



**The Allure of Aphrodite: How Gender-Congruent Media Portrayals Impact Adult Women's Possible Future Selves**

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**The Allure of Aphrodite:**

**How Gender-Congruent Media Portrayals Impact Adult Women's Possible Future Selves**

The present study investigated how media exposure affects how non-college women envision their futures. Over five days, a prolonged exposure experiment presented childless women (aged 21-35) with magazine portrayals of females in gender-congruent (mother/homemaker or beauty ideals) or gender-incongruent (professional) social roles. Responses to an open-ended question revealed that 3 days after media exposure, only gender-congruent roles remained salient. Exposure to homemaker portrayals induced more thoughts about possible future selves and fostered concerns about motherhood and career roles; it also produced more positive affective valence compared to exposure to portrayals of professional women, particularly among women with gender-congruent life circumstances. Exposure impacts were mediated by the extent to which women linked the magazine portrayals to their own possible future selves.

*Keywords:* gender roles, prolonged exposure experiment, adult women, possible future selves, role congruity theory

## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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**The Allure of Aphrodite:****How Gender-Congruent Media Portrayals Impact Adult Women's Possible Future Selves**

Since the days of Greek mythology, humankind has been fascinated with women's beauty and fertility, personified by the Greek goddess Aphrodite. That fascination apparently has not dissipated, even though in the last century women's lives and rights have greatly extended beyond traditional roles. For instance, over the last 40 years, the number of women in the workforce has increased dramatically. Particularly, women with children are joining the workforce to a greater extent than in the past (U.S. Department of Labor, 2013). Despite this societal shift, women still take on the majority of work at home, and in fact average more work hours per week than men when unpaid work is considered (United Nations, 2010). Therefore, women are taking on a new social role by working outside the home, yet the expectations associated with the traditional roles concerning home and appearance are not waning. The media may contribute to such gender-congruent lifestyles: Ample content analyses have shown that women are both underrepresented and portrayed in gender-typed fashion on TV, in magazines, and in videogames, etc. (e.g., Scharer, 2013). Exposure to these portrayals could reinforce gender-congruent self-concepts among women.

Drawing on the notion that gendered roles strongly influence occupation and life path choices (Eccles, 1994; Su, Round, & Armstrong, 2009), the present work examines how media exposure affects adult women regarding their possible future selves (PFS). Given that PFS guide individuals' current motivations and behaviors, and that media can reinforce expectations for the self, it is imperative to empirically test the relationship between the two (Eagly, Eastwick, & Johannesen-Schmidt, 2009; Signorielli, 1993). To examine these media impacts, the present investigation first reviews how women are portrayed in the media and then discusses

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3 1 conceptualizations of gender, based on role congruity theory, and PFS. Hypotheses derived from  
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5 2 these frameworks will be tested in an empirical study in which childless, adult women are  
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8 3 exposed to portrayals of women in either mother/homemaker roles, beauty ideal roles, or  
9  
10 4 professional roles.

**Female Role Portrayals in the Media and Their Impacts**

15 6 Images of women representing idealized beauty and sex appeal have dominated  
16  
17 7 mainstream media for decades (see overview by Scharrer, 2013). Analyses of television and film  
18  
19 8 have revealed that women are overwhelmingly shown as objects of physical attractiveness and  
20  
21 9 sexual desirability (e.g., Lauzen, Dozier, & Horan, 2008; Smith & Granados, 2009). For print  
22  
23 10 media, a study by Lindner (2004) suggests that there has been a "remarkable increase" of  
24  
25 11 sexualized portrayals of women in magazine advertisements since the 1970s. Nearly a hundred  
26  
27 12 empirical studies have demonstrated that exposure to idealized female beauty imagery in the  
28  
29 13 media leads to decreased state self-esteem, has a negative effect on current mood states, leads to  
30  
31 14 body dissatisfaction, and induces higher body-focused anxiety (for a review, see Grabe, Ward, &  
32  
33 15 Hyde, 2008). In fact, there has been a general call for decreasing the number of female models  
34  
35 16 who represent stereotypical beauty ideals, and instead media should provide more  
36  
37 17 representations of women in non-traditional, career roles (e.g., Covert, 2003; Davies, Spencer,  
38  
39 18 Quinn, & Gerhardstein, 2002). It is puzzling, then, that the media outlets featuring idealized and  
40  
41 19 gender-congruent portrayals remain widely popular among women—perhaps women derive  
42  
43 20 enjoyment from them after all. Social role theory and gender congruity theory provide insight  
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45 21 into why women may enjoy these media messages and are reviewed in the following sections.  
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**Gender: Roles, Congruity, and Conformity**

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55 23 The concept of gender goes beyond the biological assignment of sex and instead  
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1 encompasses what it means to be a man or a woman. Social role theory has been used to better  
2 understand the concept of gender by explaining socially constructed gender norms (i.e.,  
3 expectations and obligations) aligned with living as and embodying a certain gender (Eagly,  
4 1987). Media play a significant role in the formation and reinforcement of both social norms  
5 (Bandura, 2001) and gender norms (Bussey & Bandura, 1999). Prior empirical investigations  
6 have primarily examined interpersonal outcomes associated with adherence to and deviation  
7 from social norms. Specifically, when considering gender-typed norms, role congruity theory  
8 provides a framework for exploring conformity outcomes. However, there is a paucity of  
9 research applying role congruity theory to mediated contexts.

10         The work on gender roles was largely driven by social cognition (Eagly, 1987) and  
11 information processing perspectives (e.g., Bem, 1981). A prominent approach has been Eagly's  
12 role congruity theory (Eagly, 1987; Eagly & Karau, 2002). According to role congruity theory,  
13 negative attitudes toward a non-conforming woman occur when individuals perceive that the  
14 woman deviates from the norms outlined by gender roles, and her behavior is seen as  
15 incongruent with expectations (e.g., a woman occupies an agentic, leadership role in the  
16 workplace; Eagly & Karau, 2002). Following this, women who do not adhere to traditional  
17 gender roles are perceived as unfavorable, and their agentic behavior is devalued. Gender-typed  
18 norms support the notion that success in the workplace is dependent on masculine traits, which  
19 may influence occupational segregation by gender (Cejka & Eagly, 1999). For example, a  
20 woman who does not behave within the culturally expected norms (i.e., behavior that is "agentic"  
21 in nature) will be treated more harshly than a woman who behaves in a more "communal" way  
22 (e.g., Ritter & Yoder, 2004). Further, in line with role congruity theory, women who demonstrate  
23 warmth and affection are socially rewarded, whereas those who demonstrate more masculine

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3 1 (e.g., self-promoting, direct, and dominant) behaviors are socially punished (Diekman &  
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6 2 Goodfriend, 2006). However, this does not explain how a woman's perception of whether or not  
7  
8 3 her own behavior follows gender norms affects her self-concept and leads to self-regulation.

9  
10 4 Accordingly, scholars expanded the role congruity perspective to affective consequences  
11  
12 5 of gender conformity on self-evaluations, as opposed to evaluations of others (e.g., Good &  
13  
14 6 Sanchez, 2010; Wood, Christensen, Hebl, & Rothgerber, 1997). Specifically, they proposed that  
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16 7 gender norms are incorporated into the ideal self; the extent to which they are incorporated into  
17  
18 8 the ideal self influences the positive affect individuals will experience from adherence to these  
19  
20 9 norms (Higgins, 1987). For instance, Wood et al. (1997, p. 523) noted: “consensually held  
21  
22 10 [gender]-typed norms may be adopted as personal standards against which people judge their  
23  
24 11 own behavior [...], and people are likely to feel good about themselves when they conform to  
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26 12 these valued personal standards.” In that case, gender-congruent behavior would not only be  
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28 13 reinforced by others, but also by one's own cognitions about the self. In other words, affective  
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30 14 responses to one's own behavior also reinforce gender norms, if the individual views such norms  
31  
32 15 as relevant. Along these lines, seeing gender-congruent portrayals in the media can be rewarding  
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34 16 through positive affect resulting from perceived gender conformity, especially if one's own  
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36 17 conduct converges with traditional gender roles. This phenomenon may translate not only into  
37  
38 18 short-lived affective experiences, but may have further implications for how women view their  
39  
40 19 PFS and make decisions about their future.

**Possible Future Selves**

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42 20 How individuals conceptualize themselves shapes their thoughts, emotions, and  
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44 21 behaviors (Leary & Tangney, 2003). Self-concepts have a temporal dimension pertaining to past  
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46 22 self, current self, and possible future self (e.g., ‘I was not athletic as a child, but now as college  
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1 student, I run every day and hope to participate in a marathon one day'). Possible future selves  
2 (PFS) "represent specific, individually significant hopes, fears, and fantasies" (Markus & Nurius,  
3 1986, p. 954) related to a version of the self that an individual *might* become in the future. Ideas  
4 of which values, beliefs, and roles one might embody in the future are dependent on the self in  
5 the past, as well as conceptions of the self in the current state. PFS guide individuals' current  
6 motivations, behaviors, and decision-making. Throughout the life span, PFS remain relevant  
7 (Cross & Markus, 1991) as individuals continue to envision what their future could look like,  
8 and PFS affect behavior and important life decisions. For example, PFS can impact life partner  
9 selection: Women who envision themselves as primary homemakers in the future are more likely  
10 to place importance on provider characteristics in their future mate selections (Eagly, Eastwick,  
11 & Johannesen-Schmidt, 2009). Further, Brown and Diekmann (2010) found that distant possible  
12 selves aligned with gender-typed social roles, such that women listed more family selves than  
13 men. Interestingly, research has shown that, if an intervention induces a shift in PFS, changes in  
14 self-regulatory behavior may occur (Oyserman, Bybee, & Terry, 2006). Given that media may  
15 influence PFS and thus subsequent behavior and life decisions, it is important to examine how  
16 repetitive, prolonged exposure to gender-(in)congruent media portrayals affects them.

**Prior and Present Empirical Research on Media's Impact on Life Outlook**

17 Young, college-aged adults explore their futures and contemplate important relational  
18 and professional decisions at this life stage (Arnett, 2000; Peake & Harris, 2002). These  
19 decisions have been shown to be influenced by media exposure (Ex, Janssens, & Korzilius,  
20 2002; Segrin & Nabi, 2002; Signorielli, 1993; Authors, 2012). For example, a prolonged  
21 exposure experiment (Authors, in press) presented college women with magazine pages showing  
22 females in either professional or caretaker roles, as beauty ideals, or pages without individuals  
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3 1 shown, and revealed that portrayals of professionals and caretakers instigated more negative  
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5 2 responses related to personal future than beauty ideals. While much of the media exposure  
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7 3 literature has focused on younger, college-aged adults, less empirical work has examined post-  
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9 4 graduates. Yet women are having children at a later age than in the past: The average age of first-  
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11 5 time mothers is now about 25 years (Mathews & Hamilton, 2009), with pregnancy rates  
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13 6 declining for women aged 20-25 and increasing for those over 35 (Martin, Hamilton, Ventura,  
14  
15 7 Osterman, & Mathews, 2013). Evidently, important life decisions occur in the mid-to-late  
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17 8 twenties and into the thirties and affect whether and how women will balance multiple roles in  
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19 9 the future. Thus, media impacts on this population regarding future visions deserve close  
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21 10 attention. The present investigation examines the effect of prolonged exposure to portrayals of  
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23 11 women in magazine advertisements and articles on adult women who are in their twenties and  
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25 12 early thirties and currently not working toward an undergraduate degree.  
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32 13 A previous analysis of a subsample from the data collection presented here showed that  
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34 14 prolonged exposure to homemaker or beauty portrayals increased the number of children that  
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36 15 non-married, childless women desired (Authors, under review). Compared to baseline, women  
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38 16 exposed to professional portrayals indicated that they wanted to wait longer before having their  
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40 17 first child. These findings support the notion that media exposure can affect fertility desires.  
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42 18 However, further analysis is needed to investigate effects of media exposure on PFS more  
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44 19 broadly.  
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48 20 Hence, the present work focuses on media impacts among married and non-married  
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50 21 childless women in the 21-35 years age range regarding their PFS and the affective valence of  
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52 22 these outlooks. We expect that prolonged exposure to portrayals of women in different social  
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54 23 roles affects visions of PFS such that portrayed roles are rendered salient, even days after the last  
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3 1 exposure. Relying on gender-typed norms as described by various scholars (e.g., Gordon, 2000;  
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5 2 Scharrer, 2013), the study utilizes portrayals of women in mother/homemaker roles, beauty ideal  
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7 3 roles, and professional roles to examine how exposure to media portrayals of these gender-  
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9 4 (in)congruent roles affects adult women's PFS. Given that previous research demonstrated that  
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11 5 prolonged exposure to portrayals of women in mother/homemaker roles fosters concerns about  
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13 6 family, prolonged exposure to portrayals of women in beauty ideal roles fosters concerns about  
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15 7 appearance, and prolonged exposure to portrayals of women in professional roles fosters  
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17 8 concerns about career among female college students (Authors, 2014), we predict that the same  
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19 9 will hold true for adult women. Based on social role theory and the gender conformity  
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21 10 perspective outline above, consensually held gender-typed norms may become incorporated into  
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23 11 personal standards, which people use to evaluate themselves and what they strive for in their  
24  
25 12 possible future selves. Accordingly, exposure to portrayals of a gender-congruent role in the  
26  
27 13 media should render concerns related to the norm more salient to individuals of the portrayed  
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29 14 gender, as they perceive greater relevance of the norm for their own gender. Hence, the  
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31 15 following hypotheses are proposed:

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39 16 H1: Prolonged exposure to magazine portrayals of women in the mother/homemaker role  
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41 17 increases concerns about future family and children compared to exposure to portrayals of  
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43 18 women in the (H1a) beauty ideal and (H1b) professional roles.

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51 19 H2: Prolonged exposure to magazine portrayals of women in the beauty ideal role  
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53 20 increases concerns about future appearance compared to exposure to portrayals of women in the  
54  
55 21 (H2a) mother/homemaker and (H2b) professional roles.

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23 22 H3: Prolonged exposure to magazine portrayals of women in the professional role  
increases concerns about future career compared to exposure to portrayals of women in the (H3a)

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3 1 beauty ideal and (H3b) mother/homemaker roles.

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5 2 Next, we propose that exposure to roles that women have yet to fulfill induces more  
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8 3 concerns about PFS. Thus, portrayals of mother/homemaker roles may induce more concerns for  
9  
10 4 adult, childless women when thinking about their future than portrayals of women in other roles.

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12 Hence, we predict:

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14 6 H4: Prolonged exposure to magazine portrayals of women in mother/homemaker role  
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17 7 leads to mentioning more concerns about their own futures compared to exposure to portrayals of  
18  
19 8 women in beauty ideal or professional roles.

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21 9 Additionally, we draw on the notion of role congruity and resulting affective responses as  
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23 10 outlined above for the next hypotheses, in which H5a-e pertain to portrayals of the  
24  
25 11 mother/homemaker role versus portrayals of women in the professional role, whereas H6a-e  
26  
27 12 pertain to portrayals of beauty ideal role versus portrayals of women in the professional role.  
28  
29 13 Role congruity theory suggests that onlookers evaluate individuals more positively when these  
30  
31 14 individuals comply with the generally held norms for their gender (Eagly, 1987), compared to  
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33 15 observing individuals who diverge from these norms and whose actions are incongruent with the  
34  
35 16 expectations associated with their gender. The hypotheses H5a and H6a extend this rationale to  
36  
37 17 the affective valence of possible future selves as affected by exposure to gender-(in)congruent  
38  
39 18 media portrayals. Further, drawing on the notion of gender conformity and resulting affective  
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41 19 responses regarding oneself, the affect linked to possible future selves should vary with the  
42  
43 20 extent to which individuals already adhere to gender-typed norms in their actual lives, such that  
44  
45 21 greater adherence produces *more* positive affect upon exposure to portrayals of the norms. In  
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47 22 other words, we propose that the female gender roles are relevant for all women, but how women  
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49 23 respond to related portrayals will depend on the extent to which they comply with them. This  
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## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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3 1 rationale leads to H5b-d and H6b-d that consider individuals' life circumstances as they relate to  
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5 2 gender-typed norms. Specifically, marital status (being married), body mass index (BMI), and  
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7 3 work status (number of work hours per week) will be utilized to capture the extent to which  
8  
9 4 individuals' circumstances converge with gender-typed norms for women's lifestyles. Finally,  
10  
11 5 two hypotheses (H5e and H6e) test whether PFS is the actual link between exposure and  
12  
13 6 outcomes as proposed in the theoretical rationale for the present work.  
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17 7 H5a: Prolonged exposure to magazine portrayals of women in the mother/homemaker  
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19 8 role induces a more positive affective valence related to PFS than exposure to the gender-  
20  
21 9 incongruent portrayals of women in the professional role.  
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25 10 H5b-d: The effect of exposure condition resulting from gender conformity, proposed in  
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27 11 H5a, will be greater for women adhering to traditional gender norms such that women in the  
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29 12 mother/homemaker portrayals group who are married (H5b), who have a lower BMI (for  
30  
31 13 operationalization, see below; H5c), and/or who work less per week (H5d) will demonstrate  
32  
33 14 more positive affect than women in the professional portrayals group who are married, have a  
34  
35 15 lower BMI, and/or who work less per week.  
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39 16 H5e: The impact on affective valence specified in H5a is mediated by the extent to which  
40  
41 17 women link the magazine portrayals to their own PFS.  
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45 18 H6a: Prolonged exposure to magazine portrayals of women in the beauty ideal role  
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47 19 induces a more positive affective valence related to PFS than exposure to the gender-incongruent  
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49 20 portrayals of women in the professional role.  
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52 21 H6b-d: The effect of exposure condition resulting from gender conformity, proposed in  
53  
54 22 H6a will be greater for women adhering to traditional gender norms such that women in the  
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56 23 beauty ideal portrayals group who are married (H6b), who have a lower BMI (; H6c), and/or  
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3 1 who work less per week (H6d) will demonstrate more positive affect than women in the  
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5 2 professional portrayals group who are married, have a lower BMI, and/or who work less per  
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8 3 week.H6e: The impact on affective valence specified in H6a is mediated by the extent to which  
9  
10 4 women link the magazine portrayals to their own PFS.

### 5 Method

#### 6 Overview

7 Adult white women between 21 and 35 years of age ( $N = 214$ ) who were not enrolled in  
8 any undergraduate courses participated in an online prolonged exposure experiment (for similar  
9 research designs, see Authors, in press; Rössler & Brosius, 2001; Zillmann & Bryant, 1988; for  
10 analyses of a subsample from the same research procedure, see Authors, under review). All  
11 participants received \$50 for completing the study. In the first session, respondents completed a  
12 brief sign-up for a study allegedly about enjoyment of magazine journalism and advertising. In  
13 the second session, participants completed baseline measures on a Friday. Then, for five  
14 sessions, respondents were exposed to media messages on the following weekdays (Monday-  
15 Friday) and completed a final post-test session on the following Monday. During the five  
16 exposure sessions, the three experimental groups viewed magazine pages featuring women in  
17 either mother/homemaker portrayals, beauty ideal portrayals, or professional portrayals, and  
18 completed evaluation questions after viewing to enforce the cover story. The experimental  
19 groups were developed to reflect both the stereotypical portrayal of women in contemporary  
20 media and common social roles for women.

#### 21 Procedure

22 **Recruitment.** The recruitment announced an online, 10 day study on "magazine  
23 advertising and journalism," and asked for adult women between the ages of 21 and 35 to

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3 1 participate. Upon completing the study, participants received \$50 per a personal check, an  
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5 2 Amazon gift card, or a PayPal deposit. The announcement did not reference ethnicity or parental  
6  
7 3 status. Popular social networking sites (e.g., Facebook), online classified ads (e.g., Craigslist),  
8  
9 4 and emails sent to students enrolled at a large Midwestern university (who were asked to forward  
10  
11 5 the message to adult women) served to distribute the recruitment announcement. Almost half of  
12  
13 6 the participants were recruited through online networking sites and classifieds (51.5%); a quarter  
14  
15 7 of participants through receiving an email with recruitment information (27%); and the rest  
16  
17 8 through ‘word of mouth’ or ‘other’ (20.5%). Although the recruitment method did not allow for  
18  
19 9 a representative sample, statistical methods (see section ‘Group Assignment’ below) ensured that  
20  
21 10 the experimental groups were equivalent; thus, differences in the groups’ responses reflect the  
22  
23 11 media exposure effects of interest.

24  
25 12 **Sign-up.** After providing consent, participants indicated their biological sex, ethnicity,  
26  
27 13 educational achievement, relationship status, maternal status, and desire for children. Height and  
28  
29 14 weight were embedded in various distractors (e.g., “Do you own a car?”) and were subsequently  
30  
31 15 used to calculate BMI.

32  
33 16 **Baseline.** On the Friday before the media exposure sessions were set to begin,  
34  
35 17 participants answered questions related to their habitual magazine use, psychological states and  
36  
37 18 traits, and demographics (see ‘Participant Characteristics’ section). At the end of the session,  
38  
39 19 participants were thanked for their time and notified that they would receive the link for the next  
40  
41 20 session in three days.

42  
43 21 **Media exposure sessions.** On the following Monday, the five daily media exposure  
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45 22 sessions began. For each weekday, the session started with “Welcome back for a daily session of  
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47 23 our online study on media enjoyment! Today you will look at several magazine pages. We will  
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3 1 then ask you about your personal impressions and evaluations of these pages.” Participants then  
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6 2 clicked through the magazine pages much as they would if they were turning the pages of a  
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8 3 magazine (see ‘Stimuli and Manipulation Check’ section for a description). To support the cover  
9  
10 4 story of a study on magazine journalism and advertising, following perusal of the magazine  
11  
12 5 pages, participants answered several distractor questions, such as, “This article is interesting” and  
13  
14  
15 6 “This ad is informative” on 7-point Likert scales ranging from ‘1 = not at all’ to ‘7 = extremely.’  
16

17  
18 7 **Post-test session.** The post-test session was completed three days after the last daily  
19  
20 8 media exposure session and presented the same psychological measures as the baseline session.  
21  
22 9 Then participants responded to the prompt: “Over the past 7 days, how much have you thought  
23  
24 10 about your current life situation and your future? What were your thoughts? How much have you  
25  
26 11 thought about your goals in life and your relationships? What were your thoughts? Along these  
27  
28 12 lines, please type any thoughts or feelings that come to your mind in the box below. You may  
29  
30 13 type as much as you wish.”  
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33  
34 14 **Group Assignment**

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36 15 For the sign-up session, the sample consisted of 589 adult women. Socio-demographic  
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38 16 variables were then used to invite only a specific subsample to complete the baseline session. A  
39  
40 17 total of 214 White, childless women, between the ages of 21 and 35 ( $M = 25.91$ ,  $SD = 3.19$ ), and  
41  
42 18 who were not enrolled in undergraduate courses at the time completed all the sessions and were  
43  
44 19 considered in the analyses. Based on a hierarchical cluster analysis with variables described in  
45  
46 20 detail below (see ‘Participant Characteristics’ with Ward method and squared Euclidian  
47  
48 21 distances), a randomized complete block design was applied to equally represent participant  
49  
50 22 characteristics of interest across conditions. This method ensured that each resulting cluster was  
51  
52 23 proportionally represented in each experimental group while maintaining random assignment to  
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## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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1 conditions (see Authors, in press, for more details on this approach). The experimental groups  
2 were equivalent regarding the following measures: age, self-esteem, gender role attitudes,  
3 habitual magazine use, desire for children, education level, work hours, relationship status, and  
4 BMI (measurements explained below). This approach ensured that the groups were equivalent  
5 regarding baseline measures that could affect hypothesis testing. Participants with complete data  
6 were equally distributed across experimental groups—70 for *mother/homemaker*, 77 for *beauty*  
7 *ideal*, and 67 for *professional*.

### 8 **Participant Characteristics**

9 **Self-esteem.** Participants completed the 20-item Self-Esteem Scale (Heatherton &  
10 Polivy, 1991) with a mean score of 3.55 ( $SD = .57$ ). Statements were rated on a 5-point Likert  
11 scale ranging from ‘1 = completely disagree to 5 = completely agree’ (Cronbach’s  $\alpha = .89$ ). An  
12 example item from the scale was: “I am worried about whether I am regarded as a success or  
13 failure.” Self-esteem was utilized as a variable to create equivalent groups.

14 **Gender role attitudes.** Thirteen items on gender roles attitudes (Davis & Greenstein,  
15 2009) were presented with a 5-point Likert scale from ‘1 = strongly disagree to 5 = strongly  
16 agree’ (Cronbach’s  $\alpha = .83$ ;  $M = 1.77$ ,  $SD = .55$ ). An example item is: “Women are much happier  
17 if they stay at home and take care of their children.” Six distractor items on individualism-  
18 collectivism (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988) were interspersed among the  
19 self-esteem and gender role attitude statements. Participants’ attitudes toward gender roles were  
20 also used to create equivalent groups.

21 **Desire for children.** Participants reported the number of children they desired in the  
22 baseline session. The mean number of children desired was 1.80 ( $SD = 1.36$ ). The variable was  
23 used in the creation of equivalent groups.

## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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1           **Education.** Participants indicated their highest educational attainment, with 7.5% having  
2 a high school or associate's degree, 58.4% had a bachelor's degree, 26.6% a master's degree, and  
3 7.5% a Ph.D. Education level was used in the process of creating equivalent groups.

4           **Habitual magazine use.** For the past 7 days, on average, participants reported reading  
5 women's magazines (fashion/celebrities/lifestyle/bridal/cooking) 2.02 times ( $SD = 1.31$ ) and  
6 current affairs magazines (news/business) an average of 1.77 times ( $SD = 1.51$ ). The variable  
7 was used to create equivalent groups.

8           **Work hours.** In the sign-up session, participants were asked to indicate the average  
9 number of hours they work each week. The work hours averaged at  $M = 37.9$  ( $SD = 14.3$ ). Two  
10 groups were subsequently created: those who work up to 39 hours per week ( $n = 63$ ), and those  
11 who work 40 hours or more per week ( $n = 150$ ); work hour entries were missing for ten  
12 individuals that were categorized as working up to 39 hours if they had indicated to be 'currently  
13 not working' or 'working part-time,' or as working 40 hours or more if they had indicated to be  
14 'working full time' or 'working both full-time and part-time.' From this measure, 60.3% of  
15 participants reported they worked full-time, 9.8% full-time and part-time, 18.7% part-time only,  
16 11.2% currently not working.

17           **Relationship status.** In the sign-up session, participants indicated their relationship status  
18 as either single, dating, in a steady relationship, married, divorced, or widowed. Twenty seven  
19 percent reported they were single, 6.1% were dating, 42.1% were in a steady relationship, and  
20 23.4% were married), Two groups were created based on these responses: married ( $n = 50$ ), and  
21 not married ( $n = 164$ ).

22           **BMI.** In the sign-up session, participants were asked to indicate their height and weight  
23 embedded in various distractor questions. Responses were then used to calculate BMI ( $M = 25.5$ ,



## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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3 1 *SD* = 5.90). For the final sample with complete data entries, three groups of approximately the  
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5  
6 2 same size were created: 22 or less ( $n = 74$ ), 22.1 through 25.9 ( $n = 69$ ), and 26 or greater ( $n =$   
7  
8 3 69). This three-level variable for BMI was initially used as an independent variable in  
9  
10 4 hypotheses testing, but was dropped from the analysis (for details see 'Results' section) to avoid  
11  
12 5 small cell sizes. None of the other results changed in terms of their significance as a result of  
13  
14 6 dropping BMI as an independent variable. It was subsequently used as a continuous, control  
15  
16 7 variable throughout the analyses.

**8 Measure of Possible Future Self Link in Daily Sessions**

9  
10 9 After each daily media exposure session, a statement (on a 7-point Likert scale, with '1 =  
11  
12 10 not at all' and '7 = extremely' as anchors) captured to what extent the women linked the  
13  
14 11 portrayals on the magazine pages to their own PFS: "I would like to be like the persons shown on  
15  
16 12 the magazine pages." The five scores for this measure from the five daily sessions were highly  
17  
18 13 consistent (Cronbach's  $\alpha = .92$ ) and thus condensed into a new variable labeled 'PFS link' ( $M =$   
19  
20 14 3.30,  $SD = 1.47$ ). This question was embedded in distractor items such as "I enjoyed  
21  
22 15 viewing/reading these magazine pages" to strengthen the cover story of a magazine enjoyment  
23  
24 16 study.

**21 Measures Based on Open-Ended Question in Post-Session**

22  
23 18 All 214 participants responded to an open-ended question in the post-test session.  
24  
25 19 Participants were asked to respond to the following prompt: "Over the past 7 days, how much  
26  
27 20 have you thought about your current life situation and your future? What were your thoughts?  
28  
29 21 How much have you thought about your goals in life and your relationships? What were your  
30  
31 22 thoughts? Along these lines, please type any thoughts or feelings that come to your mind in the  
32  
33 23 box below. You may type as much as you wish." They typed 106 words on average ( $SD = 83$ ,

## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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2  
3 1 min = 1, max = 621) and 446 characters on average ( $SD = 343$ , min = 5, max = 2523). The  
4  
5 2 experimental groups did not differ in the extent to which they responded to the question ( $n.s.$ ).  
6  
7 3 The responses were coded by two trained coders who were unaware of the experimental  
8  
9 4 condition in which the responses originated. To establish coding reliability, 10% of the sample  
10  
11 5 was coded by two coders who worked independently (based on recommendations by  
12  
13 6 Krippendorff, 2011). Coding for all *concerns* (see below) proved to be reliable (Krippendorff's  $\alpha$   
14  
15 7  $\geq .78$ ). For coding of *affective valence of thoughts about future* (see below), Krippendorff's  
16  
17 8 alphas were at .88 or higher. The remaining 90% of the material was coded by one of the trained  
18  
19 9 coders.  
20  
21  
22  
23

24  
25 10 **Concerns.** Concerns related to various social roles, including romantic, family, career,  
26  
27 11 physical appearance, and school, were coded to determine if participants mentioned these roles.  
28  
29 12 The percentages reported below are based on the entire sample ( $N = 214$ ). Social roles labeled  
30  
31 13 "romantic" included comments on current and potential future significant others (41.6%).  
32  
33 14 Mentions of "family" roles included comments on future children and current family situations  
34  
35 15 (20.1%). Mentions of "career" roles pertained to job responsibilities, career paths, opportunities  
36  
37 16 for work, and potential job (dis)satisfaction (55.1%). Physical "appearance" included any  
38  
39 17 mention of personal appearance, both current and future (8.9%). Mentions of "school" included  
40  
41 18 comments on deciding to return to school, pursuing graduate school, and other school situations  
42  
43 19 (20.1%). Additionally, the total number of role concerns mentioned (0-5) was calculated ( $M =$   
44  
45 20 1.27,  $SD = 1.28$ ).  
46  
47  
48  
49

50  
51 21 **Affective valence of thoughts about future.** Mentions of positive affect (happy, excited,  
52  
53 22 confident, optimistic, hopeful, blessed, thankful, content) and negative affect (angry, sad,  
54  
55 23 anxious, scared, insecure, uncertain, frustrated, stressed, pessimistic) were coded. Descriptive  
56  
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## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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1 statistics were  $M = 1.08$  ( $SD = 1.10$ , range 0 to 8) for positive affect and  $M = .58$  ( $SD = .84$ ,  
2 range 0 to 7) for negative affect. For a more parsimonious analysis, a difference score between  
3 the number of mentions of positive and negative affect was computed ( $M = 0.62$ ,  $SD = 1.92$ ,  
4 range -5 to 7), with higher scores indicating more positive affective valence.

**Stimuli and Manipulation Check**

5  
6 In each of the five daily media exposure session, participants viewed eight magazine  
7 articles, eight magazine advertisements, and two distractor pages showing no individuals, in line  
8 with the experimental group manipulation. Thus, each condition was comprised of 90 pages from  
9 contemporary magazines. Articles and ads alternated with the two distractor pages interspersed.  
10 The same distractor pages were used in all three conditions. To avoid sequence effects, the  
11 presentation order of the pages was reversed for half of the participants in each condition.  
12 Pairwise mean comparisons ensured that there were no significant differences between the two  
13 different orders in the total number of concerns mentioned or the affective difference scores (see  
14 Table 1 for details). Stimuli pages were adopted from an earlier study (Authors, in press) and  
15 featured women in either mother/homemaker portrayals, beauty ideal portrayals, or professional  
16 portrayals. The mother/homemaker condition presented magazine pages from *Better Homes and*  
17 *Gardens*, *Family Circle*, *Health*, *Ladies' Home Journal*, *Parenting*, *Parents*, and *Working*  
18 *Mother*. The beauty ideal condition presented pages from *Shape*, *Vogue*, *Allure*, and *Self*. The  
19 professional condition comprised pages from *Fast Company*, *Newsweek*, and *Business Week*. All  
20 manipulated stimuli presented women in a positive manner; no women were presented with  
21 negative expressions. A stimuli test (see details described by Authors, under review)  
22 demonstrated that the magazine pages represented the portrayals as desired.

**Results**

## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

18

1  
2  
3 **1 Concerns**

4  
5  
6 2 H1 predicted that prolonged exposure to magazine portrayals of women in the  
7  
8 3 mother/homemaker role would increase concerns about future family and children compared to  
9  
10 4 exposure to portrayals of women in the (H1a) beauty ideal and (H1b) professional roles. Chi  
11  
12 5 square tests (see Table 2) yielded that the 29.0% of women who mentioned concerns about  
13  
14 6 family in the mother/homemaker portrayals group ( $n = 70$ ) differed significantly from the 11.7%  
15  
16 7 of women who mentioned concerns about family in the beauty portrayals group ( $n = 77$ ),  $\chi^2(1, N$   
17  
18 8  $= 147) = 6.84, p = .009$ . This finding supports H1a. However, the 29.0% of women who  
19  
20 9 mentioned concerns about family in the mother/homemaker portrayals group ( $n = 70$ ) did not  
21  
22 10 differ from the 20.9% of women who voiced concerns about family in the professionals  
23  
24 11 portrayals group ( $n = 67$ ), (*n.s.*). Thus H1b was not supported. A post hoc chi square analysis  
25  
26 12 was conducted to determine if those in the mother/homemaker portrayals group mentioned more  
27  
28 13 concerns about family when compared to all other participants taken together. Results indicate  
29  
30 14 that women in the mother/homemaker portrayals group ( $n = 70$ ) mentioned concerns about  
31  
32 15 family three days after the last exposure significantly more often than all other participants ( $n =$   
33  
34 16 144), 29.0% compared to 16.0% respectively,  $\chi^2(1, N = 214) = 4.90, p = .027$ . Thus H1 was  
35  
36 17 partially supported.

37  
38  
39 18 H2 predicted that prolonged exposure to magazine portrayals of women in the beauty  
40  
41 19 ideal role would increase concerns about future appearance compared to exposure to portrayals  
42  
43 20 of women in the (H2a) mother/homemaker and (H2b) professional roles. The 15.6% of women  
44  
45 21 in the beauty ideal portrayals group ( $n = 77$ ) indicated concerns about appearance significantly  
46  
47 22 more frequently when compared to the 4.3% of women in the mother/homemaker portrayals  
48  
49 23 group ( $n = 70$ ),  $\chi^2(1, N = 147) = 3.35, p = .026$ , which supports H2a. Women in the beauty  
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## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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3 1 ideals group ( $n = 77$ ) also tended to mention concerns about appearance more frequently than  
4  
5 2 women in the professional portrayals group ( $n = 67$ ), 15.6% compared to 6.0%, but this  
6  
7  
8 3 comparison fell short of significance,  $\chi^2(1, N = 144) = 4.98, p = .067$ . Thus, H2b was not  
9  
10 4 supported. Further, a post hoc chi square analysis was conducted to determine if those in the  
11  
12 5 beauty ideal portrayals group mentioned more concerns about family when compared to all other  
13  
14 6 participants taken together. Results indicate that women in the beauty ideal portrayals group ( $n =$   
15  
16 7 77) mentioned concerns about future appearance three days after the last exposure significantly  
17  
18 8 more often than all other participants ( $n = 137$ ), 15.6% compared to 5.1% respectively,  $\chi^2(1, N =$   
19  
20 9 214) = 6.59,  $p = .010$ . Thus, H2 was partially supported.

21  
22  
23  
24  
25 10 Per H3, it was expected that prolonged exposure to magazine portrayals of women in the  
26  
27 11 professional role would increase concerns about future career compared to exposure to portrayals  
28  
29 12 of women in the (H3a) beauty ideal and (H3b) mother/homemaker roles. Women who viewed  
30  
31 13 the professional portrayals did not report concerns about career three days after the last exposure  
32  
33 14 more often than the remaining sample. Hence, H3 was not supported. Interestingly, however,  
34  
35 15 participants in the mother/homemaker portrayals group mentioned concerns about career  
36  
37 16 significantly more often than the remaining sample. Specifically, among participants in the  
38  
39 17 mother/homemaker portrayals group, career concerns were mentioned by 71.0% ( $n = 70$ )  
40  
41 18 compared to 49.3% ( $n = 67$ ) in the professional portrayals group,  $\chi^2(1, N = 137) = 6.72, p = .010$ .  
42  
43 19 Career concerns were also more prevalent among women in the mother/homemaker portrayals  
44  
45 20 group when comparing them with the participants in the beauty ideal portrayals group, 71.0% ( $n$   
46  
47 21 = 70) versus 45.5% ( $n = 77$ ),  $\chi^2(1, N = 147) = 9.73, p = .002$  (see Table 2).  
48  
49  
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53  
54 22 Furthermore, H4 suggested that those in the mother/homemaker portrayals group would  
55  
56 23 mention more concerns about their future than women in the beauty ideal portrayals and  
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## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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1 professional portrayals groups. Thus, in contrast to H1-3, this hypothesis pertained to the *number*  
2 of concerns and not to the specific content of the concern. Hence, an analysis of variance with  
3 number of concerns related to one's personal future as dependent variable was conducted<sup>1</sup>.  
4 Experimental group as between-group factor yielded a significant effect of media exposure,  $F(2,$   
5  $214) = 3.70, p = .026, partial \eta^2 = .034$ . Specifically, women in the mother/homemaker  
6 portrayals group ( $M = 1.79, SD = 1.25$ ) mentioned more concerns overall about their personal  
7 future than women in the professional portrayals group ( $M = 1.24, SD = 1.23$ ) did ( $p = .034,$   
8 subsequent multiple tests with Sidak correction). The beauty ideal portrayals group ( $M = 1.35,$   
9  $SD = 1.27$ ) fell in-between. Thus, H4 was partially supported.

**Affective Valence of Possible Future Selves**

11 The next set of hypotheses suggested that prolonged exposure to magazine portrayals of  
12 women in the mother/homemaker role induces a more positive affective valence related to PFS  
13 than exposure to the gender-incongruent portrayals of women in the professional role (H5a), and  
14 that prolonged exposure to magazine portrayals of women in the beauty ideal role induces a  
15 more positive affective valence related to PFS than exposure to the gender-incongruent  
16 portrayals of women in the professional role (H6a). Further, these effects are thought to be  
17 stronger among women that adhere more to gender norms (see details below) by being married  
18 (H5b and H6b), having a lower BMI (H5c and H6c), and/or working less hours per week (H5d  
19 and H6d) such that women in the gender-congruent experimental conditions fulfilling these  
20 traditional roles will exhibit more positive affect than women who fulfill these traditional roles  
21 but who viewed professional portrayals.

22 These hypotheses were tested with an analysis of variance<sup>2</sup> that utilized the difference  
23 score between the number of mentions of positive and negative affect with regard to PFS as the

## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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1  
2  
3 1 dependent measure. Media exposure condition, marital status (non-married vs. married), and  
4  
5 2 work hours (up to 39 hours vs. 40 hours or more) served as between-group factors with BMI  
6  
7 3 serving as a covariate, resulting in a 3 x 2 x 2 design<sup>3</sup>. A preliminary analysis of variance had  
8  
9 4 also included BMI (low vs. medium vs. high; see details in the measures section above);  
10  
11 5 however, as this factor had no significantly reliable effect (see test below), and no support for  
12  
13 6 H5c and H6c emerged, it was dropped from the analysis reported below to avoid small cell sizes.  
14  
15 7 None of the other results changed in terms of significance as a result of dropping BMI as an  
16  
17 8 independent variable.

18  
19  
20  
21  
22 9 The analysis of variance yielded some main effects that were not of interest for  
23  
24 10 hypotheses testing: Married women generally experienced greater prevalence of positive affect  
25  
26 11 related to their possible future self than non-married women ( $M = .78$ ,  $SD = .2.23$ , vs.  $M = .56$ ,  
27  
28 12  $SD = 1.79$ ;  $F(1, 198) = 4.59$ ,  $p = .033$ ,  $\eta^2_{\text{partial}} = .023$ ), and women working up to 39 work hours  
29  
30 13 also experienced greater positive prevalence compared to women working 40 hours or more ( $M$   
31  
32 14  $= .85$ ,  $SD = 2.09$ , vs.  $M = .52$ ,  $SD = 1.82$ ;  $F(1, 198) = 5.75$ ,  $p = .017$ ,  $\eta^2_{\text{partial}} = .028$ ).

33  
34  
35  
36  
37 15 For hypotheses testing, the results show that the media exposure condition influenced the  
38  
39 16 prevalence of affective valence on PFS thoughts,  $F(2, 196) = 6.49$ ,  $p = .002$ ,  $\eta^2_{\text{partial}} = .062$ ,  
40  
41 17 because exposure to mother/homemaker portrayals produced a significantly stronger prevalence  
42  
43 18 of positive affect ( $M = .69$ ,  $SD = 2.13$ ) compared to exposure to portrayals of professional  
44  
45 19 women ( $M = .42$ ,  $SD = 1.84$ ) that was significant in a subsequent means comparison ( $p < .001$ )  
46  
47 20 (supporting H5a). The difference between the experimental groups with beauty portrayals and  
48  
49 21 professional portrayals fell short of significance with  $p = .12$  (no support for H6a). However, this  
50  
51 22 impact of media exposure condition was further moderated by interaction effects. Specifically,  
52  
53 23 relationship status and media exposure conditions yielded an interaction,  $F(2, 198) = 7.87$ ,  $p =$

## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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3 1 .001,  $\eta^2_{\text{partial}} = .074$ , which is illustrated in Figure 1. Married women in the mother/homemaker  
4  
5  
6 2 portrayals group felt significantly more positively about their future than those in the  
7  
8 3 professional portrayals group ( $p < .001$ ), which supports H5b, and those in the beauty portrayals  
9  
10 4 group ( $p = .012$ ). However, married women in the beauty portrayals group did not feel  
11  
12 5 significantly more positively about their future than those in professional portrayals group ( $p =$   
13  
14 6  $.218$ ), thus H6b was not supported. Married women who viewed the mother/homemaker  
15  
16 7 portrayals had a significantly more positive outlook than non-married women in the same media  
17  
18 8 exposure condition ( $p < .001$ ).

19  
20  
21  
22 9 As previously stated, BMI did not yield any substantial effects,  $F(1, 198) = 1.09$ ,  $p =$   
23  
24 10  $.297$ ,  $\eta^2_{\text{partial}} = .006$ . Thus no support for H5c and H6c emerged.

25  
26  
27 11 Moreover, an interaction between media exposure condition and work hours emerged,  
28  
29 12  $F(2, 198) = 3.6$ ,  $p = .029$ ,  $\eta^2_{\text{partial}} = .035$ , as illustrated in Figure 2. Findings indicate that women  
30  
31 13 who worked up to 39 hours and viewed mother/homemaker portrayals indicated a significantly  
32  
33 14 more positive outlook than women who worked up to 39 hours and viewed the career portrayals  
34  
35 15 ( $p = .004$ ). This finding supports H5d. However, H6d was not supported, as the difference in  
36  
37 16 affective valence in PFS between the beauty portrayals and the career portrayals group among  
38  
39 17 women who worked up to 39 hours did not approach significance (*n.s.*). Additionally, women  
40  
41 18 who worked up to 39 hours and viewed mother/homemaker portrayals indicated a significantly  
42  
43 19 more positive outlook than women who worked 40 hours or more and saw the same portrayals ( $p$   
44  
45 20  $= .004$ ).

### 21 Possible Future Self Link as Mediator

22  
23 22 H5e and H6e predicted that impacts on affect per H5a and H6a are mediated by the extent  
24  
25 23 to which women link the magazine portrayals to their own PFS. Mediation analyses (Preacher &



## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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1  
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3  
4 1 Hayes, 2008) were conducted. The first set of analyses tested H5e, with media exposure to  
5  
6 2 mother/homemaker portrayals versus exposure to professional portrayals as independent variable  
7  
8 3 (dummy-coded), the variable for PFS link as mediator, and difference score between the number  
9  
10 4 of mentions of positive and negative affect as dependent variable. The analysis controlled for  
11  
12 5 marital status, work hours, BMI, and magazine enjoyment. Figure 3 reports the results.

13  
14  
15 6 Exposure to the professional portrayals induced greater levels of the PFS link than  
16  
17 7 exposure to the mother/homemaker portrayals (coefficient = .67). The higher the extent of PFS  
18  
19 8 link, the greater the prevalence of negative affect related to thoughts about one's own future  
20  
21 9 occurred (coefficient = -.23). Although neither the total nor the direct effect of exposure on  
22  
23 10 negative affect was significant (*n.s.*), an indirect effect of exposure on affect related to thoughts  
24  
25 11 about future emerged via PFS link, with a point estimate at -.16, which was significant because  
26  
27 12 the confidence interval did not include zero. This finding supports H5e.

28  
29  
30  
31  
32 13 Further mediation analyses examined H6e, with media exposure to beauty portrayals  
33  
34 14 versus exposure to professional portrayals as independent variable (dummy-coded), the variable  
35  
36 15 for PFS link as mediator, and difference score between the number of mentions of positive and  
37  
38 16 negative affect as the dependent variable, using the same controls as before. This analysis  
39  
40 17 yielded an indirect effect of media exposure via the PFS link on the difference between positive  
41  
42 18 and negative affect related to one's future (see Figure 3). Exposure to professional portrayals  
43  
44 19 fostered greater levels of PFS link (coefficient = .55), which in turn led to greater prevalence of  
45  
46 20 negative affect related to thoughts about one's future (coefficient = -.28). Again, neither the total  
47  
48 21 nor the direct effect of exposure on negative affect was significant, but the indirect effect via PFS  
49  
50 22 link emerged as significant, with a point estimate of -.15. This finding lends support to H6e.

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55 23 When taking the two portrayals with traditional female roles of mother/homemaker and  
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## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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2  
3 1 beauty ideal together (see Figure 3), a significant indirect effect of the PFS link emerged, with a  
4  
5 2 point estimate of -.15 for the difference score between mentions of positive and negative affect  
6  
7 3 related to thoughts about one's future.  
8  
9

#### 4 **Discussion**

5 The present study demonstrated that prolonged exposure to portrayals of women in either  
6 gender-congruent (mother/homemaker or beauty ideals) roles or gender-incongruent  
7 (professional) roles impacted adult, childless women's visions of their possible future selves. The  
8 demonstrated effects are important given that women in the examined age range (21-35 years)  
9 are making crucial life decisions about whether and how they will balance multiple roles in the  
10 future. The present research design offers an important addition to the existing work about media  
11 effects on social role conceptions, which has primarily utilized short-term experiments and cross-  
12 sectional survey designs that do not allow inferences on long-term, causal effects.  
13

14 In answering an open-ended question three days after the last exposure session, the  
15 women revealed that the gender-typed roles remained salient: Prolonged exposure to women in  
16 mother/homemaker roles fostered more concerns about mothering and having a family in the  
17 future (H1 partially supported). Yet, it is important to note that the specific comparison with  
18 women who viewed professional portrayals did not produce a significant difference (H1b not  
19 supported), whereas the specific comparison with women who viewed beauty ideal portrayals  
20 yielded a significant difference (H1a supported). Similarly, prolonged exposure to beauty ideal  
21 portrayals fostered more concerns about personal appearance in the future, in comparison to the  
22 two other experimental groups (H2 partially supported), falling in line with previous body image  
23 research (see Grabe, et al., 2008). It should be noted, however, that the specific comparison with  
24 women who viewed professional portrayals did not yield a significant difference (H2b not  
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## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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1 supported), whereas the specific comparison with women who viewed mother/homemaker  
2 portrayals showed a significant difference (H2a supported).

3 Overall, findings in line with H1 and H2 demonstrate that social and gender role theory is  
4 a fruitful framework to study media impacts. It is evident from this study that gendered media  
5 portrayals reinforced norms and expectations of the self regarding women's PFS, empirically  
6 testing the concern voiced in previous literature (e.g., Eagly et al., 2009; Signorielli, 1993).

7 On the other hand, exposure to gender-incongruent portrayals of women in professional  
8 roles did not lead to more mentions of concerns about future job/career outlooks (H3 not  
9 supported). However, interestingly, those in the mother/homemaker portrayal group mentioned  
10 thoughts about their career/occupation in the future more than those in either the beauty ideal  
11 group or professional group. Further, prolonged exposure to the yet-to-be-obtained role of  
12 mother/homemaker fostered more concerns about possible future selves. In other words, women  
13 who had viewed the mother/homemaker portrayals mentioned more concerns overall about their  
14 personal future than women who saw professional portrayals (H4 partially supported). These  
15 results show that media portrayals of social roles do not simply render these roles more salient  
16 among recipients—how individuals connect the portrayals to their own possible future selves  
17 matters for how they respond to them. This finding was different for college age sample in which  
18 the young women were not yet graduated and working at the professional level (Authors, 2014).  
19 Given that the women in the study were mostly working, but not yet mothers, it is possible that  
20 in viewing the portrayals of women in mother/homemaker portrayals instigated thoughts about  
21 balancing multiple roles, as women were more likely than men to report seeing themselves  
22 family roles in the future (Brown & Diekman, 2010). Furthermore, it's possible that their current  
23 agentic, gender-incongruent role in the workplace became more salient as they evaluate life at

## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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1 this stage and envision what their future could look like (Cross & Markus, 1991).

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1 Exposure to mother/homemaker portrayals yielded greater prevalence of positive affect  
2 regarding PFS compared to exposure to portrayals of professional women (in line with H5a),  
3 while the difference between beauty portrayals and professional portrayals fell short of  
4 significance (no support for H6a). Supporting previous gender role research, women in the study  
5 felt good about themselves when they conformed to these gendered norms (Wood et al., 1997).  
6 In other words, women who have already fulfilled certain gender-typed roles (e.g., by being  
7 married) feel more positively about their future than those who have yet to (e.g., by being  
8 single). The media exposure impacts were moderated by life circumstances in line with  
9 predictions derived from the gender conformity framework (Good & Sanchez, 2010; Wood et al.,  
10 1997): Specifically, married women who viewed the mother/homemaker portrayals had a more  
11 positive outlook on their futures than married women who saw professional portrayals (H5b  
12 supported). However, married women in the beauty portrayals condition did not have a more  
13 positive outlook on their futures than married women who saw professional portrayals (no  
14 support for H6b). Further, adherence to the thin ideal (interpreted here as having a lower BMI)  
15 did not moderate media impacts (no support for H5c and H6c). H5d was supported, as women  
16 who worked up to 39 hours derived a more positive future outlook from viewing  
17 mother/homemaker portrayals than from viewing professional portrayals. No significant  
18 difference in valence of outlook emerged for work status subgroups when comparing the beauty  
19 ideals group and the professional portrayals group (H6d not supported). Taken together, gender  
20 conformity has some important impacts on affective responses to gender role portrayals in the  
21 media. Mediation analyses examined impact processes and revealed that the extent to which  
22 women linked the magazine portrayals to their PFS was the pathway for these effects (H5e and

## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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3 1 H6e supported).

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5 2 Drawing on the notion that gendered roles strongly influence occupation and life path  
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7 3 choices (Eccles, 1994; Su, Round, & Armstrong, 2009), the present work demonstrates the  
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9 4 impact that media portrayals of women in gendered roles may have on a woman's vision of her  
10  
11 5 future. Most prior work on gender-typed portrayals examined only short-term effects (Scharrer,  
12  
13 6 2013). In contrast, this experiment shows that exposure to images of women in magazine pages  
14  
15 7 has significant impacts on how adult women think and feel about their PFS three days after  
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17 8 media exposure. With all of the societal pressures to conform to traditional gender roles (Eagly  
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19 9 & Wood, 1999), when viewing portrayals of gender-congruent roles in the media, women feel  
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21 10 good about their own adherence to them (Wood et al., 1997) and glean happiness from the  
22  
23 11 prospect of continuing to fulfill them in the future, thus reinforcing motherhood and beauty  
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25 12 ideals symbolized millennia ago with the Greek goddess Aphrodite. Adult women between the  
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27 13 ages of 21 and 35 are in the process of making decisions regarding whether or not to pursue  
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29 14 motherhood and/or a career. Hence, they are susceptible to the potentially motivating, positive  
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31 15 effects of viewing women portraying traditional gender norms in magazine pages, especially if  
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33 16 they are already married or work less hours.

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35 17 Further, viewing magazine portrayals of women in the mother/homemaker role fostered  
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37 18 concerns about future career roles. It is possible that the hope of having a family leads to  
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39 19 perceptions of work-family conflict—the experience of imbalance between work and home  
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41 20 arising from the stress-inducing pushes and pulls a career can have on family life and vice versa,  
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43 21 which has serious implications for career decision-making and family planning (Westring &  
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45 22 Ryan, 2011). For example, women may not pursue a career if they believe it will interfere with  
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47 23 having children. Certainly, decisions about pursuing a career or motherhood are multi-faceted—  
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## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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3 1 determining how women come to conclusions about what life path to take is beyond the scope of  
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5 2 this investigation. Further research should attempt to more explicitly capture media effects on  
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8 3 decisions about whether or not to pursue motherhood and/or a professional career.  
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10 4 The present research has limitations – this study involved only White adult women.  
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12 5 Different results could emerge for other races/ethnicities (e.g., Black, Latino, or Asian) as there  
13  
14 6 are historically significantly fewer representations of non-White women in mainstream media  
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17 7 content (see Scharrer, 2013). Further, a majority of the women who participated in the study had  
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19 8 obtained at least a bachelor's degree. It is likely that their achieved level of education indicates  
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21 9 their value of having a career and would make the notion of pursuing a career more salient  
22  
23 10 overall. Moreover, White women and women with complete college education have less  
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25 11 children, remain voluntarily childless more frequently, and also expect to have less children  
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28 12 (Martinez, Daniels, & Chandra, 2012). Additionally, the portion of married women in the sample  
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30 13 was relatively small, which hindered further examination of moderating influences. Future  
31  
32 14 research with larger and more diverse samples is needed to examine effects on different socio-  
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34 15 demographic groups. It will also be helpful to explore additional measures in order to capture  
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36 16 how media exposure affects life path visions, as the present work relied on a single open-ended  
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38 17 question. So far, this measurement approach has yielded more valuable insights than  
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40 18 standardized questions (e.g., on career interests; see Gong, 2011). Additionally, it is desirable to  
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42 19 examine media effects for even longer periods than in the present prolonged exposure  
43  
44 20 experiment with just five exposure sessions because, in real life, such effects accumulate across  
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46 21 weeks, months, and years. Finally, as a result of experimental condition assignment, participants  
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48 22 were not able to select the magazine content to which they were exposed. Future research should  
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50 23 aim to determine which types of magazines women are more inherently drawn to, if any.  
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## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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4 1 Altogether, these findings provide ample evidence for media exposure impact that is  
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6 2 evident even three days after exposure. Contrary to much media exposure research which looks  
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8 3 only at immediate viewer reactions, this work provides support for the notion that media effects  
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10 4 are, in fact, sustained over multiple days. Thus, more research using similar methodologies is  
11  
12 5 warranted. An important extension of the present work could involve letting individuals choose  
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14 6 what to view, as with the present design participants could only look at media portrayals in line  
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16 7 with their randomly assigned condition. Future work should investigate how selective exposure  
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18 8 to media messages might accelerate media impacts on how individuals envision their future.  
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GENDER-CONGRUENT MEDIA & POSSIBLE FUTURE SELVES

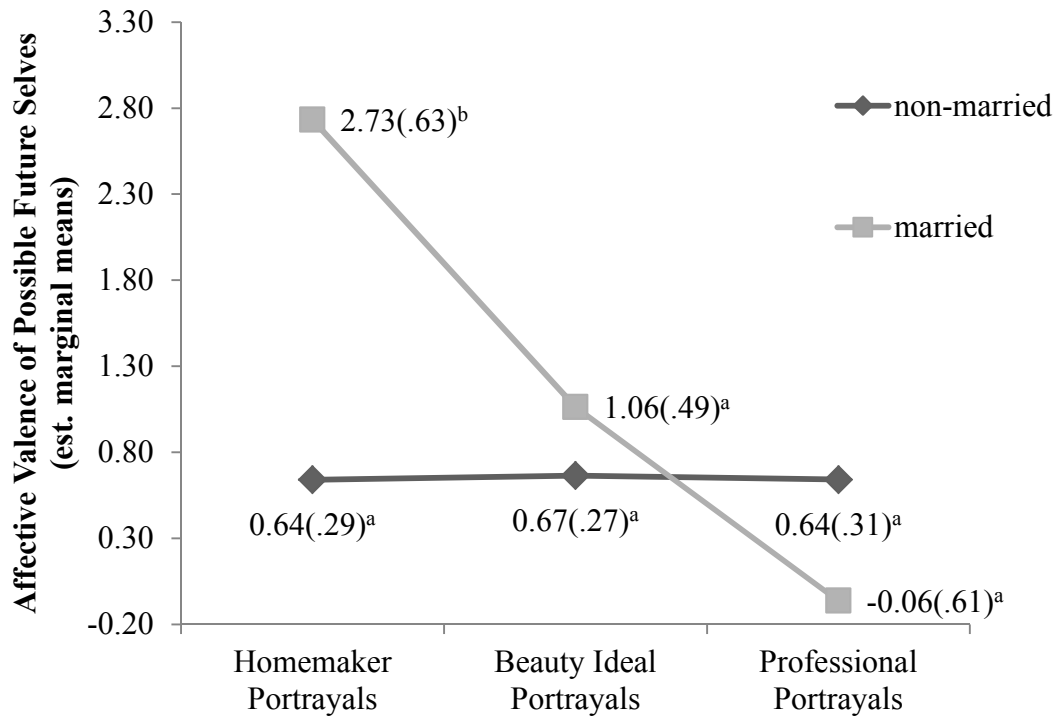


Figure 1. Affective Valence of Possible Future Selves as Function of Media Exposure and Marital Status

Note. Numbers indicated estimated marginal means and standard errors in brackets. Means that do not share a subscript differ at  $p < .05$ .

GENDER-CONGRUENT MEDIA & POSSIBLE FUTURE SELVES

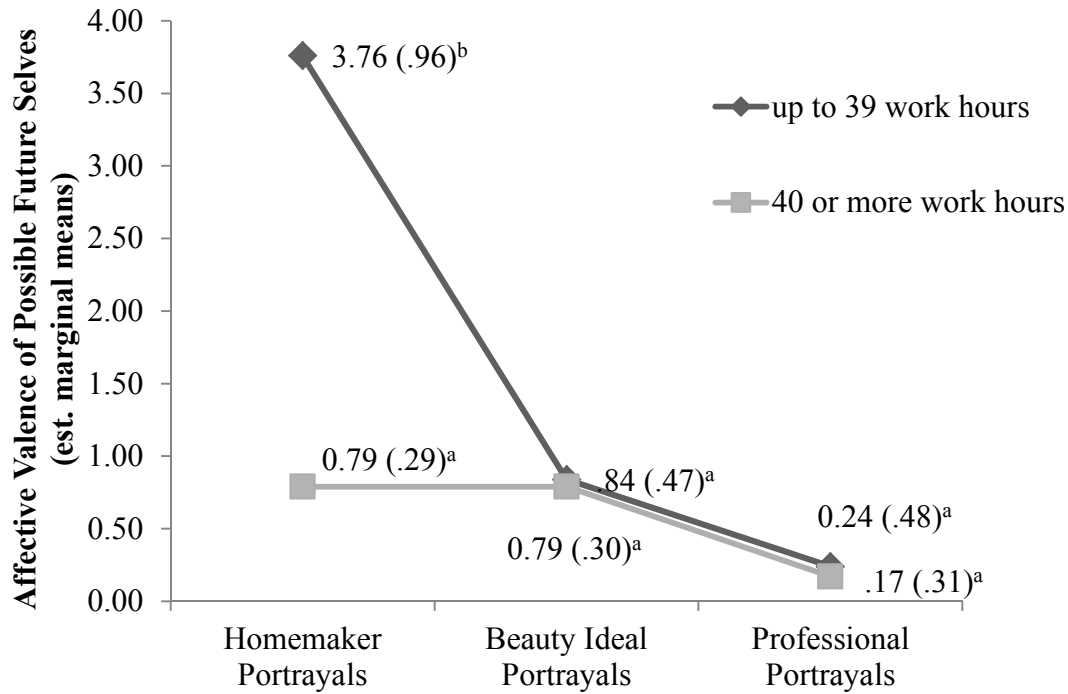


Figure 2. Affective Valence of Possible Future Selves as Function of Media Exposure and Work Hours

Note. Numbers indicated estimated marginal means and standard errors in brackets. Means that do not share a subscript differ at  $p < .05$ .

GENDER-CONGRUENT MEDIA & POSSIBLE FUTURE SELVES

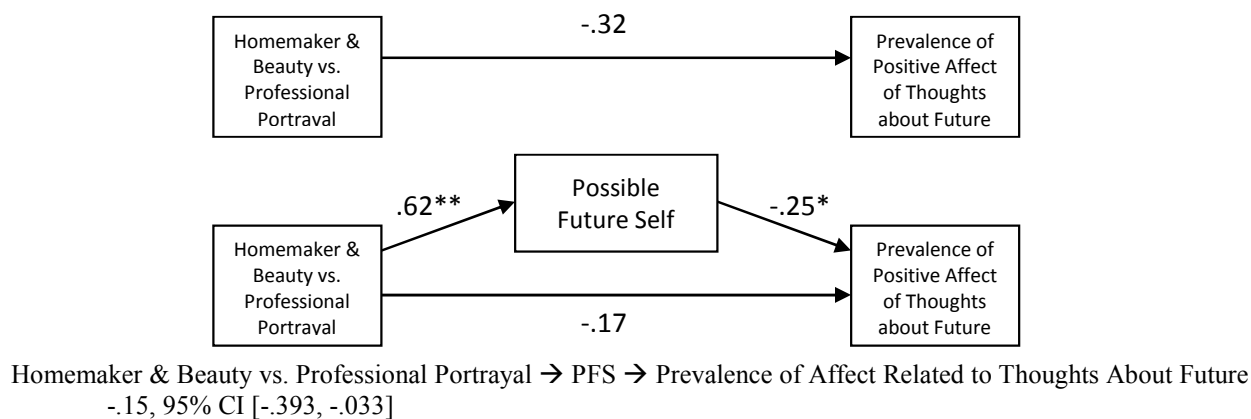
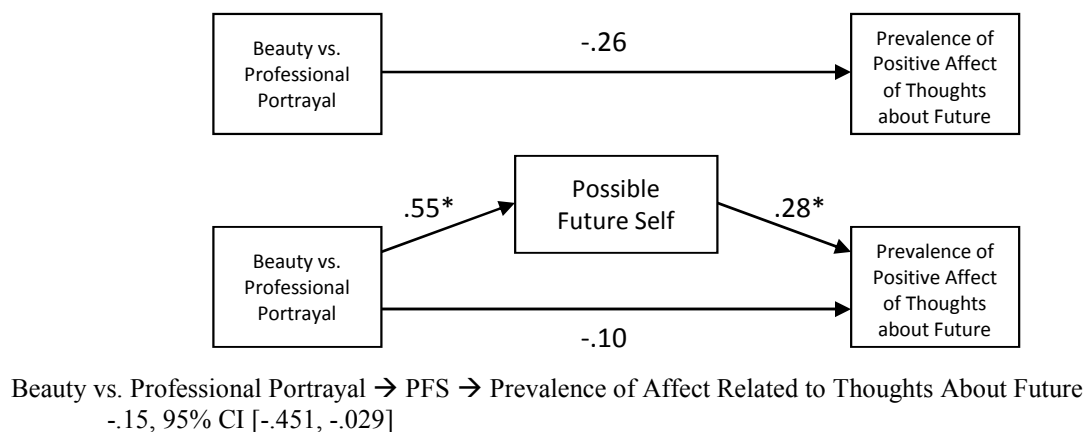
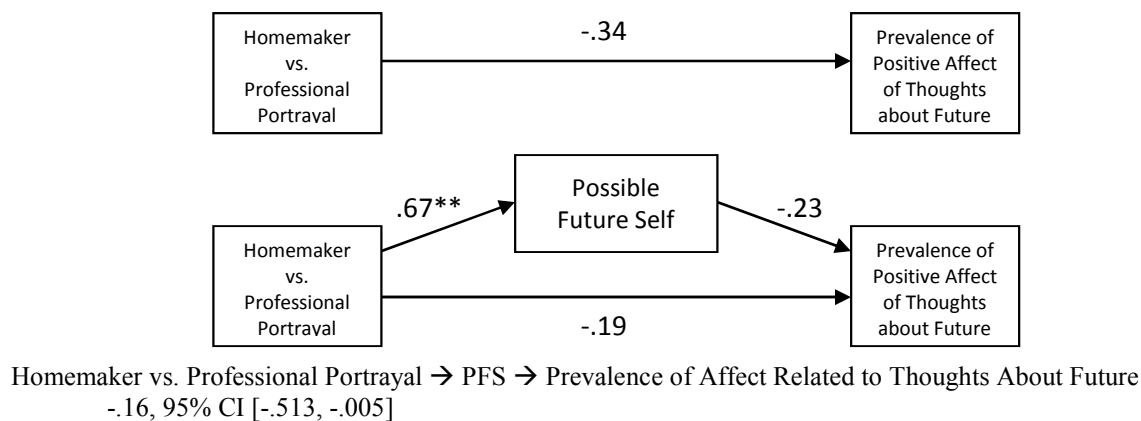


Figure 3. Mediation Paths Regarding Media Exposure Impact (IV) on Prevalence of Positive Affect Related to Thoughts About Future (DV) Through Possible Future Self (M)  
 Note. Unstandardized coefficients reported. Two astericks indicate  $p < .001$ . One asterick indicates  $p < .05$ . Control variables: marital status, work hours, BMI, magazine enjoyment.



## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

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Table 1. Number of Concerns Mentioned and Affective Difference Scores by Reverse-Ordered Experimental Condition

Experimental Group	No. of Concerns Mentioned	Aff. Difference Score
Beauty Ideals Order 1	1.595	0.833
Beauty Ideals Order 2	1.487	0.636
Professional Order 1	1.122	0.486
Professional Order 2	0.925	0.344
Mother/Homemaker Order 1	1.302	0.927
Mother/Homemaker Order 2	1.200	0.444

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## GENDER-CONGRUENT MEDIA &amp; POSSIBLE FUTURE SELVES

1 *Table 2. Concerns Expressed by Respondents by Media Portrayal Group*

	Mother/ Homemaker Portrayal Group (%)	Beauty Ideal Portrayal Group (%)	Professional Portrayal Group (%)
Future Children/Family Concerns	29.0 <sup>b</sup>	11.7 <sup>a</sup>	20.9 <sup>ab</sup>
Future Appearance Concerns	4.3 <sup>a</sup>	15.6 <sup>b</sup>	6.0 <sup>ab</sup>
Future Career Concerns	70.1 <sup>b</sup>	45.5 <sup>a</sup>	49.3 <sup>a</sup>
N	70	77	67

2 *Note.* Percentages in the same row that do not share a subscript differ significantly per chi square  
3 test,  $p < .05$ ; the percentages listed in the table represent the percentage of participants within  
4 each experimental group (N) that mentioned the type of concern in their open-ended responses  
5 (e.g., the first cell of the table reflects the 29% of the 70 participants in the mother/homemaker  
6 portrayal group who mentioned future children/family concerns).

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- <sup>1</sup> The dependent variable of count of concerns and its residuals were normally distributed based on the recommendation (e.g., Garson, 2012) that skewness and kurtosis should both be  $\leq |2|$  for a normal distribution. Skewness and kurtosis were at .53 and -.59, respectively, for concerns, and .55 and -.55 for residuals. Homogeneity of variance across groups was established with a Levene's test ( $p = .879$ ). Deviation from linearity was not significant ( $p = .351$ ). Given that H4 pertained to count data, which are often not normally distributed and instead show a Poisson distribution (e.g., Cameron & Trivedi, 1998), a Poisson regression was also applied. Number of concerns related to one's personal future served as dependent variable and experimental group as predictor. As in the analysis of variance reported above, experimental group yielded a significant effect of media exposure, Wald Chi-Square = 8.01,  $p = .017$ . The comparison between women in the mother/homemaker portrayals group and women in the professional portrayals group again yielded a significant difference, Wald Chi-Square = 4.61,  $p = .032$ , but again the beauty ideal portrayals group did not differ from the other experimental groups (*n.s.*).
- <sup>2</sup> The dependent variable of count of concerns and its residuals were normally distributed based on the recommendation (e.g., Garson, 2012) that skewness and kurtosis should both be  $\leq |2|$  for a normal distribution. Skewness and kurtosis were at .75 and 2.0, respectively, for concerns, and .63 and 2.0 for residuals. Homogeneity of variance across groups was established with a Levene's test ( $p = .273$ ). Deviation from linearity was tested with experimental group and was not significant ( $p = .654$ ).
- <sup>3</sup> Average magazine enjoyment was controlled for as a covariate but had no significant effect ( $p = .083$ ). Due to some small cell sizes, a three-way interaction between media exposure condition, marital status, and work hours was not interpreted. As a result, the cell size range across the 12 cells of the experimental design was between 15 and 58.

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3 **Revision Memorandum for HCR-14-030**

4 **"The Allure of Aphrodite: How Gender-Congruent Media Portrayals Impact Adult Women's**  
5 **Possible Future Selves"**  
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7 \*In addition to the revised manuscript, a manuscript version that shows the changes is provided as  
8 'supplementary file.'  
9

10 **Revisions in Response to Reviewer**  
11

12 *I appreciate the careful attention that the authors have given to the feedback. This is a very interesting*  
13 *and clever study, and I look forward to seeing it published. However, but some issues related to clarity*  
14 *and consistency must be addressed before the paper will be ready for publication.*  
15

16  
17 *1) There is still lack of clarity in several places regarding use of the variable BMI. When this variable*  
18 *was an independent variable (IV), three groups (low, medium, high) were used. This is fine for use in an*  
19 *ANOVA with BMI as a categorical IV (although this does not capture order). But the paper states: "This*  
20 *three-step variable was created to control for BMI in analyses, with 22.0 and 26.0 as 17 cut-offs." It is*  
21 *not appropriate to artificially remove variance when a continuous variable will work well. When BMI is*  
22 *included as a control variable, the continuous scale should be used (H5e and H6e – and as noted below, I*  
23 *believe also H5c and H6c). This needs to be revised.*  
24

25 **Revision:** The analyses have now been re-run with BMI as a continuous variable when it was  
26 used as a control, and results and discussion have been updated accordingly. The only thing that  
27 changed in the results is that there is no longer support for H6b, but this was a minor hypothesis  
28 in the overall study design.  
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31 *2) A specific example where there is lack of clarity regarding BMI in the results: On p. 21, the authors*  
32 *describe several hypotheses, including H5c and H6c (which predict an effect of BMI) and then say that*  
33 *"these hypotheses were tested with an analysis of variance" that did not include BMI as a factor ["Media*  
34 *exposure condition, marital status (non-married vs. married), and 4 work hours (up to 39 hours vs. 40*  
35 *hours or more) served as between-group factors, resulting in a 3 x 2 x 2 design." ] This does not make*  
36 *sense given the hypotheses presumably being tested, and thus requires rewording. Later in the paragraph*  
37 *the authors do refer to a "preliminary analysis" that involved BMI – but nonetheless, an ANOVA without*  
38 *BMI as a factor cannot test H5c or H6c. Further, since these ARE hypotheses that the researchers*  
39 *proposed to test (and for which the report results), it seems inappropriate to just remove that IV from the*  
40 *analysis. It \*looks\* to the reader as though this might have been done to hide inconsistent findings when*  
41 *BMI was included. I'm sure this is not the case, but at minimum, if BMI is dropped as a factor, then the*  
42 *authors should note that none of the other findings changed when BMI was dropped. Or the BMI scale*  
43 *(not the three categories) could be added as a covariate to the subsequent 3 x 2 x 2 ANOVA, to rule that*  
44 *possibility out. This will not affect cell sizes, and if BMI really makes no difference, at least the possibility*  
45 *that it does will be eliminated.*  
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48 **Revision:** See revision above; analyses have been re-run with BMI as a continuous, control  
49 variable. Additionally, the following sentence was added for clarity:  
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51 "None of the other results changed in terms of their significance as a result of dropping  
52 BMI as an independent variable."  
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3) *I suggest that the authors carefully review the manuscript for all the places where they used BMI, and make certain all statements are accurate and clearly indicate what was being done/what was found. Also, make sure that when BMI was used as a covariate, it was the scale, not the three-category variable.*

**Revision:** Discussion of BMI throughout the manuscript have been carefully revisited and edited for clarity.

4) *The paper now states that “cell sizes for interpreted interactions ranged between 15 and 58.” This is somewhat misleading (because involves collapsing across multiple cells. I suggest just reporting the range across the 12 cells of the design. With 12 cells and N = 214, the mean cell size is 17.8 – but I would like to see that range of ns for the 12 cells. The reader can then figure out that for various main effects, etc., cells would be collapsed.*

**Revision:** Footnote 3 contains the cell size range, and has been edited for clarity to read, "The cell size range across the 12 cells of the experimental design was between 15 and 58." (\*We are happy to report any other additional information regarding the cell sizes used per your request. However, we would need further clarification of what you are specifically looking for.)

5) *On p. 21, the paper still uses the phrase “particularly strong” (“these effects are thought to be particularly strong among...”). As noted previously, this is very vague and most importantly cannot be tested. This phrase should be a comparative predicting that an effect will be stronger among a certain group or groups than other(s).*

**Revision:** The wording has been edited to highlight the predicted comparatives such that the phrase "particularly strong" has been changed to "stronger among..."

6) *Regarding the lack of clarity in reporting of comparisons in the table and Figures: The problem still has not been fixed. It is not interpretable to assign letters left to right or using inconsistent criteria. Conventionally, subscript letters are assigned from low to high numbers; assigning high to low is unconventional but could be OK if used consistently. But the same method must be used throughout to facilitate interpretation! So, for example, in what is now Table 2, percentages in the first row are: 29.0a 11.7b 20.9ab. On the next line, we see: 4.3a 15.6b 6.0ab. This does not make sense – the letters a, ab, b are assigned high to low in the first row and low to high in the second row. Assigning low to high, the subscripts in the three rows should be:*

29.0b	11.7a	20.9ab
4.3a	15.6b	6.0ab (no change needed, assigned low to high)
70.1b	45.5a	49.3a

**Revision:** All tables and figures have carefully been reviewed and edited for consistency. Subscript letters have been assigned from low to high consistently across all tables and figures.

7) *In addition, when referring to subscripts in the note, be sure to clarify exactly what the letters indicate. For example, I believe in what is now Table 2, the note should read: “Percentages in the same row that do not share a subscript differ significantly per chi square test.”*

**Revision:** The note has been edited per the suggestion.

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4 8) *What is meant by N%? Please clarify?*  
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6 **Revision:** The following sentence has been added to the note for clarification:  
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8 " The percentages listed in the table represent the percentage of participants within each  
9 experimental group (N) that mentioned the type of concern in their open-ended responses  
10 (e.g., the first cell of the table reflects the 29% of the 70 participants in the  
11 mother/homemaker portrayal group who mentioned future children/family concerns)."  
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14 9) *In Figures 1 and 2, the asterisks also need to be deleted and the subscript letters need to be redone*  
15 *(they currently do not make sense, as explained above).*  
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18 **Revision:** Figures 1 and 2 have been edited such that asterisks have been removed, subscripts  
19 have only been used, and if they share a subscript they are not significantly different from one  
20 another (as is now explained in the note).  
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23 10) *Minor point: On p. 29, the text now says that participants were "forced" to view the portrayals. I*  
24 *think a different word would be better (presumably participation was voluntary).*  
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26 **Revision:** The wording has been adjusted to highlight assignment without suggesting  
27 participation was not voluntary.  
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