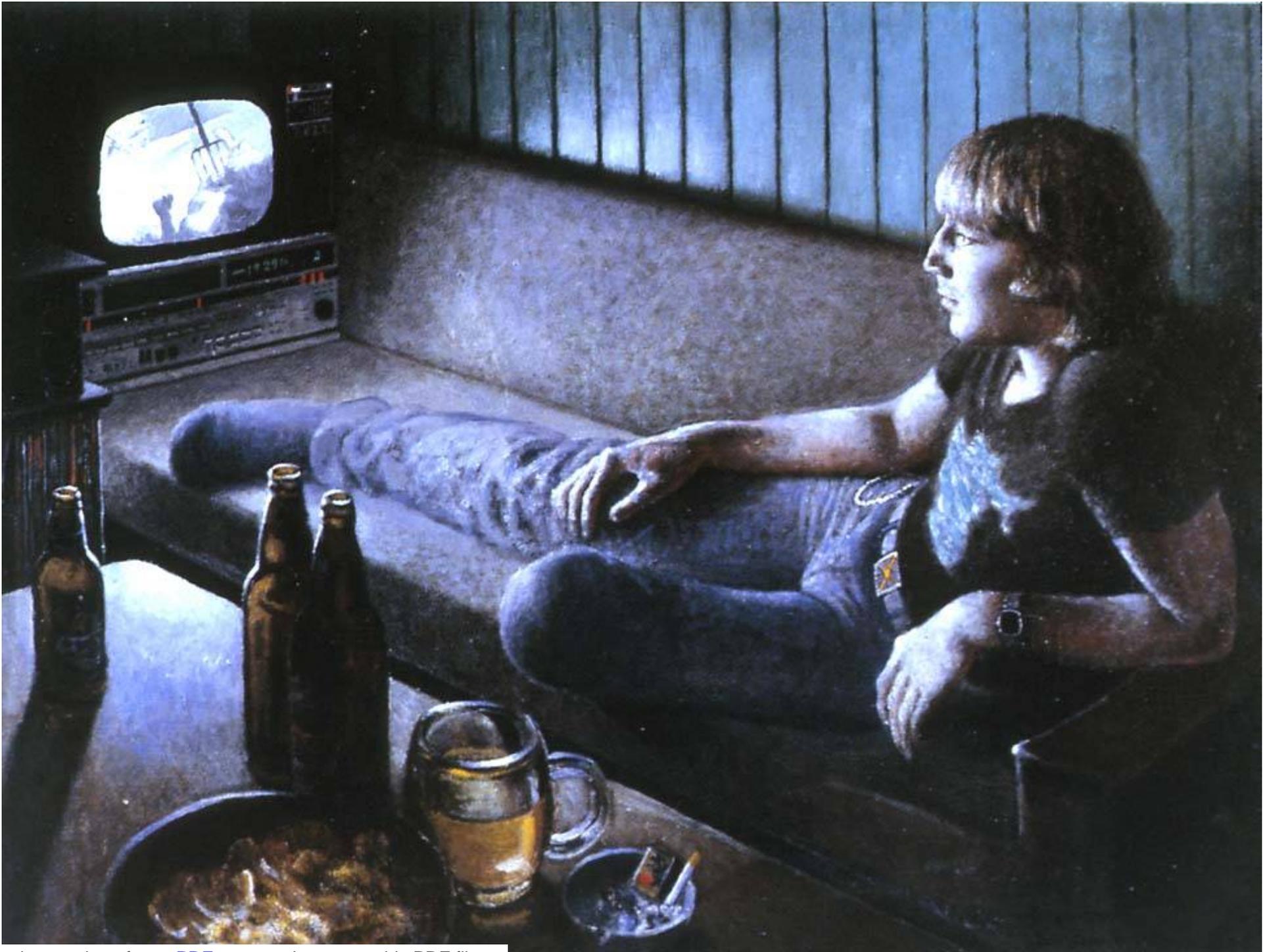
Effects of Witnessing Violence in the Home

Experiencing 'real' violence in the home has a considerable effect on the predispositions to violence in the child (Browne and Herbert, 1997; Browne, 1993; Jaffe, Wolfe and Wilson, 1990) which in turn could be reinforced by the violence on the screen.

Figure 1 Preference for violent films

Prefer violent films
- No
- Yes

Percentage (y-axis: 0, 10, 20, 30, 40, 50, 60, 70, 80)

- non-offender: No 45%, Yes 11%
- non-violent offender: No 22%, Yes 25%
- violent offender: No 33%, Yes 64%
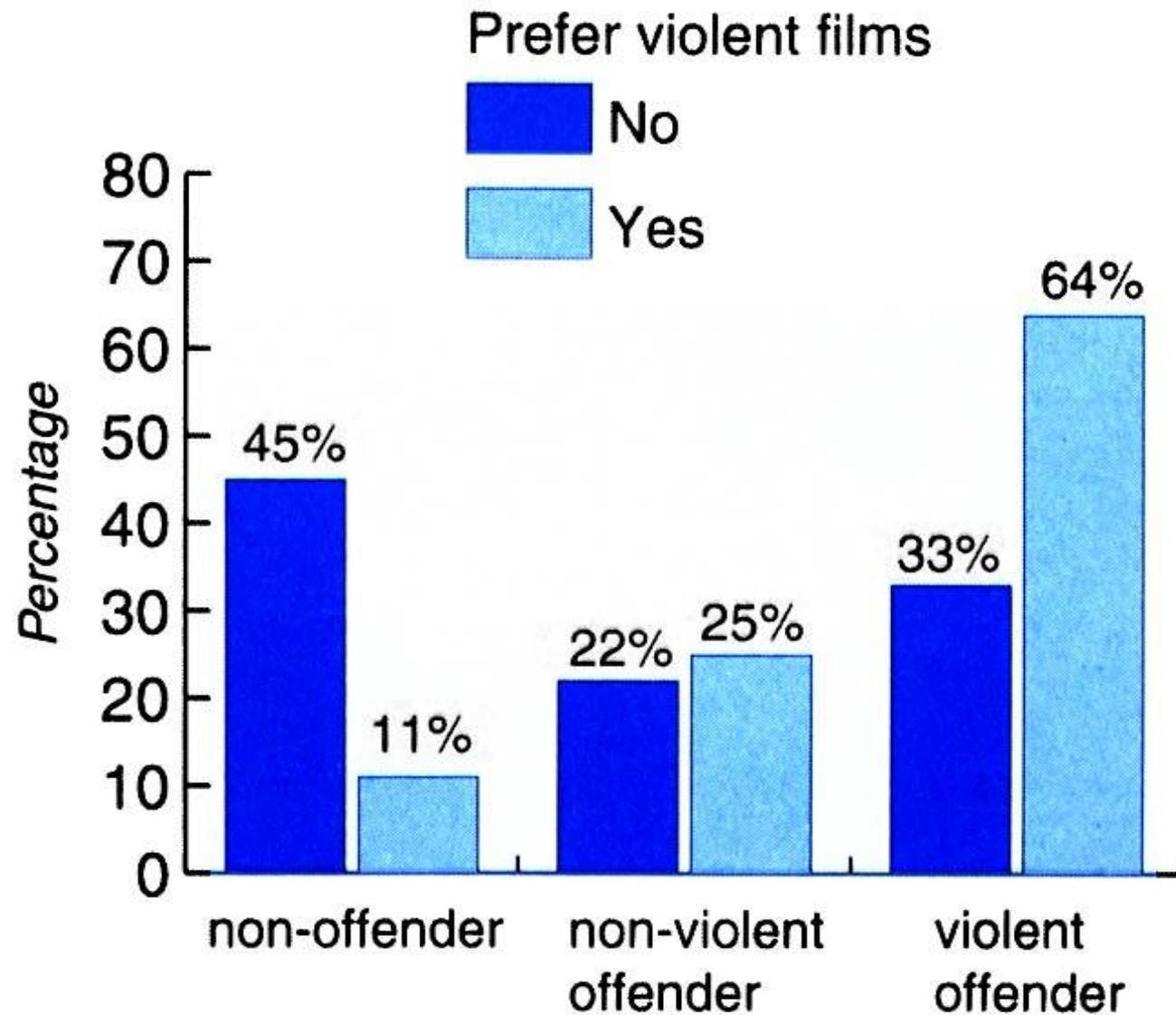
Figure 2 Victims of family violence by groups
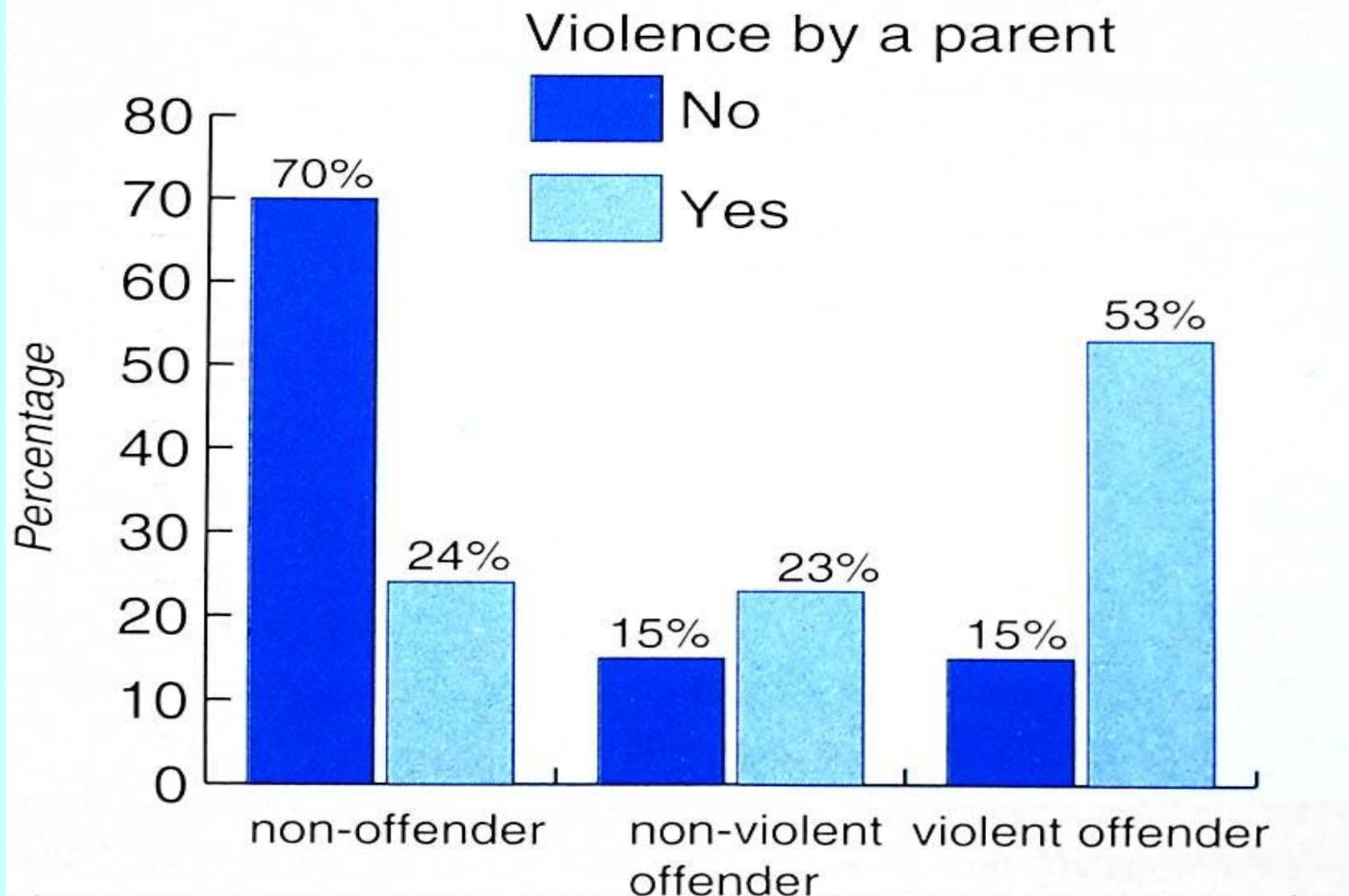
Study on Aggressive Youths

A study by Dorr and Kovanic (1981) found that more aggressive youth are more likely to be influenced by exposure to screen violence.

Adolescent Psychiatric Clinical Case Studies

Bailey (1993) investigated 40 adolescent murderers and 200 young sex offenders and claimed that repeated exposure to violent and pornographic videos was a significant factor in these crimes including in some cases actual imitation of the screen image.

# Figure 3 A tentative model for the development of preferences for violent films
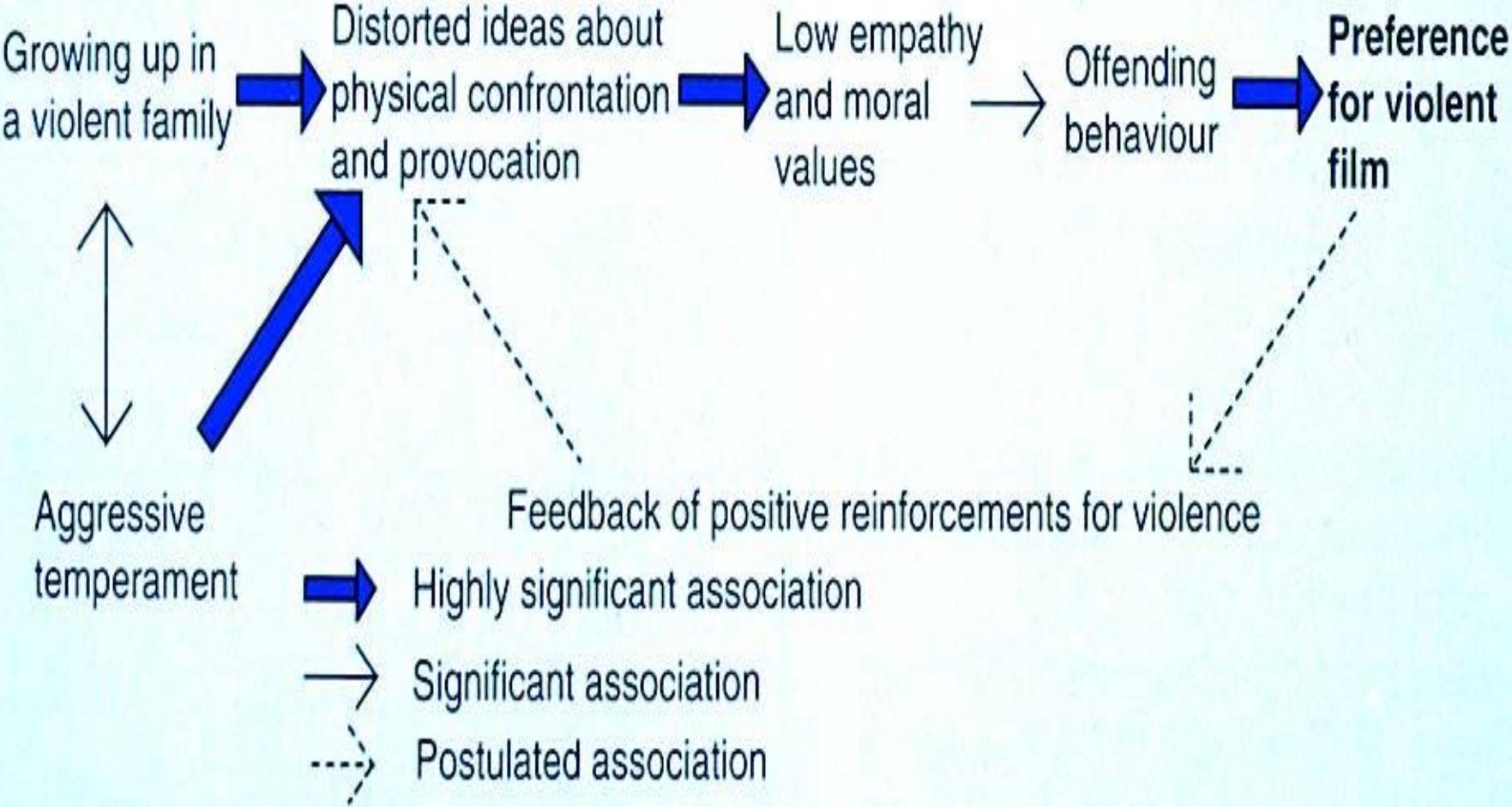
CONCLUSIONS

1. Victims of family violence are more likely to be involved in criminal activity.

2. Offenders show a greater preference and memory for violent film.

3. Hence, the chances of committing a violent act may increase in those predisposed to violence.

4. Violent images may therefore, increase the frequency of violent crime (among offenders), but not the number of people who commit violent assault.

Degree of Media Influence

- Screen violence account for up to 10- 12% of an individuals predisposition for violence.

- Young offenders may like violent videos because of their aggressive tendencies.

- Such tastes reinforce violent behaviour so that the chance of exhibiting violent behaviour become higher in aggressively orientated individuals.

Varied Diet Important

What types of TV shows & movies do kids spend the most time watching?

- action: 1329
- cartoons: 1115
- comedy: 1423
- drama: 358
- horror: 332
- music video: 1007

total votes=5564

number of kids (y-axis)

type of show (x-axis)
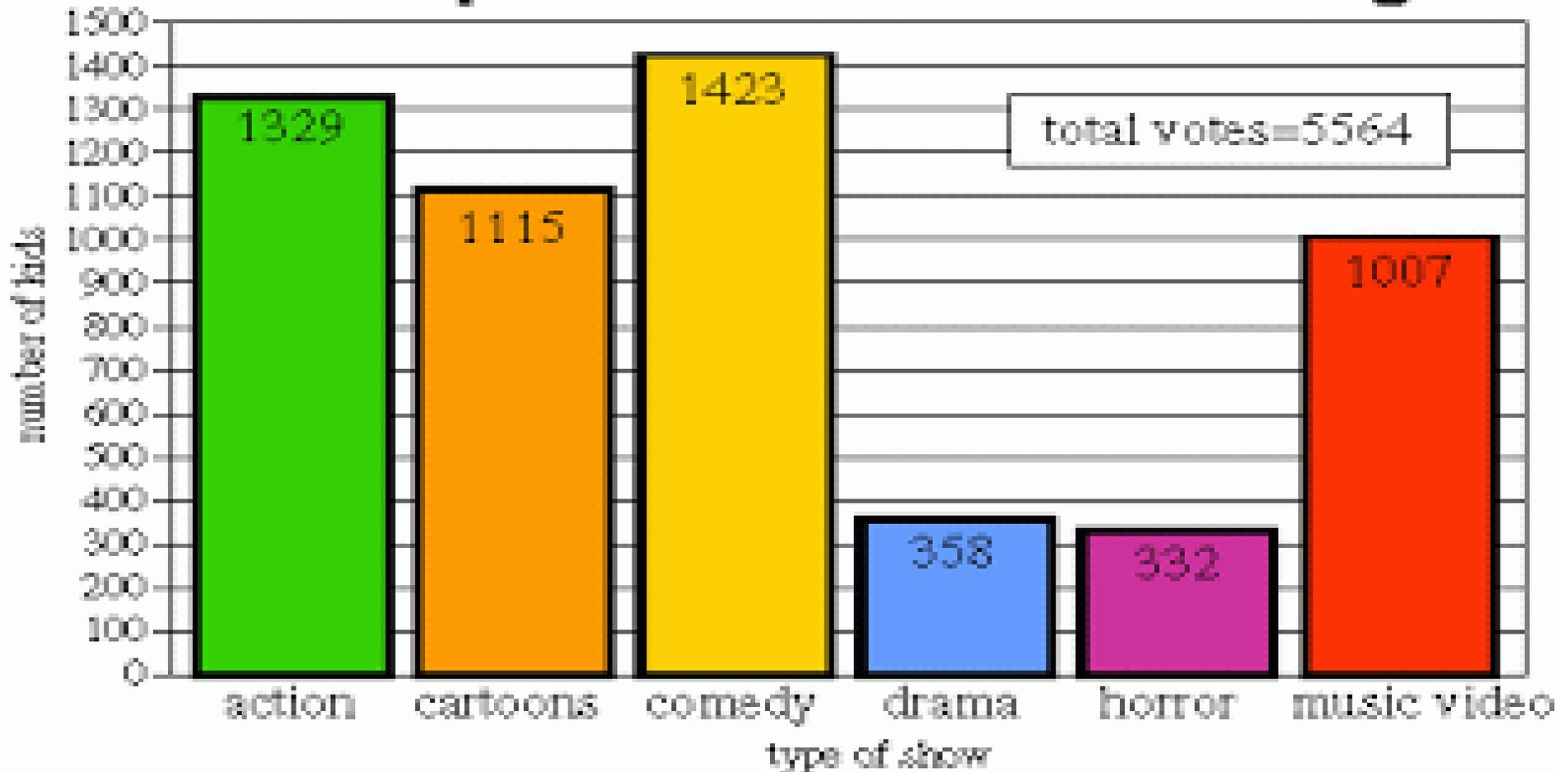
Desensitization to violent imagery

Brain activity in teen with low media violence exposure

Brain activity in teen with high media violence exposure
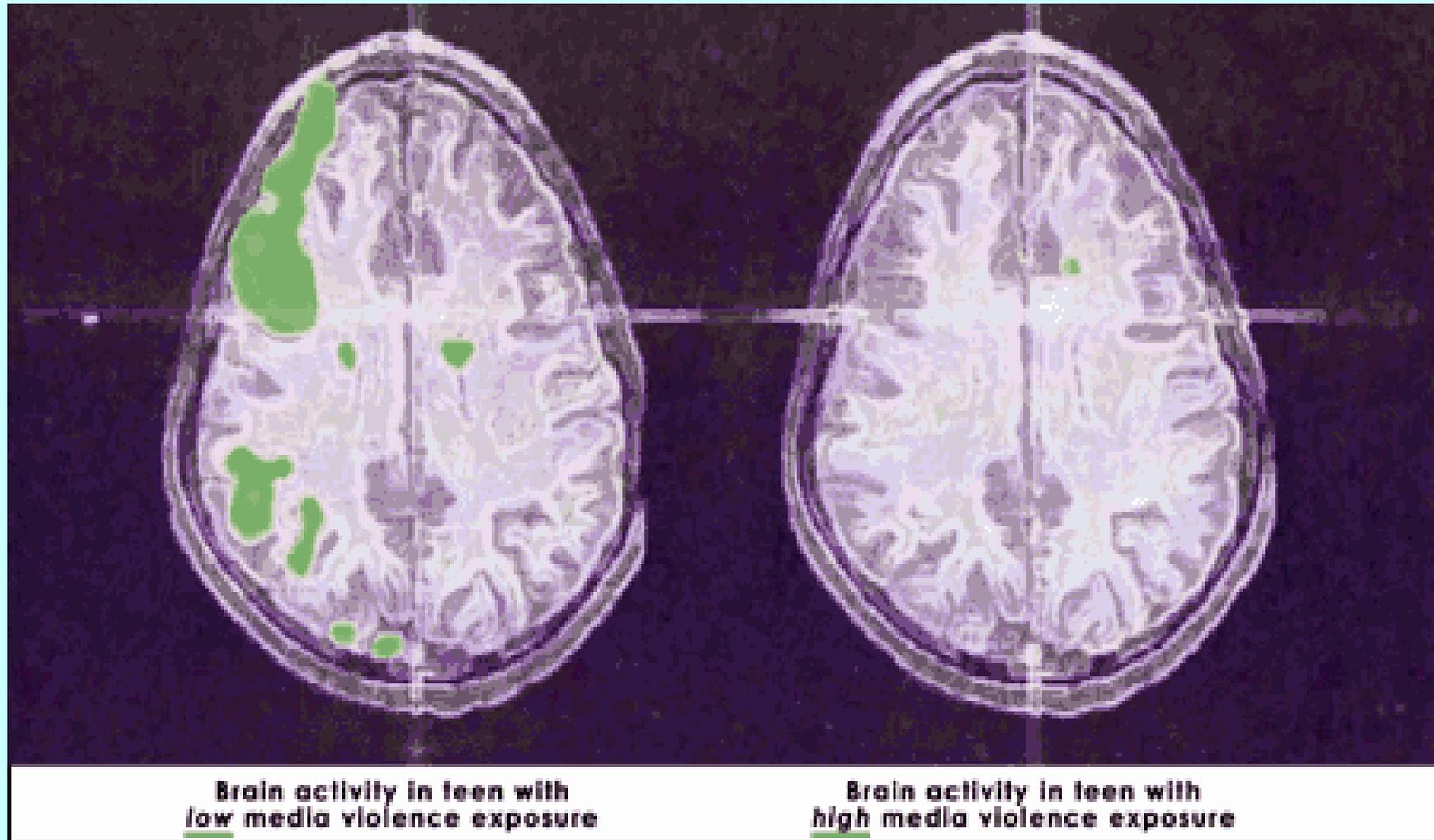
Effects of Video/DVD and Computer Games on Children in the USA (Interactive media)

- Meta-Analyses concludes a large number of studies support the findings that aggressive or anti-social behaviour can be increased in children and adolescents after playing violent video/DVD and computer games, d=0.27 (Anderson & Bushman, 2001; Anderson, 2005).

- Sherry (2001) meta-analysis effect size (d=0.30) noticed that the effect had risen over time (with year of study most predictive in a regression) perhaps reflecting greater realism in imagery over time.

- A quasi-systematic review (Bensley & VanEeywyk, 2001) reported 19 studies (1984 to 2000); 9 studies on young children (4-8yrs) showed an effect, 10 studies on older children and teenagers showed mixed findings with no clear evidence. The quality of all but 4 studies (4-8yrs) is in question.

General Aggression Model.

- The most commonly cited theory for explaining the effects of video game violence proposed by Bushman and Anderson (2001).

- Repeated exposure to violent games will lead to an increased aggressive personality through priming aggressive cognitions, increasing arousal, and creating aggressive states (Anderson and Bushman, 2002).

Desensitization Procedures → **Repeated violent game playing:**
Exposure to initially fearful stimuli in a positive emotional context
  *Humorous context
  *Cartoonish characters
  *Rewards for acting violently
  *Increasingly intense violent stimuli
    -Levels within a game
    -"E" to "T" to "M" games

Desensitization → Extinction of fear/anxiety reactions to violence (e.g., decreased heart rate reactivity)

Cognitive & affective outcomes →

| Decreased perception of injury severity | Decreased attention to violent events | Decreased sympathy for violence victims | Increased belief that violence is normative | Decreased negative attitudes towards violence |

The General Aggression Model GAM Episodic Processes

Behavioral outcomes →

Decreased helping
Lower likelihood of intervening
Delay in intervening

Increased aggression
Higher likelihood of initiating aggression
More severe level of aggression
More persistence in aggressing

**Video Game Sales Data and Youth Violence Rates**
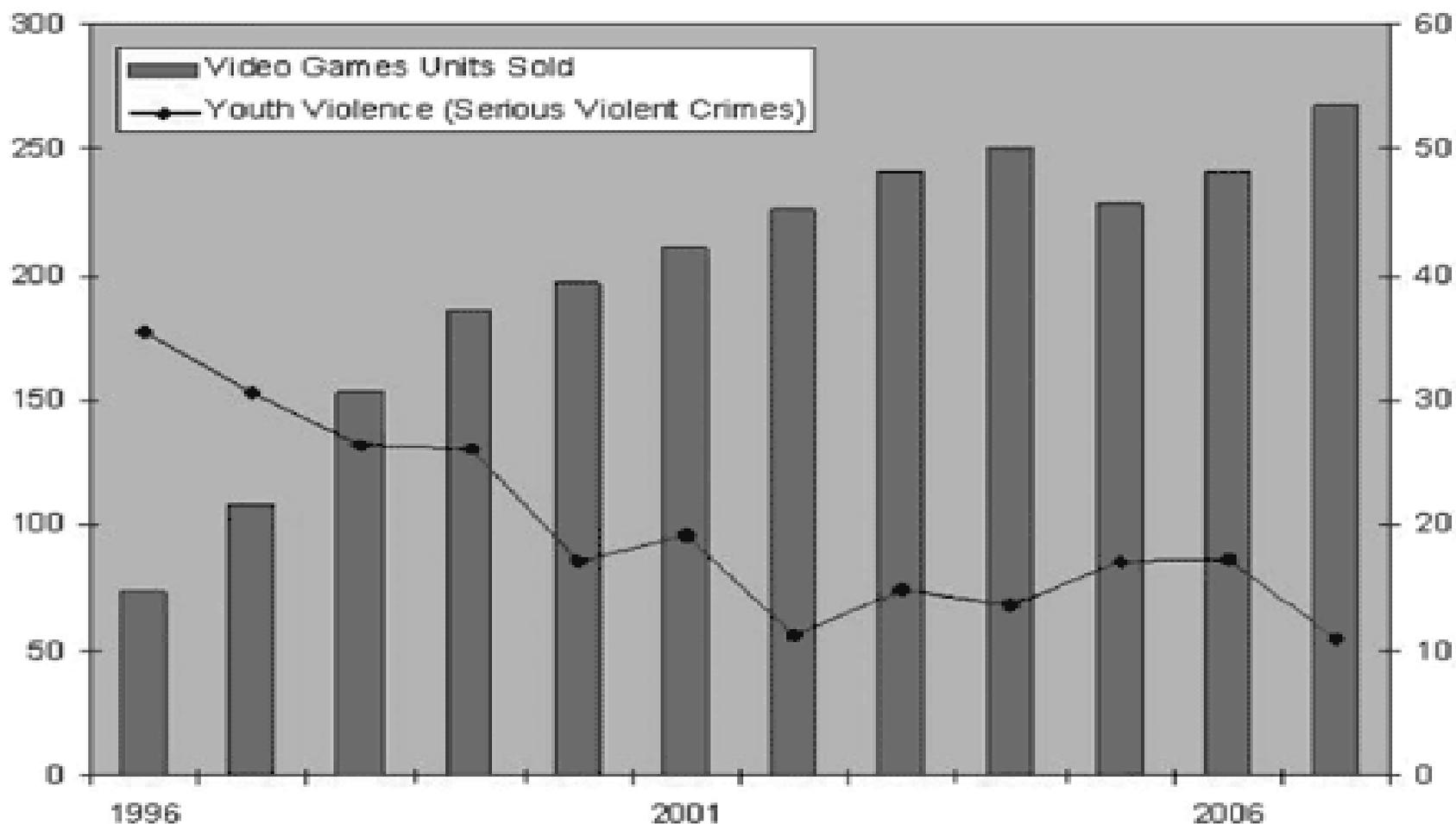
Video game sales data source: The NPD Group, Inc./Retail Tracking Service

Youth violence data source: Childstats.gov

Figure 3. Youth Violence and Video Game Sales Data.

Risk and resilience theory of aggression

- Others highlight that many people play violent games but are not violent (Kurtner and Olson, 2008).

- Gentile and Bushman (2012) argue that no one factor causes or prevents aggression. Video games should be seen as one risk factor. Not all people who play video games become aggressive, if other risk factors are absent or protective factor present.

Repeated violent game playing:
Learning, rehearsal, &
reinforcement of aggression-related
knowledge structures

| Aggressive beliefs & attitudes | Aggressive perceptual schemata | Aggressive expectation schemata | Aggressive behavior scripts | Aggression desensitization |

Increase in aggressive personality

Personological variables
e.g., Aggressive personality

Situational variables
e.g., Social situations
New peer group

General Aggression Model, as in Figure 1

System P
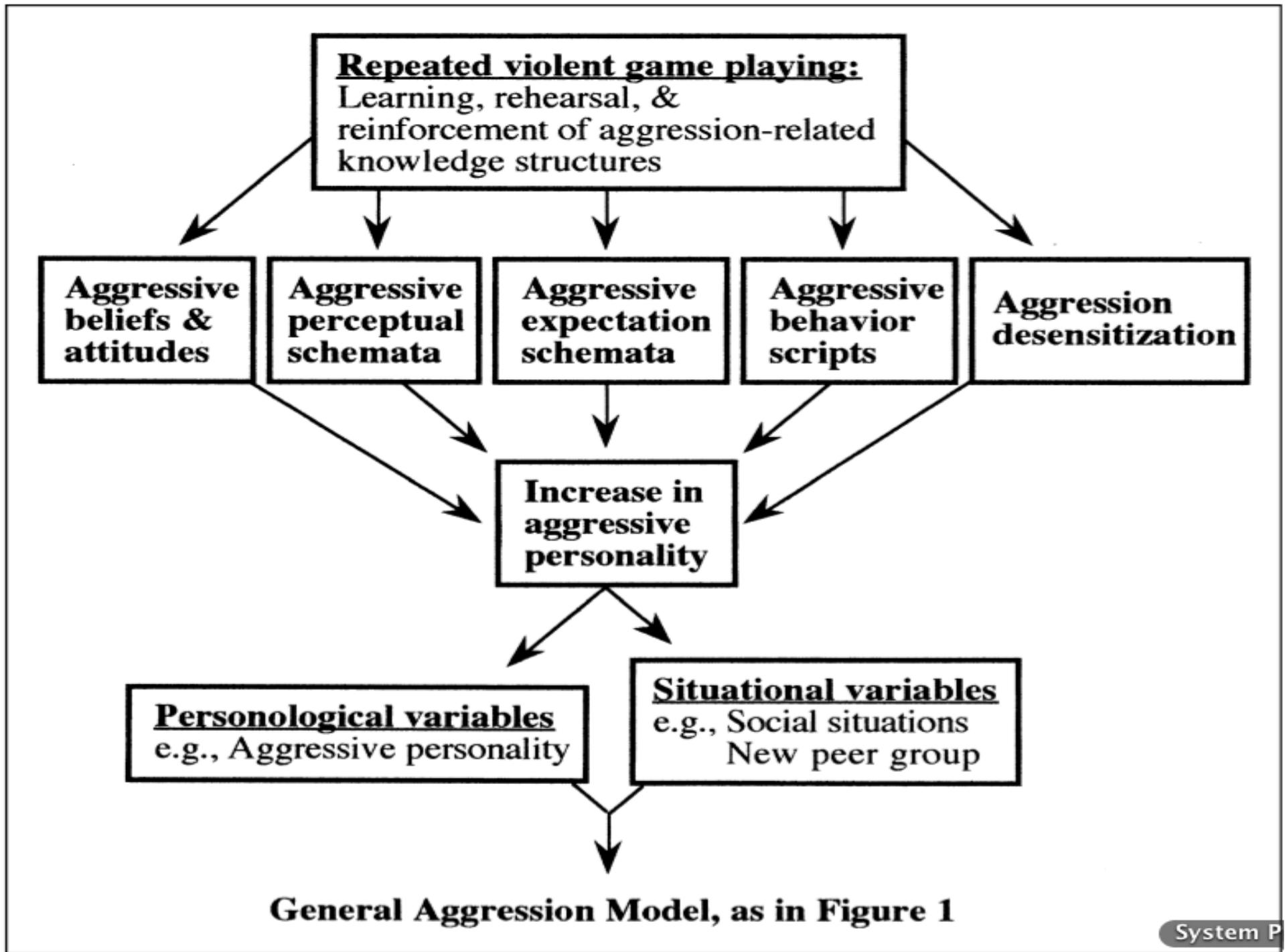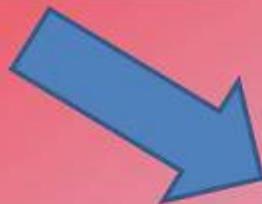
Third person perspective less influential
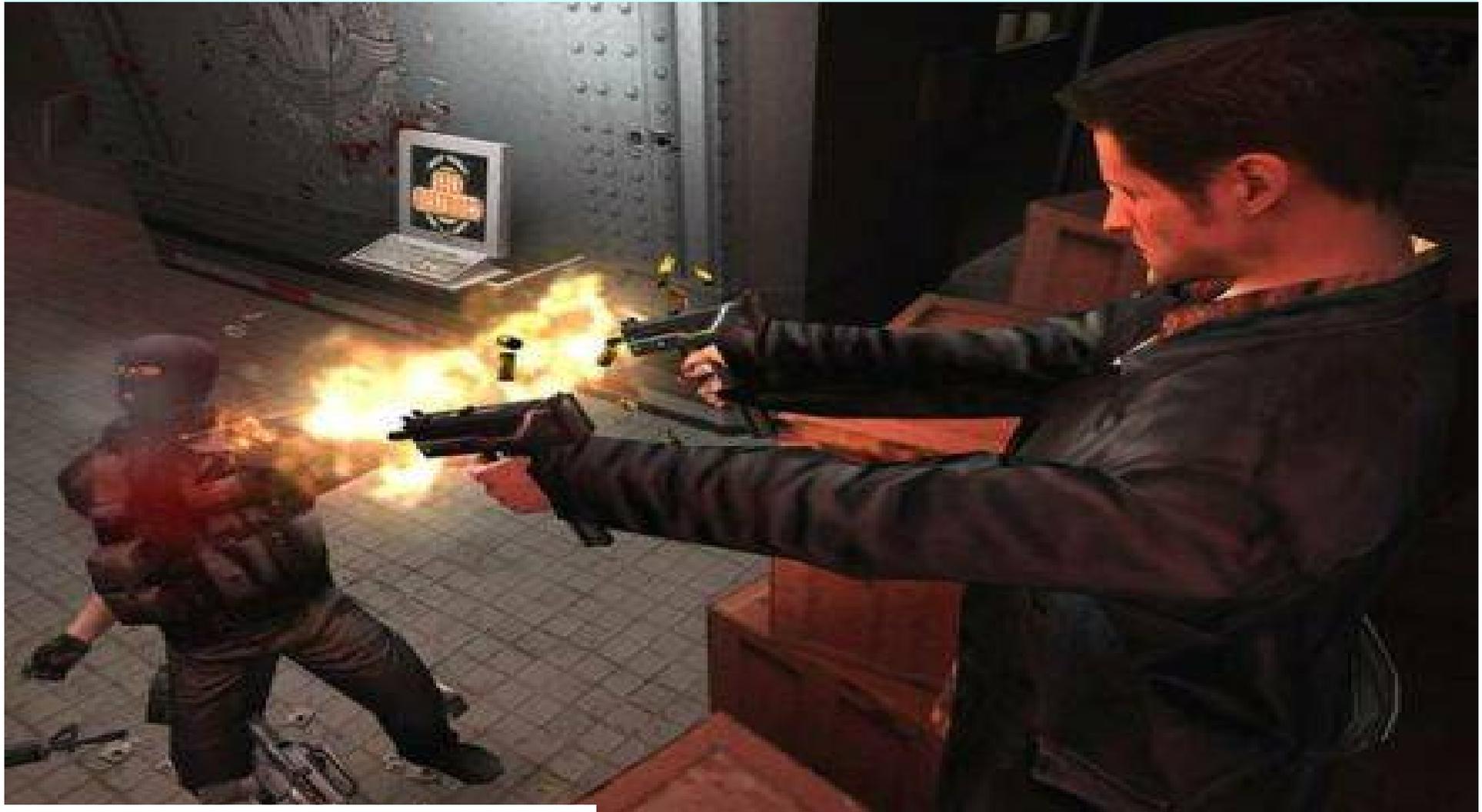
First Person Perspective more influential

International outcry over boy soldiers

Little concern over game play

Killing School Girl Idols (Sega Japan)

Sexual Contexts in popular games (eg; Grand Theft Auto)

Sex and Violent Imagery in Game play

Gamer acts out rape scene present in 18 ® Category

What influence on real dating?
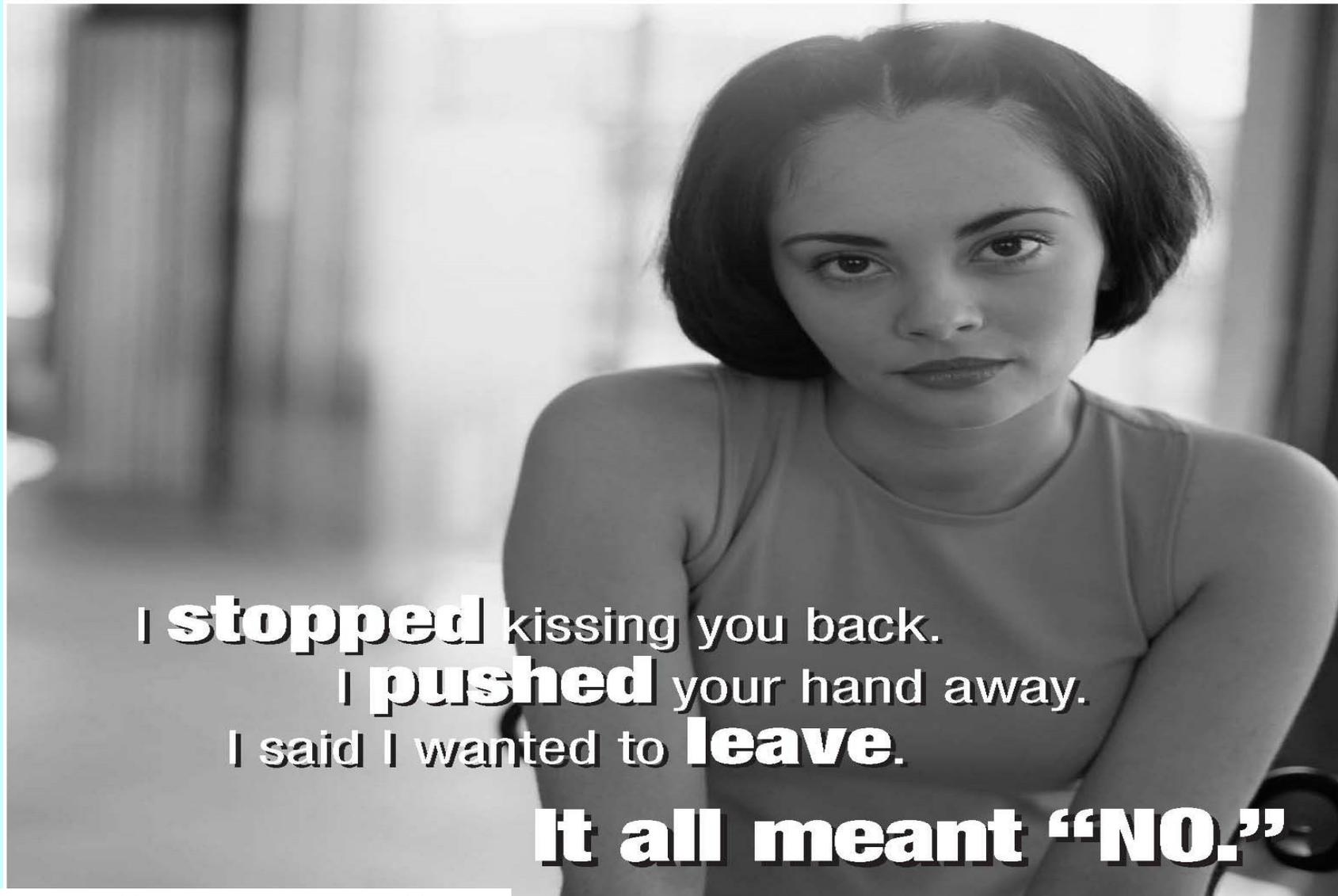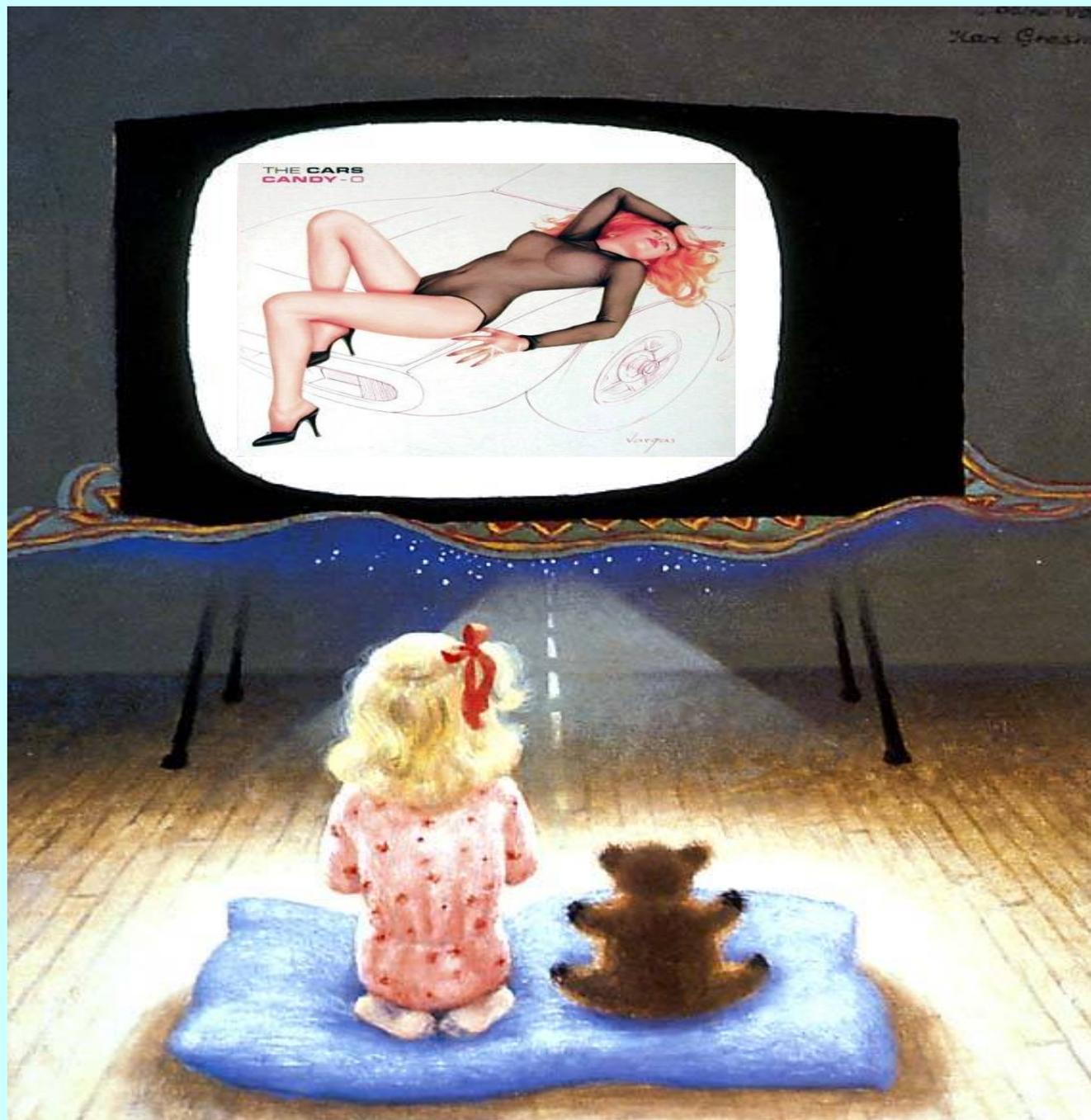
"Just playing my racing game mum"
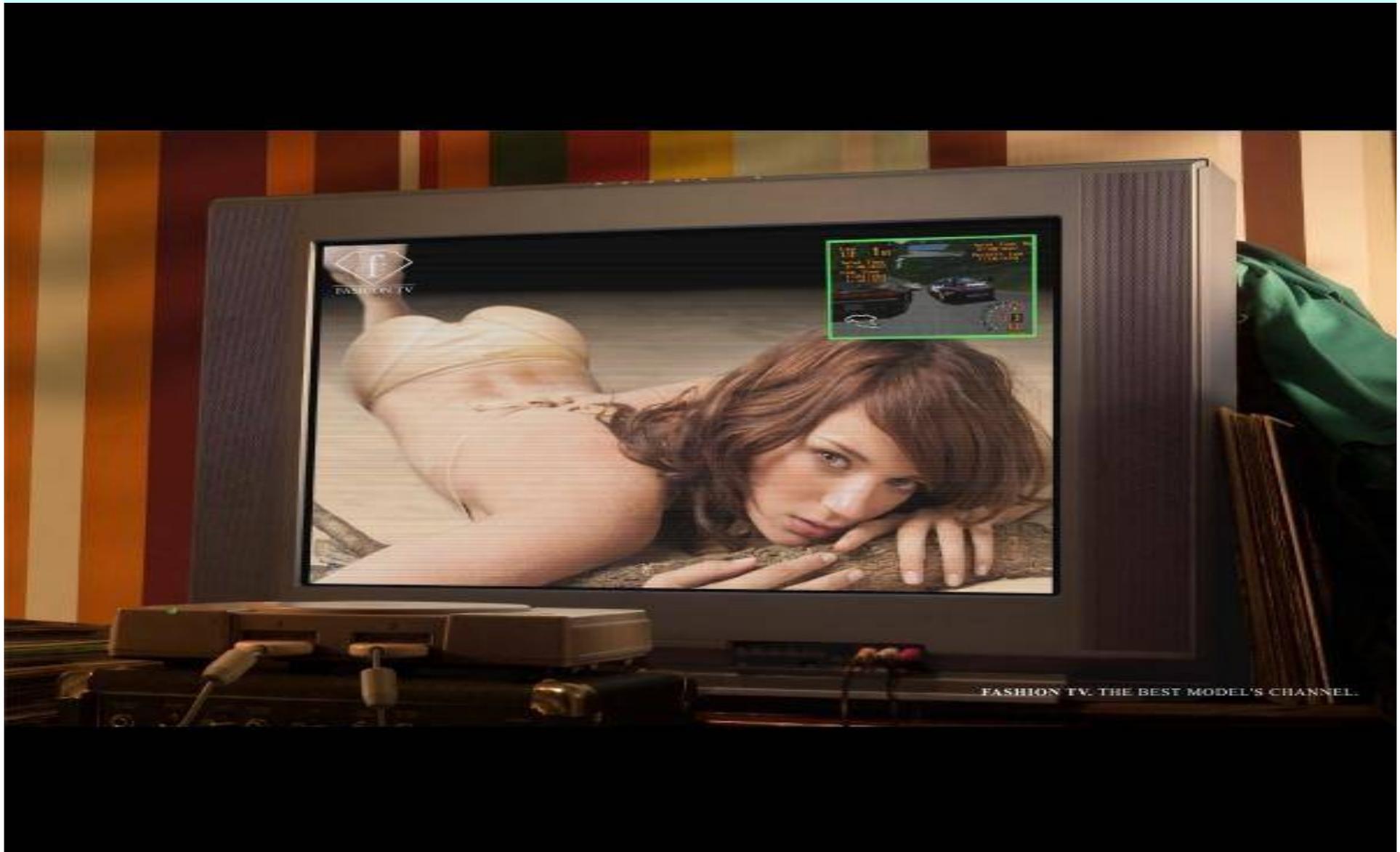
What Everyone Should Know About The Movie Rating System.

Self regulation by industry NOT effective for child protection

Tips for parents on video games and TV

- Know what your kids are playing and watching
- Know what's developmentally appropriate
- Set guidelines for the amount of time your kids can watch TV and play video games

Book References

Example

- https://www.youtube.com/watch?v=2saalZ5LNqo

-
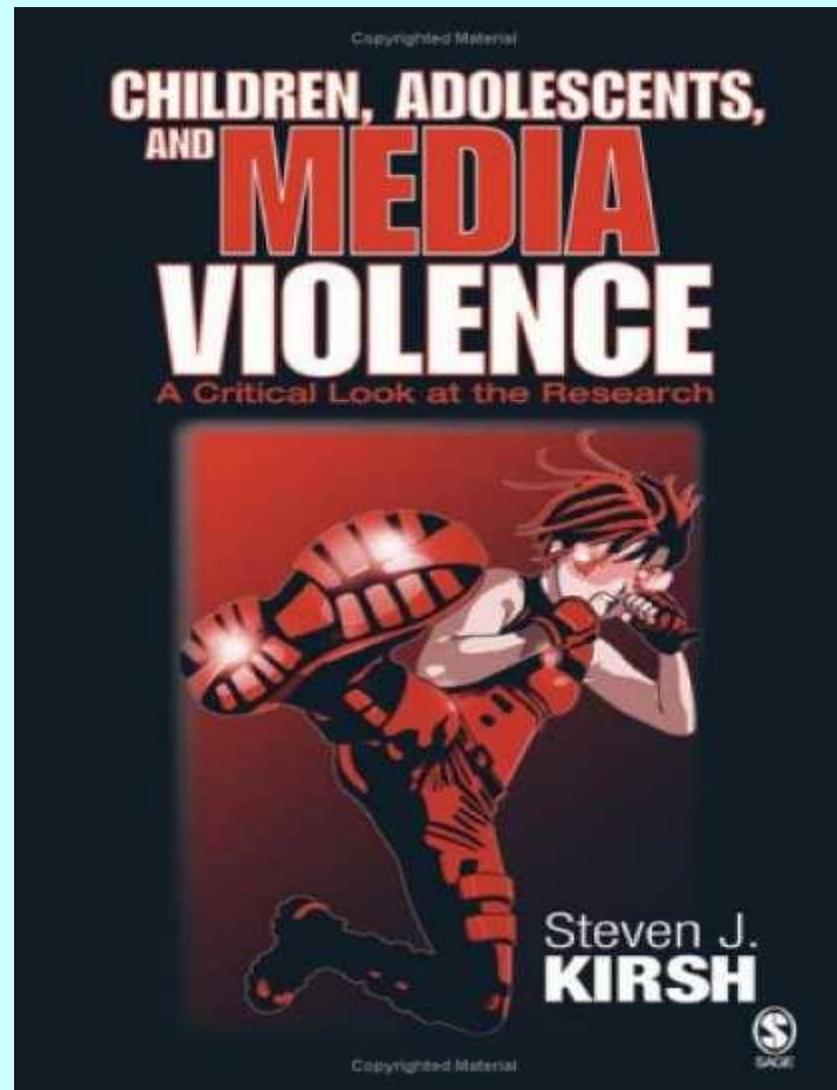
- 8 bit bastard violent computer game