Gender Oppression in Cinematic Content?
A Look at Females On-Screen & Behind-the-Camera in Top-Grossing 2007 Films

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"I long personally for the day when that modifier [women director] is a moot point. I anticipate that day will come. I think we're close. If 'The Hurt Locker' or the attention that it's getting can make the impossible seem possible to somebody, it's pretty overwhelming and gratifying. At least we're heading in the right direction."

Kathryn Bigelow
Los Angeles Times[1]
February 2, 2010 (¶2)

Introduction

Females represent just over half of the United States population. Yet their role in cinematic content does not reflect this reality. Looking at characters in films from 1946 to 1990, one study shows that females only occupy 25-28% of all parts.[2] Another study found that 32% of all primary and secondary roles are filled with females across 100 films released between 1940 and 1980. More recent data reveals a similarly lop-sided scenario, yielding roughly equivalent point statistics for females in film (27.3-32%).[3] Assessing over 15,000 speaking characters across 400 top-grossing theatrically released G, PG, PG-13, and R-rated films, Smith and her colleagues found 2.71 males appear for every one female.[4] Put another way, only 27% of all speaking characters in movies are girls or women. Significant but trivial deviation emerged in the percentage of females by Motion Picture Association of America (MPAA) rating. No change in the percentage of females materialized by release date across three distinct periods of time (i.e., 1990-95, 1996-00, 2001-06).

The nature or way in which females are presented on-screen is also problematic. Females are more likely than males to be young, thin, and shown in tight or revealing attire.[5] This prototype illuminates the hypersexualization of females in film, reinforcing a culture of lookism within the industry. Gender is also associated with patterns of domesticity. When compared to men, women are more likely to be relational partners and/or caregivers.[6]

Exposure to these trends may affect viewers in a variety of ways, as we have argued in other papers.[7] Viewing an imbalanced "reel" world may contribute to beliefs that girls/women's stories are not as important as boys/men's. This may have the strongest effect on children, who may learn something about gender roles from repeatedly viewing motion picture content on DVDs. Further, a steady diet of consuming skewed or stereotypical depictions of women as sexy or domesticated may facilitate the development and maintenance of attitudes, beliefs, and aspirations that are limiting.[8] Seeing skinny and sexy women may also have an affect on body image, especially among those viewers who compare themselves to idealized portrayals and perceive that their

bodies do not live up to the quixotic standards. Or, heavy exposure to beautiful and thin females may teach and/or reinforce males' unrealistic expectations about how the opposite sex should look or act.

Given this, the issue of gender roles in motion picture content clearly deserves on going empirical attention.   My research team has designed and executed our first – in a series of annual studies – detailed report assessing the status of females in popular 2007 films. We started in 2007 because our earlier work examined gender roles in films from 1990 to 2006.[9] That research was concerned with breadth, focusing on males and females in the highest earning films across 16 years. In this report, we turn to depth and examine character gender in the top-grossing movies in one particular year.

Our report contains three investigations. The first study is a content analysis of character gender in 100 films. In addition to prevalence, we also focus on context or the way in which characters are depicted across popular cinematic content. The second study is a look at the biological sex of decision-makers working behind the camera. We examine the prevalence of women working as directors, writers, and producers – the holy trinity of movie making -- in the top-grossing films. Turning from sheer numbers and quantitative patterns, the third study takes an in-depth qualitative look at the movies in the sample with female protagonists. Across this small subset of films, we explore the types of gals that propel action from plot point one to the dénouement.

Study 1
Marc G. Choueiti & Stacy L. Smith, PhD.

This study examines gender roles in 100 popular films released in 2007, based on cumulative box office revenue as compiled by Nielsen EDI Film Source. A total of 15 companies theatrically released the films between January 1st and December 26th 2007 in the United States and Canada (see Appendix A for list). The list contained one documentary (i.e., *Sicko*). Given that documentaries often capture live or unfolding "real world" events rather than purely creative and fictionalized stories, we excluded this genre from analysis. As such, our study only focuses on the most popular fictional fare from 2007.

We evaluated every distinct on-screen speaking character in the list of films. Only those single characters that spoke one or more words overtly are coded for demographic [10] (e.g., sex, age, parental status, relational standing) and appearance-related [11] (e.g., sexual revealing attire, nudity, thinness, attractiveness) information. All coding took place in our lab at the Annenberg School for Communication & Journalism by 66 undergraduate research assistants during the 2009 calendar year. Each term, a group of coders trained in a classroom environment for several weeks and completed lab assignments prior to evaluating the sample of films. Acceptable reliability on unitizing characters and assigning values to variables emerged prior to coding.[12] Once coding began, a minimum of five research assistants evaluated each film in the sample with reliability estimated on the number of characters coded and variable decisions per film.[13]

Prevalence. Our results show that 70.1% of characters are male (*n*=3,071) and 29.9% are female (*n*=1,308). This calculates into a ratio of 2.35 males for every one female in 100 of the top-grossing films in 2007. We sorted films by MPAA rating to see if gender differs by movie certification. No significant difference surfaced: G=26.3% females, PG=31.3% females, PG-13=31.1% females, and R=28.2% females.[14]

We also explored whether the frequency of males to females varied by genre[15] and a notable difference materialized.[16] Animated (20.9%) and action/adventure (25.8%) films featured the smallest percentage of female characters. The three remaining genres feature females in 30% or more of all speaking roles (horror/thriller= 30.7%, drama=32%, and comedy=33.5%).

Differences in gender also appeared by company.[17] A total of 15 companies distributed the top 100 films, as identified by the Nielsen EDI list. In making sense of the findings, it is important to keep in mind sample size. Small sample sizes can yield unreliable estimates and thus may reveal more about a film or group of films' idiosyncratic tendencies regarding gender rather than a company's ethos about including girls and women in their plot lines.

Table 1
Percentage of Males and Females by Distributor

Distributor	# Films	% of Males	% of Females
Sony	15	70.2% (*n*=408)	29.8% (*n*=173)
Paramount	11	74.2% (*n*=460)	25.8% (*n*=160)
Disney	10	71.9% (*n*=305)	28.1% (*n*=119)
WB	16	67.3% (*n*=430)	32.7% (*n*=209)
Universal	11	74.9% (*n*=435)	25.1% (*n*=146)
Fox	9	75.0% (*n*=309)	25.0% (*n*=103)
New Line	6	64.4% (*n*=161)	35.6% (*n*=89)
MGM	7	65.2% (*n*=182)	34.8% (*n*=97)
Lionsgate	6	57.5% (*n*=138)	42.5% (*n*=102)
Other	9	68.8% (*n*=243)	31.2% (*n*=110)
Total	100	70.1% (*n*=3,071)	29.9% (*n*=1,308)

To deal with this, the following stipulation guided our interpretation of the results: only companies featuring more than 175 characters are assessed for gender prevalence. This number is derived by taking the total number of characters coded (*n*=4,379) and dividing by the number of films in the sample (*n*=100), yielding an average number of characters per film (43.79). We then multiplied this number by 4, to approximate the frequency of characters seen across various films. Using this standard, we will not comment on gender prevalence in companies that only feature a few films and a minimal number of characters in the sample. As such, 9 films released by 6 companies (i.e., Fox Searchlight, Miramax, Focus, DreamWorks/PAR, Paramount/VAN, and TWC) are collapsed into an "other" category. Based on this approach (see Table 1), Lionsgate is

the most balanced company (42.5%=female) followed by New Line (35.6%=female), MGM (34.8%=female), and WB (32.7%).

Context. One stereotype seems to dominate the portrayal of girls and women on-screen: lookism. Lookism pertains to the nubile quality of females in film, showing them in a young and sexy light. As noted in Table 2, a higher percentage of females in comparison to males are depicted as children/adolescents as well as adults (ages 21-39).[18] This trend reverses for characters over 40, reinforcing the reality that there are fewer roles for middle-aged female actors in film.

Table 2
Levels of Character Age by Gender

Age Bracket	Males	Females	Total
0-21 yrs	12.5% (*n*=375)	18.4% (*n*=239)	14.3% (*n*=614)
21-39 yrs	44.1% (*n*=1,317)	53.2% (*n*=690)	46.9% (*n*=2,007)
40-64 yrs	38.6% (*n*=1,152)	23.8% (*n*=309)	34.1% (*n*=1,461)
65+ yrs	4.8% (*n*=143)	4.5% (*n*=58)	4.7% (*n*=201)

Not only are females younger than males, but they are also more likely to be sexualized. Figure 1 displays gender differences across four appearance indicators:[19] sexually revealing clothing (e.g., tight or revealing attire), partial nudity (i.e., exposed skin in at least the chest, stomach, and/or upper-thigh region or more), thinness (i.e., lacking body fat, minimal curve/shape), and attractiveness (e.g., beauty as indicated by other characters in the plot). The figure illuminates the eye-candy quality of females in film, as girls/women are more likely than boys/men to be attractive, thin, showing exposed skin, and wearing aphrodisiac-inducing apparel.

In addition to the focus on appearance, many women are shown in traditionally-gendered roles as parents or spousal units. Of those women with enough information for coders to make these judgments, 50% are caregivers and 55.9% are relational partners.[19] An unexpected finding emerged with males, however. A similarly high percentage of men – and women -- are shown in domesticated roles in 2007 (51.5% male parents; 55.3% male partners). Unfortunately, we did not assess the nature of how these male role models are depicted. It may be the case that such portrayals are more demeaning than dignified in comportment. Future research should examine these depictions, especially given the apparent rise of "bromances" and male-driven romantic comedies (e.g., *Knocked Up*, *Dan in Real Life*, *The Heartbreak Kid*).
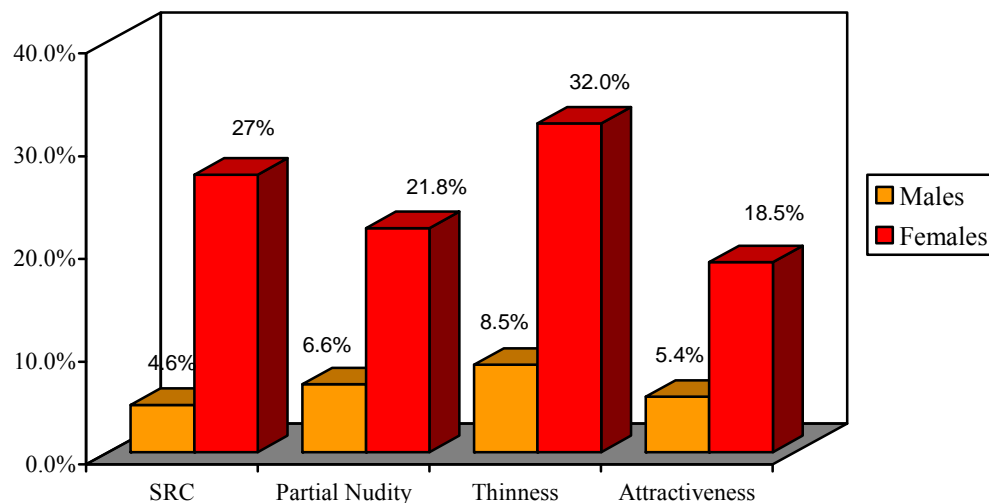
Overall, study 1 examined gender roles in top-grossing feature films released in 2007. Imbalance still reigns in motion pictures, but the gender gap is not industry wide: certain genres and distributors are more female friendly than others. Stereotyping is also alive and well, with a higher percentage of females than males shown in a sexualized and attractive fashion.

Study 2
Stacy L. Smith, PhD.

What accounts for the way in which females are framed in film? Several ideas have been put forth, with one suggesting that on-screen gender roles are a function – to some degree -- of the gender composition of behind-the-camera workers.[21] Three of the most sacrosanct occupational titles in film are director, writer, and producer. Lauzen has been tracking the percentage of women filling these jobs for roughly a decade,[22] and examining how their presence is associated with on-screen portrayals -- especially in TV. The aim here is to assess if biological sex of content creators is associated with on-screen portrayals of character sex in 2007.

Figure 1
Appearance Indicators by Character Gender

To examine this, the names of every above-the-line worker across the 100 films in the sample were gathered. Creating grids for every movie, I recorded the name and title of all directors (e.g., director, co-director), writers (e.g., story, screenplay, characters, dialogue, etc.), and producers (e.g., executive producer, associate producer, co-producer, etc.) listed on each movie's website at IMDbPro. Next, biological sex of these individuals is recorded. Much of this information was listed on the websites of IMDbPro or inBaseline. When information did not appear at these sites, the scouring of interviews, photos, and other texts ensued until a reliable judgment could be made. In a few instances, individuals at production companies were called or emailed to verify an industry worker's biological sex. Across all the judgments, only one individual's biological sex could not be confirmed. In this case, the individual is coded female because her first name is traditionally feminine.

A total of 3% (*n*=3) of the films (*August Rush, The Nanny Diaries, Across the Universe*) featured a female director, 26% (*n*=26, *range*=1-3 per film) a female writer, and 78% (*n*=78, *range* =1-10 per film) a female producer. The findings for directors and writers

 are strikingly similar to those we obtained examining the biological sex of behind-the-scenes workers in Academy Award® Best Picture nominated Films from 1977 to 2006. [23]

Table 3
Occupational Title by Employee Sex

	Males	Females	Total
Directors	97.3% (*n=109*)	2.7% (*n=3*)	112
Writers	88.8% (*n=278*)	11.2% (*n=35*)	313
Producers	79.5% (*n=674*)	20.5% (*n=174*)	848
Total	83% (*n=1,061*)	17% (*n=212*)	1,273
Ratio	5.00	1	

Similar to our earlier work, we computed the number of males and females working in each of these positions (see Table 3) across the 100 films. When the individual is used as the unit of analysis rather than the film, only 17% of these jobs are filled by women: 3% in directing, 11.2% in writing, and 20.5% in producing. This calculates into a ratio of 5 males to every 1 female in these revered jobs, revealing that employment in the upper echelons of movie making is anything but a "fempire."[24] It must be noted that these findings are roughly similar to results obtained by Lauzen who examined the sex of behind-the-scenes workers across 250 top-grossing 2007 films.[25]

When looking more microscopically at the movies, only 1 featured a single female writer (Diablo Cody, *Juno*) and only 3 featured all female writing teams (*The Game Plan, No Reservations, Because I Said So*). The dearth of women writers should not be surprising, as the Writer's Guild Report from 2009 reveals that self-reported median income for female screenwriters is roughly $40,000 less in 2007 than the self-reported median income for white-male screenwriters.[26]

The relationship between biological sex of behind-the-scenes worker and sex of on-screen character is examined next. There are at least two ways to conduct these analyses. The first is to use the character (*n=4,379*) as the unit of analysis. Resultantly, the sex of occupational workers (coded at the film level) is "brought down" or "loaded" on each character line within movie across the sample. We anticipated that content creators' sex would be associated with the frequency of girls and women on-screen.

Female-directed films feature a higher percentage of on-screen girls and women (44.6%, *n=70*) than do male-directed films (29.3%, *n=1,238*).[27] While this finding is notable, it must be interpreted with caution. The percentages in female-directed fare emerged across three films. Yet we found a similar pattern in our analysis of gender roles in 150 Academy Award® Best Picture nominated films: the six films directed by women featured substantially more female characters (41.2%, *n=87*) than did those directed by men (26.8%, *n=1,778*). It may be the case that female directors are more likely to

diversify their casts with regard to character sex than male directors. Or, it may be the case that female auteurs are drawn to scripts and stories featuring more girls and women.

A similar but less pronounced pattern emerges for sex of writer,[28] with films featuring one or more female screenwriters depicting a higher percentage of girls/women on-screen (34.9%, *n*=397) than films featuring only male screenwriters (28.1%, *n*=911). Sex of the producer also is associated with gender representation on the silver screen.[29] Films produced by one or more females showed slightly more girls/women on-screen (30.8%, *n*=1,069) than did those films produced by only males (26.4%, *n*=239).

Another way to look at the data is to bring the character information up to the film level (*n*=100). Here, I examine the average number of females depicted on-screen (sheer amount) as well as the average percentage of females relative to males for properties featuring women as writers (no, yes) or producers (no, yes).[30] Given the small sample of female directors (*n*=3), analyses were not computed at the film level on character variables by director sex.

As displayed in Table 4, the means differed significantly across industry workers: the average number and percentage of female characters in films written or produced by women is higher than the average number and percentage of female characters in films created by men in the same occupational category.

Table 4
Mean Number and Percentage of Female Characters by Industry Employee Sex

	Female Director		Female Writer		Female Producer	
	No	Yes	No	Yes	No	Yes
Mean # of female characters (SD)	12.76 (6.0)	23.33 (11.5)	12.31 (6.0)	15.27 (7.2)	10.86 (6.4)	13.705 (6.35)
Mean % of female characters (SD)	.31 (.13)	.44 (.18)	.30 (.12)	.35 (.14)	.27 (.13)	.32 (.13)
Total # of films Per Condition	97	3	74	26	22	78

Next, I assess whether sex of behind-the-scenes employee is associated with the appearance (i.e., sexually revealing clothing, partial nudity, thinness, attractiveness) of on-screen females. First, the analysis is conducted at the character level. In Table 5, the shaded cells indicate statistically that there is no association between the biological sex of director, writer, or producer and the variable in question.

What stands out in the table is the relationship between sex of behind-the-camera workers and sexually revealing clothing and partial nudity.[31] Those films directed or written by women depicted a lower percentage of female characters in sexually alluring attire than those films directed or written by only men. A similar finding emerged with female character partial nudity, but this time across all three types of industry employee. The presence of a female on the production team was associated with a 6.8-10.8% reduction in the percentage of characters shown with some nudity. As noted earlier, the findings

for female directors should be interpreted with care as only 3 films featured a female auteur.

Similar to our earlier analyses, I looked at these four appearance indicators at the film level to see if the trends held. Each film received a summed score for the total number of females displaying revealing clothing, some nudity, thinness, and beauty. The range of speaking females varies across films, however. A film may be read differently if 5 females are shown in revealing attire out of a total cast of 5 women (100%) than if only 2 of the 5 are shown in sexy apparel (40%). To account for this, I divided the summed indicator per film by the total number of speaking female characters appearing in the movie. The two measures in Table 6 reflect the averages of these variables by content creators' biological sex.[32] Again, the data for these variables by director sex is illustrated but analyses were not executed due to the small sample size. As shown, the patterns held but the tests reduced all but one finding to non significance. This is probably due to a lack of power to detect smaller effects, as the sample size was reduced dramatically between the two sets of analyses.

Table 5
Appearance Variables by Industry Employee Sex

Variable	Directors		Writers		Producers	
	No Females	1 or More Females	No Females	1 or More Females	No Females	1 or More Females
% w/SRC	27.8% (n=334)	13% (n=9)	29.8% (n=263)	20.7% (n=80)	31.1% (n=73)	26.1% (n=270)
% w/ partial nudity	22.4% (n=269)	11.6% (n=8)	24.3% (n=215)	16.1% (n=62)	27.4% (n=64)	20.6% (n=213)
% w/thinness	31.7% (n=298)	37.0% (n=20)	34.8% (n=240)	25.6% (n=78)	28.4% (n=52)	32.8% (n=266)
% w/beauty	18.8% (n=233)	12.9% (n=9)	19.1% (n=174)	17.1% (n=68)	22.7% (n=54)	17.6% (n=188)

There are at least three conclusions that can be drawn from study 2's findings. First, the top-grossing films from 2007 are overwhelmingly directed and written by men. 98% of the films featured at least one male director and 96% featured at least one male writer. Stated differently, 2.7% of the films had a female director and 26% of the films had one or more female writers. Clearly, female representation in these two creative fields is lacking.

Second, the results show that films look different when women infiltrate the ranks of directing, writing, or producing. More girls and women are shown on-screen when women create, manage, and financially shepherd movies, which can have significant employment consequences for other females working in entertainment. To illustrate, let's take a look at the potential employment ramifications for female actors if more women directors are hired by studios. The percentage of females in film increased by 15.3% (the difference found above) in 2007 when a woman directed. If women are at the helm of 33% of all movies (rather than 3) in this sample, the number of jobs for female

actors could have potentially increased by 213.75.[33] This would mean an additional 1,068.75 major, minor, and inconsequential speaking roles for female thespians in the top-grossing 100 films across 5 years and 2,137.50 across 10 years. Economically, this is no small effect for working female actors.

Third, the relationship between content creator sex and lookism on-screen needs to be more fully explored. It may be the case that a female sensibility can decrease some forms of lookism (i.e., SRC, partial nudity) in motion picture content. Because the findings using the film as the unit of analysis were not significant, our character results should be interpreted with caution.

Table 6
Mean Number and Percentage of Appearance Indictors by Industry Employee Sex

	Female Director		Female Writer		Female Producer	
	No	Yes	No	Yes	No	Yes
Mean # of female characters w/SRC	3.44 (3.09)	3.00 (1.73)	3.55 (3.2)	3.08 (2.65)	3.32 (2.06)	3.46 (3.3)
Mean % of female characters w/SRC	.28 (.205)	.12 (.05)	.29 (.20)	.23 (.22)	.345 (.22)	.25 (.195)
Mean # of female char w/some nudity	2.77 (2.97)	2.67 (1.53)	2.905 (3.22)	2.4 (1.9)	2.91 (2.2)	2.73 (3.12)
Mean % of female char w/some nudity	.23 (.195)	.11 (.05)	.23 (.18)	.19 (.22)	.28 (.17)	.21 (.20)
Mean # of female char w/thinness	3.06 (2.58)	6.67 (1.53)	3.23 (2.72)	3.00 (2.35)	2.36 (2.01)	3.4 (2.74)
Mean % of female char w/thinness	.25 (.21)	.32 (.11)	.27 (.20)	.22 (.22)	.25 (.24)	.26 (.20)
Mean # of female char w/beauty	2.41 (1.89)	3.0 (2.645)	2.36 (1.98)	2.615 (1.7)	2.45 (1.74)	2.42 (1.96)
Mean % of female char w/beauty	.21 (.17)	.13 (.11)	.21 (.16)	.23 (.21)	.265 (.19)	.20 (.17)

One area where more research is needed pertains to on-screen nudity. In study 1, we found that females are more likely than males to be shown partially naked. Most instances of this variable were "nudity lite" or showing cleavage, a bare midriff, or skin from the upper thigh region (91% of all 277 instances of female nudity involve one of these types of exposure; 26 instances involve more provocative exposure). The character findings suggest that there may be less exposed female skin on movie sets when women are involved in the production. This is important for future researchers to explore, as Robinson has argued that nudity is one aspect of acting that may create "identity harm" especially among female actors.[34]

Additionally, a rigorous study of over 800 films recently found that ratings of sex/nudity are a significant and *negative* predictor of approximate U.S. net box office revenue (e.g., gross minus production costs).[35] The same study also showed that ratings of sex/nudity are *not* related to gross financial box office performance in the U.S., U.K., or worldwide. Thus, sexualized scenarios which involve nudity may have a harmful effect on *some* female actors and do not provide positive financial returns at the box office. When

women are involved in the production process, according to our data but not others,[36] the frequency of sexually revealing clothing and partial nudity may be curbed. These relationships need to be more fully explored empirically, as one scholar has shown that female directors, writers, and producers tend to be gainfully employed in certain fictional genres where love and romance (and potentially sex/nudity) abound.[37]

Study 3
Amy D. Granados, Laurel Felt, & Stacy L. Smith, PhD.

Study 1 was designed to overview the frequency and nature of females on-screen. Our results show that females represent only 29.9% of speaking characters in top-grossing 2007 films. Some females also are portrayed in a sexualized light. Study 2 examined the biological sex of content creators working on these films. The findings reveal a dearth of female directors and writers in popular motion picture content. Results also show that when females are directing, writing, or producing, the frequency of -- and to a lesser extent the context surrounding – girls and women on-screen is different than when males are directing, writing, or producing.

In this investigation, we move beyond these aggregate numbers and examine -- in depth -- how many films in our sample feature female leads and the way in which those protagonists are depicted. Our focus here is narrow, honing in on those females that go on an independent journey without a strong, roughly-equal male counterpart (i.e., Katherine Heigl, *Knocked Up,* Mandy Moore, *License to Wed*). We also excluded females in ensemble casts (i.e., Jessica Alba, *Fantastic Four*). The reason for this tapered analysis is to assess stories involving solo female protagonists, as these main characters have been bandied about in the popular press for their (in) ability to deliver box-office returns.[38]

To this end, we first had to identify the subset of films with female leads in our sample.[39] Initially, four indicators were used to make this determination:[40] 1) the description in *Magill's Cinema Annual 2008*, 2) title, 3) foregrounding of a character on the front box art of the DVD, and 4) top billing. If three or four indicators pointed to a single protagonist, then this character was deemed "the lead" by coders. When fewer than three indicators were present, or when discrepancies emerged, the research team discussed and rendered a collective decision.

After establishing the female leads, we then focused on the context surrounding the protagonists' journeys. Using two distinct rounds of assessment with two groups of coders,[41] we examined the lives of these fictionalized females in six areas: visibility & demography, appearance, love/romance, employment, motherhood, and aspirations & priorities. Our interest lies in assessing whether these films reinforced feminine stereotypes or shattered the story-telling ceiling by depicting girls and women in a multi-dimensional and complex light. That is, we are not evaluating the quality of these films but rather the range and nature of female portrayals. After coders completed their task, the three authors discussed the coding and further scrutinized similarities and differences

in the films across multiple working sessions. Below, you will find general themes that characterize the female protagonists in popular 2007 films.

Few female leads appeared in the top-grossing 100 films, with only 18 fitting our narrow definition of a protagonist. The female-driven films present protagonists in a wide array of genres (see Table 7) and ratings (G=5.5%, PG=22.2%, PG-13=44.4%, R=27.7%). 50% of the films featured one or more women on a writing team (*n*=9),[42] and 50% were distributed by WB (28%, *n*=5) or Sony (22%, *n*=4). In terms of ethnicity, 94.4% of the protagonists are white and one is depicted as mixed race. One other point about the female protagonists is worth noting. Given the paucity of roles for women in Hollywood, it is surprising that 3 of the films featured the same leading actor (Hilary Swank).

Table 7
Female Protagonists in Top-Grossing 2007 Films

Rank	Title	Lead	Actor	Female Writer	Genre	Distributor
15	Juno	Juno	Page	Yes	Comedy/Drama	Fox Searchlight
20	Enchanted	Giselle	Adams	No	Family Adventure	Disney
24	Hairspray	Tracy	Blonsky	Yes	Musical	New Line
39	The Golden Compass	Lyra	Richards	No	Fantasy	New Line
47	P.S. I Love You	Holly	Swank	Yes	Romance	WB
50	Atonement	Briony	Ronan*	No	Period Drama	Focus
51	Resident Evil: Extinction	Alice	Jovovich	No	Action Horror	Sony
56	Premonition	Linda	Bullock	No	Thriller	Sony
62	No Reservations	Kate	Zeta-Jones	Yes	Romantic Comedy	WB
63	Because I Said So	Milly	Moore	Yes	Romantic Comedy	Universal
72	The Brave One	Erica	Foster	Yes	Drama/Thriller	WB
74	Freedom Writers	Erin	Swank	Yes	Drama	Paramount
76	The Messengers	Jess	Stewart	No	Horror	Sony
83	Mr. M's Wonder Emporium	Molly	Portman	No	Fantasy Drama	Fox
91	The Nanny Diaries	Annie	Johansson	Yes	Comedy/Drama	MGM
93	Nancy Drew	Nancy	Roberts	Yes	Family Adventure	WB
95	The Reaping	Katherine	Swank	No	Horror	WB
99	Perfect Stranger	Rowena	Berry	No	Thriller	Sony

Note: Rank refers to position in the top-grossing 100 films for 2007 based on Nielsen EDI. Genre distinctions were retrieved from Box Office Mojo. Female writers were gleaned from data in Study 2, which was derived from IMDbPro. Distributor information came from the Nielsen EDI list. *=Saoirse Ronan was cast as the young Briony, followed by Romola Garai (young adult) and Vanessa Redgrave (older adult).

Bringing the three studies together, we examined whether female lead (present, absent) was associated with character gender (male, female) on-screen as well as the biological sex of above-the-line workers.[43] Given the small number of female protagonists, we could not compute analyses by director sex or producer sex (cell counts < 5). Films with female writers (34.6%, *n*=9) are more likely to feature a female lead than films with only male writers (12.2%, *n*=9). Further, movies with female lead characters depict a higher percentage of girls and women on-screen (42.3%, *n*=294) than do movies without female lead characters (27.5%, *n*=1,014).

Across the 18 films and their leading ladies, we could identify three general types of protagonists: the heroes (*n*=8), the lost (*n*=6), or the conflicted (*n*=4). The females

across these categories are very different, but so are the girls and women *within* each grouping.

Heroes are mission-minded females focused on the plight of others. In all of these films, the protagonist is up against seemingly impossible odds, but she does not give up, and multiple people benefit from her actions. There is a range of problems confronted by the heroes. Two characters aim to bring about social change by confronting institutional racism (*Hairspray, Freedom Writers)*. Several heroes tackle criminal (*Nancy Drew*) or supernatural (*The Messengers, Premonition*) happenings confined to a single house. Still others take on paranormal occurrences on a community (*The Reaping*) or global (*Resident Evil, Golden Compass*) level.

Some protagonists in this category might be singled out as "superheroes" (*Freedom Writers, Nancy Drew, The Reaping, Resident Evil*). Though these girls and women face many struggles, they are well equipped for the obstacles they confront. As such, they transform little in response to their journey. *Premonition* and *The Messengers* show a different type of hero. In these films, the main character is plagued by inexplicable and horrific events unfolding in her home; no one believes her and she is severely traumatized by otherworldly incidents.

The second group of female protagonists is lost. The lost women are literally in an unknown land (*Enchanted*) or aimless because of a lack of direction (*P.S. I Love You, Mr. Magorium's Wonder Emporium, The Nanny Diaries*). In *Because I Said So* and *No Reservations*, it is not immediately apparent that the protagonist is lost, but it becomes clear that she struggles with interpersonal relationships.

In contrast to heroes who have clear goals and battles, the lost women tend to be self-focused and to react to events that unfold around them. This is not necessarily problematic, as it shows women dealing with real-life events in varied ways. In this type of story, intra- or interpersonal problems have center stage and if other people benefit from the main character's journey, it is often a byproduct and not an intended consequence. While a protagonist in this category may not aim to aid others, she may learn that she is well equipped to improve the family dynamics of her employer (*Nanny Diaries*), run her own business and provide a home for a child (*No Reservations*), or to prevent the demise of a magical toy store (*Mr. Magorium's Wonder Emporium*).

When these lost women grasp for the next step, work or romance provide the path to personal fulfillment. Three lost characters have a romantic interest that plays a major role in being found (*Because I Said So, P.S. I Love You, No Reservations*). Other women in this category (*Mr. Magorium, The Nanny Diaries*) find themselves through their jobs. Interestingly, three of these films depict protagonists who are not actually leading the action of their own journey. Instead, another character controls the action by pushing and pulling the protagonist along a road of healing (*P.S. I Love You*), dating (*Because I Said So*), or finding passion (*Mr. Magorium's Wonder Emporium*).

Like the lost, the conflicted are self-focused, but other characters often pay for the protagonists' choices. The final group of films defies broad categorizations, but the main characters all share a theme of dealing with trauma and/or poor decision-making. In *Perfect Stranger* and *The Brave One* the protagonists are victims who become perpetrators. Rowena's violence escalates, as she attempts to cover past crimes. Erica becomes a murderous vigilante. In *Atonement*, Briony accuses her sister's lover of rape and he dies before she can clear his name. *Juno* is a pregnant high school student who must decide what is best for her and the baby. *Atonement* and *Juno* provide a drawn-out examination of consequences, while *The Brave One* and *Perfect Stranger* show the protagonists' crimes unfold in real-time.

Several notable aspects of these films might elicit praise from those critical of stereotypical media portrayals of women. The heroes do not often lament the lack of a romantic partner or offspring; romance is dimly lit in these films, rather than being in the spotlight, where it might be expected. Females in these films do not drop everything when a romantic partner wants her to change (*Nanny Diaries*, *Freedom Writers*, *No Reservations*, *Hairspray*, *Nancy Drew*). Even *Enchanted*, the only film featuring a protagonist who is completely fixated on romance, shows a character whose cartoonish idea of love grows into a more realistic appreciation of human relationships.

These are not girls and women in need of liberation or rescue, many of the protagonists save themselves and others. Domestic life is not idealized. *Premonition*, *The Nanny Diaries,* and *The Messengers* provide glimpses into homes that are more hellish than heavenly. The conflicted films illuminate deeply flawed women who confront, in one way or another, the consequences of their actions. With the exception of Rowena, these characters are more than the stereotypical "femme fatale." Finally, the relative shortage of sexualization and explicit objectification of these main characters is laudable. The women in these films are not perfect, their lives are messy and their stories are multidimensional.

Though hot button issues are not pervasive across these 18 films, red flags still sporadically appear. One line of criticism has to do with traditional depictions showing women as domestically and romantically inclined. Although only a few films (*Enchanted*, *P.S. I Love You*, *Because I Said So*, *No Reservations*) have an explicit focus on love and romance, 16 protagonists (88.8%) in all have some sort of romantic interest.

Another line of critique relates to the lack of control or agency that these women might have in their own lives. In three films, other characters dominate the protagonists' choices. Molly shares substantial screen time with *Mr. Magorium*. Fundamentally, he is a father figure who helps Molly find her way. In *P.S. I Love You*, Holly relies on a (dead) man to tell her what to do, how to grieve, and when to date. While it could be argued that Holly is under Gerry's control, struggling through grief is an expected response to losing a spouse. Ultimately, Gerry's letters remind Holly of her passion for art and creativity that had eroded. In *Because I Said So*, Milly's mom, Daphne, tries to control everything from Milly's wardrobe to her dating partners. This film illustrates one possible interpretation of the rift between second wave and third wave/post-feminism. Daphne

regrets that she has not had a man in her life and wants desperately for Milly to avoid the path of spinsterhood. Milly, however, in true post-feminist fashion, does not know exactly what she wants, is OK with casual sex, non-monogamous dating, is self-sufficient, and declares that she is comfortable being alone.

A third area that might receive criticism is the conflict between the protagonists and other women. This dissonance arises between peers (*Hairspray*, *Nancy Drew*, *No Reservations*), competitors for mates (*Premonition*, *Perfect Stranger*) and protagonists and their mothers (*The Messengers*, *P.S. I Love You*, *Because I Said So*, *The Nanny Diaries*, *Enchanted* (as future stepdaughter). Although these films could be criticized for displaying disharmonious relationships between women, this type of conflict is to be expected if films are to be populated with many female characters, not just a single leading lady.

An additional point of criticism rests on the sexualization of the protagonists. Although there might be less racy content than expected, some element of objectification or sexualization is present in *Resident Evil*, *The Reaping*, *P.S. I Love You*, *Because I Said So*, *Perfect Stranger*, and *The Brave One*. In each of these films, the leading lady has a scene in her lingerie or less. *Perfect Stranger* eroticizes the only non-white protagonist, depicting Rowena as a violent vixen who uses her sexuality to exploit others.

A final critique of these films pertains to their plots. Upon scrutiny, many of the story elements were similar across films. The 18 narratives could be reduced to 9 storylines, with each female-driven movie having a likeness or strong similarity to another in the small sample. This should not be too terribly surprising, as it has been argued that there is a finite number of "dramatic situations" in stories.[44] Box Office Mojo even has an option online to look at movies that are similar to one another. What is interesting about these pairings is that they all emerged within "type" of female-driven films that we outlined above (hero, lost, and conflicted). See footnote 45 for an example of these pairings.

Overall, less than 20% of the top-grossing films in 2007 feature female protagonists. Yet there is a range of stories traversed by the women and girls who lead these films that are to be simultaneously commended and critiqued.

Conclusion

The aim of this research was to examine the status of females in 100 top-grossing 2007 films. We completed three investigations, each applying a different lens to look at gender roles in motion picture content. Study 1 examined the prevalence and nature of male and female speaking characters across the 100 films. Study 2 looked at the biological sex of behind-the-scenes workers and assessed the relationship between gender of industry worker and gender of speaking character. We looked at female protagonists in depth in study 3. Here, we sum across the studies and provide the main findings.

#1 Females in Film Do Not Represent 'Half the Cinematic Sky'[46]

Three separate findings support this claim. First, only 29.9% of the 4,379 speaking characters across the 100 films coded in study 1 are female. These findings are strikingly similar to the results we found examining over 15,000 speaking characters (27% are female) in 400 G, PG, PG-13, and R rated films released between 1990 and 2006 as well as 6,833 speaking characters (27.3% are female) in 150 Academy Award® Best Picture nominated films from 1977 to 2006.[47] Turning from all speaking characters to protagonists, we see even fewer girls/women. Less than a fifth of the films in the sample (*n*=18) featured a solo female as the main character.

One reason for the lack of gender symmetry on-screen may be the biological sex of content creators behind-the-camera. Study 2 showed that males are overwhelmingly the directors, writers, and producers of the top-grossing films from 2007. Only 2.7% of directors (*n*=3), 11.2% of writers (*n*=35), and 20.5% of producers (*n*=174) are women. As women inhabit these prestigious posts, we may begin to witness a representational sea change on-screen. This was our major finding from study 2, which we turn to now.

#2 Behind-the-Scenes Females are Small in Number but may be Large in Influence

Study 2 shows that biological sex of industry worker was associated with on-screen portrayals of character gender. Films with at least one female director depicted significantly more girls and women on-screen (44.6%, *n*=70) than did those with only male directors (29.3%, *n*=1,238). These findings should be interpreted with caution, as only three films featured a female auteur. However, we observed a similar interaction between director biological sex and character sex in our research on Academy Award® Best Picture nominated films from 1977 to 2006.[48]

A similar but less pronounced pattern is detected for writer sex, with films featuring one or more female screenwriters depicting a higher percentage of females on-screen (34.9%, *n*=397) than films featuring only male screenwriters (28.1%, *n*=911). Sex of the producer also is associated with gender representation on the silver screen. Films produced by one or more females showed a slightly higher percentage of female characters on-screen (30.8%, *n*=1,069) than did those films produced by males only (26.4%, *n*=239). These findings suggest that b-t-s women may represent what M. Gladwell refers to as the "law of the few"[49] in the film industry, those that shape shift on-screen portrayals of gender as they infiltrate above-the-line ranks.

#3 Females not only Lack Equity On Screen, But Sometimes They're Eye Candy

Moving from prevalence to portrayal, our results revealed that females sometimes function as eye candy. In specific, females are more likely than males to be depicted wearing revealing outfits (27% vs. 4.6%), exposing skin (21.8% vs. 6.6%), as physically attractive (18.5% vs. 5.4%), and thin (32% vs. 8.5%). We have found similar trends in our other research. Across the aforementioned 400 film study,[50] 21.3% of females wore sexualized attire (3.9% of males) and 33.5% were thin (11.9% of males). These trends,

combined with the fact that females tend to be younger in motion picture content than males, reinforce standards and practices of lookism in the industry.

#4 Female Protagonists Lives are Messy and Multidimensional

When we examined female protagonists, however, a less sexualized scenario emerged. Although many of the females pursued love and romance (88.8%), the lion share of main characters (44.4%, *n*=8) are on heroic journeys fighting institutional racism, community crime, and local/global paranormal activity. These gals had little time to hook up with their male counterparts. As such, romance was relegated to the back seat in many of the female-driven properties. It did appear when our main characters are lost (*n*=6), with many turning to a man or an employment path to fill their void. Overall, the female protagonists in the sample represent a multi-dimensional mix of strong and weak, lost and found, and heroic and villainous.

Overall, females are infrequent in film – whether it is on-screen, behind-the-camera, or as the protagonist pushing the plot. The solution to this imbalance seems lie within the industry itself. Films featuring women working as directors, writers, or producers are associated with higher percentages of girls and women on the silver screen than those films with only men in these occupations. Future research should explore women's experiences in film -- both on-screen and behind-the-camera -- as well as the relationship between the biological sex of studio executives and portrayals of character gender in cinematic content.

Footnotes

[1] Zeitchik, S., Lee, C., Abramowitz, R. & Kaufman, A. (February 2, 2010). *Sandra Bullock, Kathryn Bigelow and others riff on a day of Oscar. Los Angeles Times.* Retrieved online, http://latimesblogs.latimes.com/movies/2010/02/oscar-nominees-reactions-sandra-bullock.html

[2] Powers, S., Rothman, D. J., & Rothman, S. (1996). *Hollywood's America: Social and political themes in motion pictures.* Boulder, CO: Westview Press (see page 154, Table 8.1). Bazzini, D. G., McIntosh, W. D., Smith, S. M., Cook, S., & Harris, C. (1997). The aging woman in popular film: Underrepresented, unattractive, unfriendly, and unintelligent. *Sex Roles, 36* (7/8), p. 531-543. 32% (n=171) of primary and secondary characters (n=534) were female across 100 films released between 1940-1980.

[3] Cerridwen, A., & Simonton, D. K. (2009). Sex doesn't sell-nor impress! Content, box office, critics, and awards in mainstream cinema. *Psychology of Aesthetics, Creativity, and the Arts, 3,* 200-210. 32.38% of characters (n~49,000) were female across 914 films released between 2001 and 2005. Lauzen, M. M. & Dozier, D. M. (2005). Maintaining the double standard: Portrayals of age and gender in popular films. *Sex Roles, 52* (7/8), 437-446. 28% (n=889) of characters (n=3,142) were female across 88 top-grossing films in 2002 (see page 440). Smith, S. L., Choueiti, M., Granados, A. & Erickson, S. (2008). *Asymmetrical Academy Awards®? A look at gender imbalance in best picture nominated films from 1977-2006.* http://annenberg.usc.edu/Faculty/ Communication /~/media/93914BE9EB5F4C2795A3169E5ACDB84F.ashx. 27.3% (n=1,865) of characters (n=6,833) were female across 150 films nominated from 1977 and 2006.

[4] Smith, S.L., & Cook, C. A. (2008). *Gender stereotypes: An analysis of popular films and TV.* Los Angeles, CA: The Geena Davis Institute for Gender and Media. Smith, S. L., & Granados, A. D. (2009a). Content patterns and effects surrounding sex-role stereotyping on television and film. In J. Bryant & M. B. Oliver (Eds.), *Media effects: Advances in theory and research* (3rd ed., pp. 342-361). New York: Routledge.

[5] Smith, S.L., & Cook, C. A. (2008). Smith, S.L., & Granados, A. D. (2009a). Bazzini, D. G., et al. (1997).

[6] Smith, S.L., & Granados, A. D. (2009a).

[7] Smith, S. L., & Granados, A. D. (2009a). Smith, S. L., Kennard, C., & Granados, A. (2009). Sexy socialization: Today's media and the next generation of women. In H. Boushey & A. O'Leary (Eds.), *The Shriver report: A woman's nation changes everything* (pp. 310-317). Washington DC: Center for American Progress. Smith, S. L. & Granados, A. D. (2009b). *Gender and the media.* http://www.pta.org/Gender_and _the_Media.pdf

[8] Herrett-Skjellum, J., & Allen, M. (1995). Television programming and sex stereotyping: A meta-analysis. In B. R. Burleson (Ed.), *Communication yearbook* 19 (pp.

157-185). Thousand Oaks, CA: Sage. Grabe, S., Ward, L.M., & Hyde, J.S. (2008). The role of the media in body image concerns among women: A meta-analysis of experimental and correlational studies. *Psychological Bulletin, 134*(3), 460-476. Botta, R. A. (1999). Television images and adolescent girls' body image disturbance. *Journal of Communication, 49*, 22-41.

[9.] Smith, S. L., & Cook. C. A. (2008).

[10.] For each living on-screen single speaking (or named) character, a series of demographic traits were evaluated. *Age* was coded into one of six categories: 0-5, 6-12, 13-20, 21-39, 40-64, 65+. This measure was reduced at analysis to five levels by combining the two youngest age groups. *Sex* was coded as male or female. *Parental status* is conceptualized broadly, to include care giving of live biological, adoptive, and/or foster children and had 4 levels: not a parent, single parent, co-parent, parent/relational status unknown. At analysis, the measure was reduced to two levels: parent vs. not a parent. *Relational status* captured the character's involvement in a romantic interpersonal relationship. Characters were coded as single, married, committed relationship/not married, committed relationship/status unknown, divorced, or widowed. Later, this variable was reduced to three levels: not in a relationship, in a relationship, or had a past relationship (i.e., divorced or widowed). For parental status and relational standing, the coders were instructed to assess the status that the character held for the longest duration of the plot. Two additional levels are available when coding all the variables in this study: can't tell (e.g., not enough information to make judgment; information obstructed) and not applicable (e.g., variable assessment does not apply to character).

[11.] A series of appearance variables also were evaluated, for characters whose bodies approximated the shape of a human's more than some other species. Some of these variables were derived from Downs and Smith's (2009) study of video game characters. *Sexually revealing clothing* refers to attire that is tight or alluring (as worn from mid chest to mid thigh) and is coded present or absent. *Nudity* captures the amount of exposed skin. Characters are coded as no nudity, partial nudity (exposure in chest region/cleavage, midriff, and/or upper thigh) or full nudity. At the analysis level, the latter two categories were collapsed. *Thinness* refers to the amount of fat a character's body possesses. To facilitate judgments on this variable, coders received 4 sets of silhouettes derived from body image research (modified version of Collins, 1991 scales) of girls/women and boys/men that illuminate a single individual on a 7-point scale ranging from extremely thin to extremely overweight. A one on the scale is coded as extremely thin (e.g., no shape or curve), a two on the scale is coded as thin (e.g., minimal shape and curve), and all other values are assigned to "not thin." Prior to running analysis, the two thinness categories were collapsed.

Attractiveness refers to physical beauty that appeals to or creates desire in other characters. Rather than rely on subjective judgments of the coders' standards of physical beauty, each character was evaluated based on verbal (i.e., any synonym or colloquialism for attractiveness) and/or nonverbal (e.g., cat call, whistling) indicators of desire

communicated by other characters. This variable had three levels: not attractive, attractive (one instance of desire communicated by another character), or very attractive (two or more instances of desire communicated by one or more characters). Similar to the variables above, this measure was collapsed into two levels: attractive vs. not attractive. Unlike the other appearance indicators, this variable was assessed for all speaking characters.

[12.] In the spring (*n*=27), summer (*n*=6; two from spring term), and fall (*n*=35) semesters of 2009, undergraduates from the University of Southern California were recruited to participate as research assistants for this content analysis. In a classroom setting, coders were trained by one of the study authors (Choueiti) on how to unitize characters and apply all measures in the codebook. Throughout the training process, lab assignments functioned as tests and ensured coders understood unitizing and reliably applied the measures. These lab assignments were films outside the sample (i.e., *Sleepless in Seattle, Hitch, Cruel Intentions, Vantage Point, What Lies Beneath*) and varied by genre and number of characters coded. Unitizing agreement was calculated by examining the number of coders that agreed on each speaking character. The number of lines agreed upon by 80% of coders per term for each pre coding diagnostic are as follows: fall (73%, 70.6%, 68%, 50%), summer (80%, 80%, 76%, 56%, 91%), and spring (73%, 72%, 66%, 67%). Reliability coefficients were calculated per diagnostic for each variable using the Potter and Levine-Donnerstein (1999) formula. Across 88 median coefficients, only two fell below .70 (*Cruel Intentions*, Thinness, Summer = .69; *Hitch*, Thinness, Fall = .64). Thus, the coders did quite well with reliably unitizing characters and consistently applying character codes.

[13.] Once coding began each term, at least 5 students were assigned randomly to evaluate the same film. When all five students had completed evaluating a movie, reliability was calculated. Unitizing agreement was calculated by estimating the number of agreed upon character lines by 80% of the coders per film. Sample wide, the unitizing median was 75% (*Q1 range*=100%-80.85%, *Q2 range*=80.77%-75.00%, *Q3 range*=75.00%-67.74%, *Q4 range*=67.44%-43.94%). Only six films had under 60% of the lines agreed upon by 80% or more of the coders. Using the Potter and Levine-Donnerstein (1999) formula, the median reliability coefficients across the films (median of medians) are as follows: *age* (90%, *range*=59%-100%), *sex* (100%, *range*=100%), *parental status* (100%, *range*=80%-100%), *relational standing* (100%, *range*=80%-100%), *sexually revealing clothing* (100%, *range*=80%-100%), *nudity* (100%, *range*=100%), *thinness* (90%, *range*=69%-100%), and *beauty* (100%, *range*=100%). Given these numbers, the unitizing and variable coding can be deemed strong and reliable.

Prior to data entry and across over 75% of the films (*n*=76), coders evaluating the same film met and discussed any unitizing disagreements or variable decisions with 50% or less agreement. The study author that trained the RA's moderated these conversations. After discussion, the final data file with corrections was entered into SPSS. For a smaller subset of films, time constraints prohibited discussion of the coding disagreements in group contexts. As a result, one of the study's authors (Choueiti) watched each film, read

through the coders' notes, and rendered a final judgment where there was substantial disagreement.

[14.] Ratings were based on the MPAA distinction given for a film's theatrical release. When purchasing the DVDs for the sample, 11 were "unrated." Three of these DVDs had the option for viewing the theatrically released version or the unrated version. Coders were instructed to watch the former. Three other DVDs were released only as "unrated," with no option to view the theatrical release. For the remaining five, two were identical for coding using our definition of a speaking character. Some differences in characters occurred across the three final films. All analyses were based on the coding of the unrated versions of the five films. The chi-square analysis for gender and rating was not significant, $X^2(3)=5.41$, p=.14, V*=.035.

[15.] Genre distinctions were made initially with categorizations from Box Office Mojo (BOM, www.boxofficemojo.com). The primary list was then reduced to five basic genres, using information from BOM, Internet Movie Data Base Pro (www.pro.imdb.com) and The Numbers (www.the-numbers.com).

[16.] The chi-square for *character sex* and *genre* was significant, $X^2(4)=32.95$, p<.01, V*=.09.

[17.] A chi-square revealed a significant association between *company* and *character gender*, $X^2(9)=44.57$, p<.01, V*=.10.

[18.] A total of 4,291 characters are evaluated for *age*: preschool ($n=34$), elementary school aged ($n=254$), teen ($n=332$), adult ($n=2,009$), middle aged ($n=1,461$), elderly ($n=201$). As noted earlier, this variable was collapsed into 5 levels (child, teen, adult, middle aged, elderly) at analysis. The chi-square revealed a significant association between *age* and *gender*, $X^2(4)=97.22$, p<.01, V*=.15. In reporting our results, we collapsed child and teen frequencies and percentages. The chi-square on the collapsed variable was also significant, $X^2(3)=95.63$, p<.01, V*=.15.

[19.] A series of chi-squares were conducted on each of the appearance indicators. Significant associations with character sex were found across all four of the variables: *sexually revealing clothing*, $X^2(1)=440.06$, p<.01, φ=.325; *partial nudity*, $X^2(1)=203.47$, p<.01, φ=.22; *thinness,* $X^2(1)=288.99$, p<.01, φ=.30; and *physical attractiveness*, $X^2(1)=187.49$, p<.01, φ=.21.

[20.] No significant differences emerged for *parental status*, $X^2(1)=.17$, p=.682, φ=-.015; or *relational standing*, $X^2(2)=.063$, p=.97, φ=.01. Additional variables measured parental status and relational standing at the end of each film's three acts. This was done because coding "longest duration" could fail to capture changes in these variables that occur across the unfolding narrative. No differences emerged by sex across the six measures, as such they will not be reported here.

[21.] Lauzen, M. M., & Dozier, D. M. (1999). The role of women on screen and behind the scenes in the television and film industries: Review of a program of research. *Journal of Communication Inquiry, 23*, 355-373.

[22.] Lauzen, M. M. (2008). *The celluloid ceiling: Behind-the-scenes employment of women in the top 250 films in 2007.* San Diego, CA: Center for the Study of Women in Television and Film.

[23.] Smith, S.L., et al. (2008).

[24.] Schoenman, D. (March 20, 2009). An entourage of their own. *New York Times*, Fashion & Style. http://www.nytimes.com/2009/03/22/fashion/22fempire.html?_r=2

[25.] Lauzen, M. M. (2008).

[26.] Hunt, D. M. (2009). *Rewriting an all-too-familiar story? The 2009 Hollywood Writers Report.* Los Angeles, CA: Writers Guild of America West.

[27.] A chi-square test yielded a significant association between *director sex* and *character sex*, $X^2(1)=16.835$, p<.01, $\varphi=.06$.

[28.] The test for *writer sex* and *character sex* was significant, $X^2(1)=18.67$, p<.01, $\varphi=.065$.

[29.] Chi-square analysis for *producer sex* and *character sex* was significant, $X^2(1)=6.52$, p<.05, $\varphi=.04$.

[30.] T-tests were computed to examine mean differences in the amount and percentage of female characters as a function of films featuring one or more female writers or producers. As noted above, director sex was not included in the analysis due to the small sample of female auteurs. It must be noted that character level analyses featured over 4,000 speaking characters and the smallest cell in the director by character sex analysis contained 70 frequency counts. Thus, unlike at the film level, the character analysis met the minimal observation of 5 per cell for the chi-square test.

Levene's tests were not significant across all analyses, thus t-test with equal variances are reported. Films with female writers depict a *greater number of female characters* and a *higher percent of female characters* on-screen than do films with only male screenwriters: t (98) =-2.049, $p < .05$, $\eta^2=-.02$; t (98) = -1.84, $p < .05$, $\eta^2=-.02$; respectively. Movies with female producers have a higher average number and mean percent of girls and women on-screen than do movies with no female producers: *number of females* t (98) =-1.85, $p < .05$, $\eta^2=-.02$; *percent of females* t (98) = -1.78, $p < .05$, $\eta^2= -.02$.

[31.] Significant chi-squares are as follows: *director sex X female character SRC*, $X^2(1)=7.22$, p<.01, $\varphi=-.075$; *director sex X female character nudity*, $X^2(1)=4.48$, p<.05, $\varphi=-.06$; *writer sex by female character SRC,* $X^2(1)=11.10$, p<.01, $\varphi=-.09$; *writer sex by*

female character nudity, $X^2(1)=10.81$, p<.01, φ=-.09; *writer sex by female character thinness*, $X^2(1)=8.33$, p<.01, φ=-.09; *producer sex by female character nudity*, $X^2(1)=5.13$, p<.05, φ=-.06.

[32.] T-tests were conducted on each hypersexuality indicator for female characters only for the presence of 1 or more female writers (no, yes) and 1 or more female producers (no, yes) only. As stated earlier, the presence of a female director is not analyzed due to small sample size. Only one significant test emerged: *mean % of female characters in SRC by producer sex*, t (98) = 1.86, p < .05, η^2=.02. Three analyses were just shy of statistical significance: *mean # of thin females* by producer sex (*p*=.0515), *mean % of female characters with some nudity* by producer sex (*p*=.054), and *mean % of beautiful female characters* by producer sex (*p*=.053).

[33.] The number was calculated as follows. The total number of characters coded this year was 4,379. This number was divided by 100 to yield an average number of characters per film (43.79, sample wide 29.9% are female). We computed the total number of females for 67 films based on the distribution of character sex found in study one (67 films X 43.79=2,933.93; Males=2056.68493 or 70.1%, Females=877.24507 or 29.9%). Then, we estimated the number of males and females in 33 films based on the character sex distribution of female directed films found in study 2 (33 films X 43.79=1,445.07; Males=800.56878 or 55.4%; Females=644.50122 or 44.6%). Adding these estimates still yields 4,379 characters, but the total number of females jumps from 1,308 to 1,521.75, a nontrivial difference.

[34.] Robinson, R. K. (2006). Casting & caste-ing: Reconciling artistic freedom and antidiscrimination norms. *California Law Review, 95*, p. 1-74.

[35.] Cerridwen, A., & Simonton, D. K. (2009).

[36.] Cerridwen & Simonton's (2009) research found that there was no relationship between the proportion of women involved as producers, directors, or writers across 914 films and sex/nudity ratings as determined by Screen It!

[37.] Lauzen, M. M. (2008).

[38.] For a variety of popular press articles or blogs on different aspects of females in film and box office success, see Finke, N. (October 5, 2007). Warner's Robinov bitchslaps film women; Gloria Allred calls for Warner's boycott. *Deadline Hollywood*. http://www.deadline.com/hollywood/warners-robinoff-gets-in-catfight-with-girls/ Farhi, P. (2009, March, 15). Hollywood's men are mostly where the action is. *The Washington Post*. Style, EO3. Hornaday, A. (2009, October 25). With female characters, why does Hollywood fear that the stronger they are, the harder they fail? *The Washington Post*. Style. EO1. Doyle, S. (October 26, 2009). Strong women, weak box office. *Salon.com Life*. Retrieved January 29, 2010, www.salon.com/life/broadsheet/ feature/2009/10/26/women_in_film/print.html

[39.] Originally, film reviews from the country's leading critics and synopses from IMDb.com were consulted to inform decisions regarding the films' protagonists. While informative, these sources did not consistently reveal the main character. Two undergraduate coders then were trained by the second author on the four indicators listed above to determine protagonist identity. Some coding disagreements emerged and some decisions were difficult to render based on the information provided. In these instances, discussion resolved some discrepancies and watching a film through plot point 1 resolved others. To confirm the assignment of "female protagonist" to the 18 films, the second author watched each of these movies' trailers. The third author confirmed this process by watching a trailer from each of 100 films in the sample.

[40.] Two films posed a particular problem in selecting the female lead: *Because I Said So* and *Mr. Magorium's Wonder Emporium*. Both films ingénues were thrust into schemes devised by strong parental figures. Multiple individuals on our research team watched the films, and we collectively decided that Milly and Molly were female protagonists. After these decisions were made, a second group of evaluators assessed all of the films again using four criteria (Magill's description, trailer, title on front DVD cover, top billing) to ensure that no solo female leads were missed. This follow up check on the 100 movies confirmed some, but not all, of the judgments. When looking at the majority of marketing indicators, 13 films pointed to having a lone female protagonist. One film (*Because I Said So*) had an indicator for two separate solo protagonists (*Milly; Daphne*) and another indicator that a female/female buddy film was present. Three films (*Enchanted, Atonement, Freedom Writers*) were coded as "can't tell," as the markers pointed to either a female protagonist, an ensemble, or a "buddy" (male/female) film. Finally, the marketing content pointed to an ensemble film for *The Messengers*. Clearly, the indicators are not always unambiguous about the lead character in films. Given that all 18 films were watched multiple times in their entirety, we are confident that these films represent the subset of single solo female lead characters. It must be noted that two films reference roughly or almost equal male and female lead characters (*Knocked Up; Music & Lyrics*). We did not include these women or females in ensemble casts in our analysis, for the reason stated in study 3.

[41.] Initially, the coding looked for aspects of films that may be problematic in terms of gender stereotyping or from a critical feminist perspective. Descriptions of the films provided by coders allowed for inductive reasoning about themes that emerged across the narratives. The second round of coding relied on one of our earlier studies (Granados, A., & Smith, S. L. (2007). *A Qualitative Analysis of Female Protagonists in G-Rated Films.* Research report submitted to the See Jane Program at Dads and Daughters. Duluth, MI.) and other markers that emerged in conversation with the research team. A final codebook was assembled and refined by two coders. The pair watched a film separately, analyzed it, and compared answers. This process revealed problems with the codebook. Once the codebook was refined and finalized, two graduate and two undergraduate coders watched the 18 films. Each film was scrutinized by the first two authors of the study.

[42.] Using study 2 data, all writing credits were derived from IMDb.pro and included but was not limited to any individual listed for source material (e.g., novel, book, magazine article), screenplay, story, characters, and/or dialogue.

[43.] It must be noted that the total number of males and females included lead characters. We did not remove the female leads from the analysis as the number of films featuring a male protagonist, buddy-films (male/female, or male/male), or an ensemble casts were not estimated. The chi-square for *writer sex* by *lead character sex* was significant, X^2 (1) = 6.57, p < .05, φ=.26. A significant chi-square also emerged for *lead character sex* by all speaking *characters' sex* X^2 (1) = 60.955, p < .05, φ=.12

[44.] Polti, G., & Ray, L. (n.d.). *Thirty-six dramatic situations*. Boston, MA: The Writer Inc.

[45.] The film pairings can be grouped by type of protagonist: the heroes *(Hairspray & Freedom Writers*; *Nancy Drew & The Reaping; Premonition & The Messengers; The Golden Compass & Resident Evil: Extinction);* the lost *(Enchanted & Because I Said So*, *Mr. Magorium's Wonder Emporium & P.S. I Love You*; *No Reservations & The Nanny Diaries*); and the conflicted (*The Brave One & Perfect Stranger; Juno & Atonement).* An example of one of the pairings follows:

The Golden Compass & Resident Evil: Extinction. A brave, self-sufficient female puts herself in harm's way to protect others. Her environment is very similar to our own but boasts a few key differences; unbeknownst to her, she possesses superpowers that can save her world. A corrupt ruling power (The Magisterium in *GC*; The Umbrella Corporation in *RE*) feels threatened by her and uses its technology to hunt her down. While technology deployed by agents of the ruling power (a net in *The Golden Compass*, a mind-controlling satellite in *Resident Evil*) holds her briefly, she escapes and joins a group of vagabond outsiders who offer her protection. Using a recently acquired resource, she sets the group's destination: the heart of the rulers' heinous operation. Assisted by a loyal male ally, she pursues her independent, secret initiative and solely enters the rulers' lair. She is trapped in a cage and saved by a newfound relation from a laser's slice. While she wins this battle, the war is not over; in the film's final line, she voices her resolve to continue fighting, issues a challenge, and implies that the next showdown will be a group effort.

[46.] Kristof, N. D., & WuDunn, S. (2009). *Half the sky: Turning oppression into opportunity for women worldwide*. New York: Random House.

[47.] Smith, S. L., & Cook, C. A. (2008). Smith, S. L., et al. (2008).

[48.] Smith, S. L., et al. (2008).

[49.] Gladwell, M. (2000). *The tipping point*: *How little things can make a big difference.* New York: Little, Brown and Company.

[50.] Smith, S. L., & Cook, C. A. (2008).

Appendix A
List of 2007 Films in the Sample

Rank	Title	Rank	Title	Rank	Title
1	Spider-Man 3	35	Disturbia	69	30 Days of Night
2	Shrek the Third	36	No Country for Old Men	70	Fracture
3	Transformers	37	Fred Claus	71	Stardust
4	Pirates of the Caribbean: At…	38	1408	72	The Brave One
5	Harry Potter and the Order of…	39	The Golden Compass	73	The Heartbreak Kid
6	I Am Legend	40	Charlie Wilson's War	74	Freedom Writers
7	The Bourne Ultimatum	41	Saw IV	75	Smokin' Aces
8	National Treasure 2: Book of…	42	Stomp the Yard	76	The Messengers
9	Alvin and the Chipmunks	43	Surf's Up	77	The Number 23
10	300	44	Halloween	78	Good Luck Chuck
11	Ratatouille	45	Why Did I Get Married?	79	Mr. Bean's Holiday
12	The Simpsons Movie	46	TMNT	80	Breach
13	Wild Hogs	47	P.S. I Love You	81	Zodiac
14	Knocked Up	48	3:10 to Yuma	82	Balls of Fury
15	Juno	49	Sweeney Todd: The Demon …	83	Mr. Magorium's Wonder…
16	Rush Hour 3	50	Atonement	84	August Rush
17	Live Free or Die Hard	51	Resident Evil: Extinction	85	Daddy's Little Girls
18	Fantastic 4: Rise of the Silver…	52	Music and Lyrics	86	The Great Debaters
19	American Gangster	53	Are We Done Yet?	87	28 Weeks Later
20	Enchanted	54	This Christmas	88	We Own the Night
21	Bee Movie	55	Michael Clayton	89	Mr. Brooks
22	Superbad	56	Premonition	90	Hannibal Rising
23	I Now Pronounce You Chuck…	57	Dan in Real Life	91	The Nanny Diaries
24	Hairspray	58	The Kingdom	92	Mr. Woodcock
25	Blades of Glory	59	Shooter	93	Nancy Drew
26	Ocean's Thirteen	60	License to Wed	94	The Mist
27	Ghost Rider	61	Underdog	95	The Reaping
28	Evan Almighty	62	No Reservations	96	Grindhouse
29	Meet the Robinsons	63	Because I Said So	97	Sicko (not included)
30	Norbit	64	Aliens vs. Predator - Requiem	98	Across the Universe
31	The Bucket List	65	The Water Horse: Legend…	99	Perfect Stranger
32	The Game Plan	66	There Will Be Blood	100	Hot Fuzz
33	Beowulf	67	Epic Movie	101	War
34	Bridge to Terabithia	68	Hitman		

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Amy D. Granados is a doctoral student at the Annenberg School for Communication & Journalism at USC. Her research interests pertain to gender and the media as well as the relationship between sexualized content and the production process. She has co-authored multiple chapters, conference papers, and articles on gender and the media. Most recently, Ms. Granados co-authored a chapter in the third edition of *Media Effects* on sex role stereotyping in television and film and an essay in the aforementioned *Shriver Report*.

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