

# Buff, Tough, and Rough: Representations of Muscularity in Action Motion Pictures

TODD G. MORRISON      MARIE HALTON  
*National University of Ireland Galway*

Although the muscular mesomorphic body may be the most common one appearing in mass media, the prevalence of muscularity and the ways in which this body is coded characterologically in motion pictures have not been investigated. To examine this topic, a content analysis was conducted on a random sample of top-grossing action films from 1980 to 2006. Results demonstrate that actors in this genre have shown a parallel trend toward increasing leanness and muscularity over the last several decades. As well, in comparison to their less muscular counterparts, those with muscular physiques were more likely to be romantically involved, evidenced higher levels of aggression, experienced more positive outcomes, and were more likely to be objectified.

*Keywords:* muscularity, body-image, content analysis, media, gender

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Body image may be understood as a multidimensional construct that represents how individuals “think, feel, and behave with regard to their own physical attributes” (Muth & Cash, 1997, p. 1438 as cited in Morrison, Kalin, & Morrison, 2004). Two basic attitudinal elements of body image are evaluation and investment. Evaluation refers to the self-appraisal of one’s appearance, which entails body-image satisfaction or dissatisfaction in relation to one’s internalised physical ideals. Investment refers to the cognitive and behavioural importance placed on one’s appearance, including appearance-related self-schemas (Jakatdar, Cash, & Engle, 2006). Given the connections between low body esteem and issues of public health (Vartanian, Giant, & Passino, 2001), body image has been a topic of vigorous examination for a number of years. A prominent theme that has emerged from decades of research is that the appearance-re-

Todd G. Morrison, School of Psychology, National University of Ireland Galway; Marie Halton, School of Psychology, National University of Ireland Galway.

Correspondence concerning this manuscript should be addressed to Dr. Todd G. Morrison, Department of Psychology, University of Saskatchewan, Saskatoon, SK, S7N 5A5, Canada. Electronic mail: Todd.Morrison@usask.ca

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lated messages provided by various socialisation agents within one's culture may influence both the evaluation and investment components of body image (Vartanian et al., 2001).

Some researchers contend that men's body image evaluation is becoming progressively more negative (Pope et al., 2000) and, as a result, men's level of body image investment is intensifying (e.g., Morrison, Morrison, & Hopkins, 2003). These observations may be supported, in fact, by research on the drive for muscularity, which is defined by Morrison and colleagues (2003) as "the desire to achieve an idealised, muscular body type" (p. 113). The most desirable body shape for men emphasises muscle mass and physical bulk, what researchers refer to as the muscular mesomorph (Mishkind, Silberstein, & Moore, 1986 as cited in McCreary & Sasse, 2000). As there is little requirement for men in modern Western society to possess large muscles, men's striving for the muscular mesomorphic ideal suggests that their attitudes toward the body have undergone a profound shift, from predominantly instrumental to predominantly ornamental (Morrison et al., 2003).

In the current study, the prevalence and characterological representations of muscular performers appearing in top-grossing action motion pictures was investigated. This genre was chosen because it appears to be particularly relevant to young men. For example, among a small sample of teenage boys, Ging (2005) found that the most popular category of film was action (60%), followed closely by comedy (54%). Male-oriented genres and stereotypical representations of masculinity were strongly evident in participants' tastes and preferences across all media forms especially in relation to motion pictures. Participants also had a very clear idea regarding the gendering of film: when asked what genres they thought appealed most to men, 80% said action (Ging, 2005).

To provide a framework for this investigation, the remainder of the Introduction focuses on research concerning media representations of the male body. Prior to discussing this research, however, two caveats must be issued. First, by focusing on mass media, we are not suggesting that it is the only factor that influences men's body image evaluation and investment. Indeed, other factors such as peers and family have been found to be influential (e.g., Ricciardelli, McCabe, & Banfield, 2000). Second, we are not proposing that exposure to specific categories of media invariably affects how men perceive themselves physically. The putative consequences of media exposure must be understood within a complex bi-directional model that incorporates myriad individual difference variables (e.g., self-esteem). However, with these caveats issued, it is important to note that mass media are often regarded as "probably the most powerful conveyors of sociocultural ideals [in terms of appearance]" (Tiggemann & Slater, 2003, p. 49). Thus, the ways in which media directed at men represent the male body is a critical topic for inquiry within the field of men and masculinity.

### Media and the Male Body

Similar to women who use the "ideal" female physique promoted by mass media as a referent point when assessing their own attractiveness, men also may be suscepti-

ble to examining their physique through the lens of media imagery. Possible implications of doing so include: a heightened drive for muscularity, elevated body dissatisfaction, engagement in various behavioural practices designed to increase muscle mass (e.g., weight training and creatine consumption) (Cafri et al., 2005) and, potentially, muscle dysmorphia (see Olivardia, Pope, & Hudson, 2000, for diagnostic criteria). As has been documented in women (Brownell & Rodin, 1994 as cited in Lorenzen, Grieve, & Thomas, 2004), the cumulative effect of media exposure to idealistic bodies could lead to men evidencing “normative” discontent with their physique.

Research in the area of body image has tended to focus on women because the pressures to obtain and maintain the ideal body shape are perceived to be less pronounced for men (Lorenzen et al., 2004). Consequently, the role of mass media in men’s body image concerns has not received the same amount of empirical attention, particularly with respect to the shape dimension of muscularity. However, in recent years, social scientists have begun to close this gap by documenting men’s desire to enhance their muscularity (e.g., Hatoum & Belle, 2004; Hildebrandt, Langenbucher, & Schlundt, 2004; McCabe & Ricciardelli, 2003; Pope et al., 2000) and the prevalence of the muscular mesomorph in cultural artefacts (e.g., mass media). The latter strand is relevant to the current study and, thus, will be reviewed briefly.

Research suggests that the muscular mesomorphic body may be the most common one appearing in mass media. For example, Kolbe and Albanese (1996) reported that less than 10% of men appearing in solo advertisements in six male-oriented magazines possessed either endomorphic (i.e., fat) or ectomorphic (i.e., thin) bodies. Similarly, Lin (1998) content analysed 505 commercials appearing on three major television networks (ABC, CBS, and NBC) during prime-time hours in the spring of 1993. Results indicated that a majority of the male actors appearing in prime-time commercials were muscular (30.4%), whereas much smaller proportions were classified as skinny (4.4%) or chunky (8.7%). Recent research on magazine content has shown that there is a preponderance of muscular male images, particularly in magazines targeting men (Friedrick, Fessler, & Haselton, 2005).

Changes in the ideal body type also have been documented in action toys (Pope, Olivardia, Gruber, & Borowiecki, 1999), models from *Playgirl* magazine (Leit, Pope, & Gray, 2000), and male models in magazine advertisements (Hatoum & Belle, 2004). For example, Leit et al. (2000) documented the increasing “denseness” or concentration of muscularity of the male centrefolds in *Playgirl*. They found that, in some cases, the physiques presented were so large and muscular that they suggested the use of anabolic steroids. An analysis of the evolution of the physiques of top-selling action toys (e.g., GI Joe) over a period from 1964 to 1998, found that modern action figures are larger and more muscular than previous versions of the same characters (Pope et al., 1999).

Media adoption of this more muscular body type as the cultural ideal for men (e.g., Klein & Shiffman, 2006; Pope et al., 2000; Smolak, Murnen, & Thompson, 2005) has implications for men’s body-image. For example, Hatoum and Belle (2004) found that men who read more male-directed magazines (e.g., *Achilles Heel*, *Esquire*, *Loaded*, and *Men’s Fitness*) also used more beauty products, took more dietary supplements to

build muscle, spent more time exercising, were more likely to hold a gym membership, more frequently endorsed the positive attributes of muscularity, had a higher personal drive for muscularity, and endorsed other attitudes and behaviours related to muscularity and fitness. Studies also reveal that a higher level of male-directed magazine readership correlates with a stronger desire to improve one's body, particularly one's muscularity (Hatoum & Belle), and that exposure to music videos (another source of idealistic imagery concerning the body) correlates with the use of dietary supplements to build muscle (Hatoum & Belle).

Smolak and colleagues (2005) found that media, peer, and parental influences made independent, additive contributions to boys' use of muscle-building techniques. These techniques were conceptualised as similar to eating disturbances in that they denote a body-change strategy intended to meet a culturally defined ideal (Smolak et al.). Media also showed up repeatedly as an important correlate of muscle building particularly steroid use (Smolak et al.).

Experimental evidence, which permits one to make causal inferences, also reveals that exposure to the muscular mesomorphic ideal found in mass media increases body dissatisfaction (Hildebrandt et al., 2004; Leit, Gray, Harrison, & Pope, 2001; Lorenzen et al., 2004). For example, Lorenzen et al. demonstrated that even brief exposure (i.e., approximately 10 minutes viewing advertisements as PowerPoint slides) may be related to negative body image evaluation in men.

It should be noted that media messages directed toward men increasingly promote an ideal male body that is impossible for most men to achieve (Hatoum & Belle, 2004). With the increasing audience for male-directed media such as magazines, television programmes, music videos and film, it becomes increasingly important to understand how the media affect *both* men and women's body image (Hatoum & Belle). Whereas women may compare themselves to "Victoria Beckham," men may long to have a physique similar to "Vin Diesel."

In recent years, a considerable amount of research has been conducted on the impact of media with respect to promoting "ideals" for physical appearance (e.g., Herbozo, Tantleff-Dunne, Gokee-Larose, & Thompson, 2004). Most studies published on this subject have focused on characters' weight-related status. Research has shown that print and electronic media all emphasise what has come to be termed the "thin ideal." That is, media promulgate the messages that it is good to be thin and that being thin is associated with a variety of positive traits such as popularity, likeability, and intelligence (Klein & Shiffman, 2006). For example, in their study of 1018 major television characters (male and female) on prime-time television, Greenberg and associates (2003) concluded that overweight characters were less likely to be considered attractive than those who were not overweight, and they were less likely to interact with romantic partners or display physical affection. In addition, overweight and ectomorphic males were less likely to commit violent acts, less likely to date and less likely to engage in sexual relations than those of average weight.

Exposure to these stereotypes likely models and reinforces the association between muscularity in men and characteristics such as physical attractiveness, desirability, per-

sonal self-worth, and success (Garner, Garfinkel & Olmsted, 1983 as cited in Fouts & Burggraf, 1999). Research conducted by Lerner and colleagues in the 1960s and 1970s (as cited in Cafri & Thompson, 2004) supports the notion that a muscular appearance is idealised and is overwhelmingly assigned personality traits with positive connotations (e.g., attractive, strong, happy), whereas skinny and obese body types are ascribed personality traits with negative connotations (e.g., lazy, cheats, sneaky). Thompson and Tantleff (1992) found that participants of both sexes evaluated male figures with muscular chests as more assertive, athletic, sexually active, confident, and popular. Negative descriptors such as “lonely” and “depressed” were assigned to the figure possessing the least muscular, or most ectomorphic, chest.

There are several questions left unanswered by available research on muscularity and mass media. The frequency and degree of muscularity presented in media such as motion pictures is unknown. Content analyses of women’s physical appearance in media such as television, films, cartoons and magazines have revealed increasing thinness over the past several decades (Andersen & DiDomenico, 1992; Fouts & Burggraf, 1999; Klein & Shiffman, 2006). However, no content analyses have been conducted investigating trends in the depiction of male characters’ weight and muscularity. Additionally, the characterological representations of muscular bodies that are promulgated by motion pictures have not been investigated. To determine whether mass media play a role in the tendency to derogate non-ideal bodies, one must examine the *types* of men that are over- and underrepresented in film and the ways in which ectomorphic, mesomorphic, and endomorphic characters are portrayed. If thin and overweight males receive less visibility than their muscular counterpart, viewers may internalise the message that non-muscular bodies receive less media attention because they are inferior. Similarly, if the characterisations of those who deviate from the muscular ideal are consistently negative (or, at least, less positive than the characterisations of those who are ideal), viewers may normalise the message that being non-muscular is bad (Morrison et al., 2003).

### Hypotheses

It is hypothesised that actors appearing in action motion pictures have become more lean and muscular over the last several decades (H1). Given Western culture’s idealisation of the muscular mesomorphic ideal, muscular physiques also are hypothesised to be associated with more positive attributes. In accordance with research conducted by Fouts and Vaughan (2002), Greenberg and colleagues (2003), and Smith and colleagues (1999), the attributes examined in this study are: degree of aggressiveness, likelihood of having a romantic partner, likelihood of engaging in sexual interactions, and attainment of a favourable outcome. Specifically, it is hypothesised that muscular males will be more likely to: a) have a romantic partner (H2); b) engage in sexual interactions (H3); c) experience favourable outcomes (H4); and d) display higher levels of aggression (H5). It also is hypothesised that as age increases, muscularity will decrease and body fat will increase (H6 and H7, respectively) and that those who are more muscular are more likely to be objectified (H8).

## Method

For the present study, action movies from 1980 to 2006 were included in the sample. To compile a representative pool of films, the researchers started from the assumption that more popular motion pictures (i.e., those that draw the largest audiences) would have a greater impact and, thus, were more important to examine than lesser-known films. Using comprehensive electronic databases (*Box Office Mojo* and *The Numbers*), films chosen for the study sample were selected randomly from among action titles listed in the 150 top-grossing films produced between the years 1980<sup>1</sup> to 2006.

As the purpose of this study was to investigate the medium's depiction of muscular versus non-muscular men, only action films in which the leading characters were male were targeted. Other exclusion criteria were as follows: foreign films (e.g., *Bead-shah*), films where action played only a minor role (e.g., *Top Secret*), children's films (e.g., *Cloak and the Dagger*), animated films (e.g., *G.I. Joe: The Movie*), animal films (e.g., *K-9*) and limited releases (e.g., *The Toxic Avenger: Part 2*). The total number of films retained was 577.

A stratified random sampling procedure was carried out selecting a minimum of three films (approximately 11% to 38% of the sample) for every second year from 1980 to 2006. Specifically, all top-grossing films that were identified as action motion pictures were assigned a random number. Next, three numbers were selected randomly, and the films corresponding to those numbers were picked. The researchers then confirmed the availability of these titles. If available, they were selected for the final list of films; if not, another random number was chosen and this film's availability was verified. This stratified random sampling procedure was necessary because disparate numbers of action films were produced in different years (i.e., more films in this genre were produced from 1991 to 2006 than from 1980 to 1990 [ $M_s = 22.2$  and  $18.3$ , respectively]); thus, there was the risk that a non-random sample might have led to an over-representation of certain years.

The final sample was composed of 42 top-grossing action films available for purchase or obtained from online rental agencies or local DVD stores. The sample provided 4,508 film minutes. A complete list of the films is provided in Appendix A.

### *Coder Training*

There was one primary coder, with a second person being used to assess inter-rater reliability. Prior to beginning their viewing and coding work for this study, the raters spent time familiarising themselves with the rationale underlying the coding of each piece of information and the decision-making procedures that should be used when

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<sup>1</sup> The year 1980 was chosen as the starting point because many films produced prior to this time are not available on DVD.

recording information from each film. In order to maximise consistency, rating guidelines were used. Ratings were recorded on sheets designed for efficient scoring with definition summaries at the bottom for easy reference. To make sure that the raters involved in the data collection process implemented the decision-making procedures in a similar manner, inter-coder reliability coefficients (i.e., Krippendorff's alpha) were calculated on a small percentage of the final sample.

Each film was examined using the standardised coding sheet. The variables of interest were: degree of muscularity and body fat, character status (major versus minor), age, race, aggression, likelihood of having a romantic partner, sexual behaviours, degree of objectification and the character's outcome. Each of these variables is outlined briefly.

### *Body Shape*

For classifying a character's body shape, both degree of muscularity and body fat were taken into consideration. Specifically, body shape was coded by visually comparing each character's body and shape to the Bodybuilder Image Grid (BIG-O) developed by Hildebrandt and colleagues (2004). This instrument consists of two scales that vary along the dimensions of muscularity (latitudinal scale) and body fat (longitudinal scale). From left to right, the columns increase in body fat from 1: "extremely low body fat" to 6: "extremely high body fat." From top to bottom, the figures increase in muscle mass from 1: "extremely low muscle mass" to 5: "extremely high muscle mass." The use of these two scales permits one to categorise individuals as muscular/non-muscular and as lean/fat. The BIG-O has good to excellent test-retest reliability and good convergent and divergent validity (Hildebrandt et al.).

### *Major versus Minor Characters*

Major and minor characters were differentiated because the former have a much greater and more consequential impact upon a film's storylines and messages than the latter. Therefore, criteria were used that would enable the character types (i.e., major and minor) to be distinguished easily and in a meaningful way. Each character's role in the film was rated as major/primary if he appeared in the top five actors listed in the billing at the start/end of the film. Characters were classified as minor/secondary if they were below the top five billing. A maximum number of six characters and a minimum of two were coded for each film.

### *Age*

The instructions given were to estimate the chronological age of the character being portrayed, rather than the age of the actor (McIntosh, Bazzini, Smith, & Wayne, 1998). In certain cases, this information was provided in the film itself; however, most often, raters estimated age.

### *Race*

The character's race was categorised as follows: Caucasian, African American, American Indian, Asian or Hispanic.

### *Aggression*

Aggressiveness was defined as physical or verbal abuse of other people (e.g., slapping, punching, kicking, and use of weapons, verbal assault, homonegative comments, and rape). The presence of these aggressive acts was noted along with the total number of incidents. In their examination of smokers in popular film, McIntosh and colleagues (1998) used similar codes for aggression.

The measure for physical aggression consisted of four items (slapping/hitting, kicking, punching/boxing, and other). The measure for use of weapons also consisted of four items (brandishing a weapon, inflicting injury with a weapon, causing death with a weapon, and firing a gun). To ensure that summing these items was appropriate, Cronbach's alpha coefficients were computed. The reliability co-efficient for the physical aggression measure was  $\alpha = .89$  (95% CI = .86 – .92) and the reliability co-efficient for the weapons measure was  $\alpha = .80$  (95% CI = .75 – .84). The measure for verbal aggression consisted of two items (verbal assault and homonegative comments). To ensure summing these items was appropriate, a Pearson correlation coefficient was computed. The correlation was statistically significant,  $r(157) = .32, p < .01$ , suggesting that summation was appropriate.

### *Likelihood of Having a Romantic Partner*

The following three variables concerned romantic relationships: 1) whether the character was married/divorced/widowed/single; and 2) a character's real or implied romantic involvement on a scale ranging from 0 (no involvement) to 10 (high romantic involvement). Similar indicants of romantic status were employed by Greenberg et al. (2003).

### *Sexual Behaviour*

The number of times the character (major or minor) engaged in sexual intercourse (either shown or visually implied) was measured.

### *Attainment of a Favourable Outcome*

The outcomes of all coded characters were listed and, subsequently, categorised as either positive or negative.

### *Objectification*

Exhibiting one part of the body rather than a whole, complete human is considered objectification (Sommers-Flanagan, Sommers-Flanagan, & Davis, 1993). Examples

would be shots of bare stomachs, the chest, genital area, buttocks, and thighs. Camera shots of the top half of a person or the person's whole face as a close-up are not considered objectification. For the purpose of this study, objectification was defined as instances in which the camera focuses on an isolated body part and the number of times the character's body was exposed (i.e., the number of times the character appeared shirtless, naked, with torn clothes or trouser-less). To ensure that combining these items was appropriate,  $\alpha$  Cronbach's alpha was computed. The reliability co-efficient was  $\alpha = .84$  (95% CI = .80 – .88).

## Results

Inter-rater reliability (i.e., the agreement observed among independent observers) was computed on a small percentage (10.5%) of the films coded using Krippendorff's alpha (Hayes & Krippendorff, 2007). The more observers agree on the data they describe, the more comfortable one can be that their data are reproducible and trustworthy (Hayes & Krippendorff). This measure was chosen as it generalises across scales of measurement; satisfies all of the most important criteria for a good measure of reliability; and is the standard reliability statistic for content analysis (Hayes & Krippendorff). By convention, perfect agreement is set at 1.00 and the absence of agreement is typically indicated by 0.00.

On several occasions, the two raters met and compared their coding of randomly selected films. Minor discrepancies were noted, primarily in terms of estimated age and placement of body shapes on the BIG-O, and resolved by mutual agreement. Krippendorff's alpha then was computed and found to be 1 for all variables apart from verbal assault ( $\alpha = 0.99$ , 95% CI = 0.90 – 1.0) and homonegative comments ( $\alpha = 0.98$ , 95% CI = 0.93 – 1.0).

A total of 159 characters were analysed and coded. In terms of physical appearance, 76.1% were muscular; 65.4% were of low body fat; and 65.4% were estimated to be under the age of 40 ( $M = 38.26$ ,  $SD = 10.88$ ). A majority of the characters were Caucasian (74.8%), with smaller proportions being African American (15.1%); African Indian (1.3%); Asian (6.3%); Hispanic (1.9%) and "other" (.6%). On the indices of aggression, 56% engaged in verbal aggression; 69.8% participated in the use of weaponry; and 61.4% displayed physical aggression. Finally, 68% of the characters coded were not in a romantic relationship, and 49% had positive outcomes.

*H1.* To gauge whether the body represented in action films has become progressively more idealistic, Pearson's product-moment correlation coefficients were conducted to examine the association between year of production and both body fat and muscularity. As predicted, body fat and year of production correlated negatively,  $r(157) = -.20$ ,  $p < .01$  whereas muscularity and year of production correlated positively,  $r(157) = .19$ ,  $p < .05^2$ .

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<sup>2</sup> In a study carried out by Hildebrandt and colleagues (2004), it was found that there was a moderate correlation between body fat and muscularity ( $r = -.42$ ), which is consistent with the male desire to be more lean and muscular.

*H2.* A chi-square test was used to see if there was an association between muscularity and the likelihood of having a romantic partner. A significant association was observed,  $\chi^2(1, N = 159) = 6.08, p = .01, \text{Cramer's } V = 0.2^3$ . Of the muscular characters, 37% were in a relationship and 63% were not in a relationship. For those categorised as non-muscular, the proportions were 16% (relationship) and 84% (no relationship).

An independent-samples t-test then was conducted to evaluate the hypothesis that muscular characters are more romantically involved than non-muscular characters. A statistically significant difference in romantic involvement was noted between muscular and non-muscular characters,  $t(150.57)^4 = 6.34, p < .01, d = .92$ . The descriptive statistics show that those in the muscular group had higher levels of romantic involvement ( $M = 3.31, SD = 4.01$ ) than their non-muscular counterparts ( $M = .50, SD = 1.55$ ).

*H3.* An independent-samples t-test was used to investigate whether muscular characters are more likely than non-muscular characters to engage in sexual interactions. A statistically significant difference was obtained,  $t(149.43) = 3.98, p < .01, d = .54$ , with muscular characters engaging in sexual intercourse more often ( $M = .31, SD = .72$ ) than non-muscular characters ( $M = .03, SD = .16$ ).

*H4.* A chi square test was used to investigate whether an association existed between a character's outcome (positive/negative) and his degree of muscularity. Results indicated a statistically significant association,  $\chi^2(1, N = 159) = 15.67, p < .01, \text{Cramer's } V = .31$ . Specifically, among muscular characters, 58% experienced a positive outcome; in contrast, among non-muscular characters, this proportion was much lower (21%).

*H5.* An independent-samples t-test was conducted to evaluate the hypothesis that muscular characters are more likely than non-muscular characters to display physical aggression. A statistically significant difference was noted,  $t(132.48) = 7.21, p < .01, d = .94$ , with muscular characters being more likely to engage in physical aggression ( $M = 19.07, SD = 25.16$ ) than non-muscular characters ( $M = 2.13, SD = 3.34$ ).

A similar analysis was used to determine if muscular characters are more likely than non-muscular characters to display higher levels of verbal aggression and to use weapons. For verbal aggression, no statistically significant difference was obtained,  $t(82.43) = 1.9, p > .05, d = .28$ . However, for weaponry, results indicated that muscular characters were more likely to use weapons ( $M = 21.44, SD = 22.04$ ) than non-muscular characters ( $M = 6.61, SD = 10.06$ ),  $t(136.81) = 5.74, p < .01, d = .87$ .

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<sup>3</sup> Cramer's V is a chi-square-based measure of association ranging from 0 to 1.0, with higher values representing a greater effect size (Norusis, 2000).

<sup>4</sup> Levene's test for equality of variance was carried out for all independent t-tests and when violated the degrees of freedom were subsequently adjusted.

A series of independent samples t-tests also were used to evaluate whether lean characters evidenced greater levels of aggression (i.e., use of weapon, physical aggression, and verbal aggression) in comparison to their fatter counterparts. Results indicated that, in comparison to their fat counterparts, lean characters were: 1) more likely to use weapons,  $t(155.18) = 6.35, p < .01, d = .95$ ; 2) more physically aggressive,  $t(109.75) = 7.37, p < .01, d = 1.03$ ; and 3) more verbally aggressive,  $t(155.47) = 2.22, p < .05, d = .34$ . Means and standard deviations for each indicant of aggression are provided in Table 1.

Table 1  
*Means and Standard Deviations (M [SD]) for Aggressive Behaviour*

Form of aggression	Lean characters	Fat characters
Physical	21.68 (26.10)	2.43 (3.48)
Use of weapons	23.66 (22.55)	6.98 (10.54)
Verbal	1.61 (2.10)	1.02 (1.22)

*H6 & H7.* Pearson's product-moment correlation coefficients were computed to see if muscularity and body fatness were associated with characters' estimated age. A negative correlation existed between estimated muscularity and chronological age,  $r(157) = -.37, p < .05$  whereas, for body fatness, the correlation was positive,  $r(157) = .63, p < .05$ . Thus, in comparison to their younger counterparts, older characters appearing in action films are more likely to be non-muscular and fat.

*H8.* A Pearson's product-moment correlation coefficient was computed to test for an association between objectification and muscularity. A positive correlation was noted,  $r(157) = .30, p < .05$  (i.e., objectification increased as muscularity increased). A statistically significant positive correlation also was noted between objectification and year of production,  $r(157) = .20, p < .05$ . Finally, a statistically significant negative correlation was noted between objectification and fatness,  $r(157) = -.37, p < .01$ . Thus, while muscular characters appearing in action films were more likely to be objectified, heavier characters were not.

## Discussion

The current study analysed the depiction of male characters appearing in top-grossing action films from 1980 to 2006. Its primary purposes were to assess: a) whether this genre of motion picture disproportionately represents the idealised male physique (i.e., the muscular mesomorphic build); and b) the characteristics associated with this body type. Results pertinent to each of these purposes will be outlined briefly.

Based on this content analysis, it appears that central characters were overwhelmingly muscular and lean, with peripheral (or secondary) characters also reflecting this trend. The increasing importance of the muscular mesomorphic ideal is apparent from the high level of objectification of this particular body shape. These body types are consistently seen as objects of desire and as vehicles of exhibit: of musculature, beauty, and physical feats of gritty toughness (Cohan & Hark, 1993). Muscularity is seen as a powerful symbol of desire and a sign of power (Holmland, 2002). The conflation of masculinity and muscularity, which is evident in action films, underscores Watson's (2000) observation that "men have come to be defined, even constrained, both by their physiology and related behavioural characteristics" (p. 43). In this respect, Connell (1995) contends that "true masculinity" is almost always thought to proceed from men's bodies.

Findings also were consistent with the hypothesis that characters' muscularity and leanness (i.e., the extent to which they embodied the ideal physique) would be significantly associated with aggression, romantic involvement, sexual activity, and attainment of a positive outcome. Action films do not present body image ideals in isolation, but rather present more complex cultural scripts that link certain body images to positive or negative traits. For example, Western culture values relationships and it was found that muscular males were more likely than their non-muscular counterparts to have a romantic partner and be sexually active.

However, we observed that masculinity is presented as revolving around one particular discourse of male sexuality: the desirability of sexual relationships with no emotional ties. Most of the male action films we reviewed were notable for being almost devoid of women's voices or discussion of women as anything other than objects of desire. Relations with women were very focused on sex, and women were only of interest for this reason. This may be because female friendships are viewed as feminising and "homosexualising" and excessive heterosociality is seen to threaten men's heterosexual and masculine credentials (Flood, 2003); credentials which are vital in the action genre.

It should be noted that the *majority* (68%) of muscular characters were not involved in any type of romantic relationship. Thus, based on the films analysed for content in this study, the action genre appears to represent a cinematic space largely devoid of women. Future research is needed to examine this issue more closely. However, it is possible that male characters' appearance in this category of film is sufficient to connote heterosexual masculinity. If so, the presence of women, albeit in the limited role of object of desire, may be seen as superfluous.

The results demonstrate that male action heroes are being projected as stereotypes of "male-maleness." They are more likely to be seen as muscular, lean, physically aggressive and as entities rather than whole complete persons. It is clear that dominant cultural meanings of "what it means to be a man" have shifted in the context of male action films, and that such shifts have played a central role in the articulation of male-maleness. In particular, male bodies, as represented by Western culture, have undergone a profound change—from predominantly instrumental to predominantly ornamental. Furthermore, male characters must conform to the ideal body shape of increasing muscu-

larity and decreasing body fat. Thus, it appears that media portrayals of men's bodies are becoming increasingly restrictive.

The hypothesis that muscular males are more likely to experience a positive outcome also was supported. Thus, the message that a particular body type can pave the way to success or failure may be reinforced, as is the message that muscular is "good" and that positive outcomes are only possible for males who achieve this type of body. The hypotheses that muscularity would decrease with age, and body fat would increase with age, also were supported. Perhaps this is because Western culture values youthfulness over old age and, therefore, youths are more likely to be muscular and lean whereas older men are more likely to be depicted as non-muscular and overweight.

Muscular males were more likely to display higher levels of physical aggression and use more weapons. The desire for a lean muscular body build is intimately tied to cultural views of masculinity and the male sex role, which prescribe that men be powerful, strong and protective (McCreary & Sasse, 2000). However, muscular males were not more likely to display higher levels of verbal aggression. This might be a function of inadequate statistical power; however the effect size was similarly small ( $d = 0.28$ ). Another interpretation is that verbal aggression may not be seen as a very masculine form of aggression but rather may be regarded as weak or feminine.

The results imply that a greater proportion of top-grossing action films represent muscularity in a positive manner. Taken together, all of these findings culminate in an overarching message about the subjective qualities of muscular and non-muscular men: stated simply, the former is good, whereas the latter is not. Some may query why it is troublesome that muscular characters are positively stereotyped. However, Jones (2002 as cited in Ellis & Morrison, 2005) reported that positive stereotypes might be associated with prejudice. She argues that stereotypes irrespective of their valence tend to be rigid in structure and, thus, may restrict individuals' behavioural choices. Fundamentally, all stereotypes demand adherence to a prescriptive range of characteristics, which serves to restrain individuals' ability to be fully realised human beings (Ellis & Morrison). A prevalent and consistent focus on muscularity may have a powerful impact on self-esteem and interpersonal relationships among individuals who are non-muscular. Furthermore, it is important to note that the differences observed are not all positive (e.g., male characters engaged in high levels of physical aggression). However, within the context of this category of film, aggression is condoned, indeed expected, of a "real man."

Of course the mere presence of stereotypical portrayals in media tells us little about their influence. However, there is little doubt that mass media pervade the everyday lives of people living in Western societies. Mediated fictions offer men and women "the culture's dominant definitions of [itself]" (Gamman & Marshment, 1988, p. 2 as cited in Ging, 2005). They are also a highly responsive and expedient source of information with regard to how society is thinking and talking about recent changes in gender roles and body image (Ging). Action films are a promising genre to examine in the study of gender identities and relations because, arguably, they have the potential both to maintain and to affect cultural values and norms in society (Benwell, 2003). Through

theatres, on DVDs, cable and satellite broadcast, Hollywood films shape and express how we see or do not see our bodies (Holmland, 2002). Mass media including film constitutes a potent source of references for constructing a repertoire of acceptable codes and signifiers of masculinity. Thus the media can be said to function as a manual on masculinity (Strate, 1992 as cited in Ging).

Several limitations to the current study warrant mention. First, despite procedures designed to increase its rigour, content analysis remains a fairly subjective technique. One or more individuals operating within a specific sociocultural context may view certain text and images as disseminating a positive message about muscularity. Others, examining the same material, may perceive them in an entirely different manner. However, this study attempted to address this issue by computing inter-rater reliability for a small number of films. The second limitation of content analysis is that there is no “gold standard” with regard to defining major from minor characters, muscular from non-muscular, objectification and so forth. As with any content analysis, some researchers might prefer to see different operational definitions of the key concepts used. Third, it is unknown whether action films accurately mirror trends in other genres. Additional studies are needed to determine whether actors in categories of motion picture such as comedies and thrillers have shown a parallel trend toward increasing muscularity and leanness over the last several decades. Fourth, it is not clear to what extent these trends may be a cause or an effect of an evolving cultural emphasis on male muscularity. While it may be tempting to assert that action films both reflect and affect individuals’ perceptions of male body image and masculinity, experimental research is necessary to permit causal inferences. Finally, it is critical to acknowledge that we are providing *one* interpretation of the muscular physique; namely, that within contemporary Western culture, this type of body appears to possess little instrumental value for most men and, thus, should be understood as decorative. Other means of coding muscularity (e.g., as a source of efficacy or empowerment)<sup>5</sup> are certainly possible and warrant future consideration.

### Conclusion

In summary, the results of this study demonstrate the comparative neglect of under-muscular and overweight males in action movies and the emphasis on leaner and more muscular men. Our findings also indicate quite clearly that action movies portray muscular males more favourably than their less muscular counterparts in terms of positive outcomes, physical aggressiveness, romantic involvement and sexual activity. Importantly, the preferential judgements and attributions bestowed on those who are “buff, tough, and rough” in action movies are out of concert with actual differences in ability, character and personality relative to non-muscular males

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<sup>5</sup> We thank an anonymous reviewer for making this observation.

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Appendix A  
Complete list of the films

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<i>The Hunter</i>	Paramount*	1980
<i>Mad Max</i>	AIP	1980
<i>The Octagon</i>	ACP	1980
<i>Conan the Barbarian</i>	Universal Pictures	1982
<i>Death Wish 2</i>	AFD	1982
<i>48 hrs</i>	Paramount	1982
<i>Missing in Action</i>	Cannon	1984
<i>The Evil that Men Do</i>	Columbia	1984
<i>The Terminator</i>	Orion Pictures	1984
<i>Highlander</i>	20 <sup>th</sup> Century Fox	1986
<i>Jake Speed</i>	Aquarius TV	1986
<i>No Mercy</i>	Columbia	1986
<i>Above the Law</i>	Warner Bros. Pictures	1988
<i>Alien Nation</i>	20 <sup>th</sup> Century Fox	1988
<i>Die Hard</i>	20 <sup>th</sup> Century Fox	1988
<i>Delta Force 2</i>	20 <sup>th</sup> Century Fox	1990
<i>Predator 2</i>	20 <sup>th</sup> Century Fox	1990
<i>Marked for Death</i>	20 <sup>th</sup> Century Fox	1990
<i>Batman Returns</i>	Warner Bros. Pictures	1992
<i>Lethal Weapon 3</i>	Warner Bros. Pictures	1992
<i>Under Siege</i>	Warner Bros. Pictures	1992
<i>Drop Zone</i>	Paramount	1994
<i>Blown Away</i>	MGM	1994
<i>The Cowboy Way</i>	Universal Pictures	1994
<i>Daylight</i>	Columbia	1996
<i>The Crow: City of Angels</i>	Buena Vista Home Video	1996
<i>The Ghost and the Darkness</i>	Paramount Pictures	1996
<i>Hard Rain</i>	Paramount Pictures	1998
<i>Knock Off!</i>	Sony Pictures Entertainment	1998
<i>The Avengers</i>	Warner Bros. Pictures	1998
<i>Gladiator</i>	DreamWorks Distribution	2000
<i>Supernova</i>	Imperial Entertainment	2000

*Continued on page 74*

*Appendix A, continued from page 73*

<i>The Art of War</i>	20 <sup>th</sup> Century Fox	2000
<i>Blade 2</i>	New Line Cinema	2002
<i>The Transporter</i>	20 <sup>th</sup> Century Fox	2002
<i>Spiderman</i>	Sony Pictures Entertainment	2002
<i>I Robot</i>	20 <sup>th</sup> Century Fox	2004
<i>Ladder 49</i>	Buena Vista Pictures	2004
<i>Paparazzi</i>	20 <sup>th</sup> Century Fox	2004
<i>Miami Vice</i>	Universal Pictures	2006
<i>Superman Returns</i>	Warner Bros. Pictures	2006
<i>Poseidon</i>	Warner Bros. Pictures	2006

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