Biological sex and gender role identity as predictors of spousal support provision: a scenario-based study

Lesley L. Verhofstadt* & Fanny Weytens

a Department of Experimental-Clinical and Health Psychology, Ghent University, Ghent, Belgium; b Psychological Sciences Research Institute, Catholic University of Louvain-la-Neuve, Louvain-la-Neuve, Belgium

Word count: 5439

* Corresponding author

Correspondence should be addressed to:

Lesley L. Verhofstadt, Ph.D., Department of Experimental-Clinical and Health Psychology, Ghent University, H. Dunantlaan 2, 9000 Ghent, Belgium,

E-mail: lesley.verhofstadt@ugent.be

Biographical data

Lesley Verhofstadt is assistant professor of Family Psychology at Ghent University, Belgium. She has spent the last ten years researching support in couples.

Fanny Weytens is a PhD student at the Catholic University of Louvain-la-Neuve, Belgium. She is studying the determinants of support provision in marriage.

Note: This is an uncorrected version of an author’s manuscript accepted for publication. Copyediting, typesetting, and review of the resulting proofs will be undertaken on this manuscript before final publication. During production and pre-press, errors may be discovered that could affect the content.
Biological sex and gender role identity as predictors of spousal support provision: a scenario-based study

Abstract

The aim of this study was to examine biological sex (male versus female) and gender identity (masculine versus feminine) as predictors of support provision in marriage. Participants were 235 married individuals who completed scenario-based questionnaires designed to measure support provision across a broad range of daily stressors. Our results did not reveal differences between biological males and females in their support provision behaviour. However, a person’s support provision was uniquely predicted by his/her gender identity. As compared to feminine individuals, masculine individuals reported providing higher levels of instrumental and unhelpful support for their spouse in distress. Furthermore, feminine individuals reported higher levels of emotional support provision than masculine individuals. This pattern of results appeared to be consistent across stressor type. The present findings contribute to the discussion concerning the origins of the support gap in marriage by revealing that it is not biological sex per se, but people’s gender-role socialization that determines their skilfulness as a support provider in intimate relationships.

Keywords: marital support gap hypothesis; social support; sex differences; gender differences; couples; scenario-based study

Introduction

For more than 20 years now, the view that women receive less support from their spouses than men and that the support they receive is less helpful than what they provide to their spouses has been promulgated in both scholarly and popular literature (Belle 1982). The empirical support for this so-called marital support gap hypothesis (MSGH) appears to be relatively consistent for global self-reports of support provision (see Neff and Karney 2005). For example, in earlier studies on the marital support gap, Vinokur and Vinokur-Kaplan (1990) found that wives gave more support than they received from their husbands. Similarly, wives appeared to be more likely than husbands to provide support for their partner following
stressful events (Bolger et al. 1989b). In a more recent study, Verhofstadt et al. (2007) found that wives were rated (by both spouses) as providing more emotional support (such as reassurance or comfort) and more instrumental support (such as advice or assistance) than they received from their husbands. In addition, wives were rated as responding in a less negative/unhelpful way (such as minimizing the problem or ignoring the support seeker’s view) when their spouse requested help than their husbands did when the situation was reversed.

Although the pattern of results from previous studies on the support gap hypothesis in marriage appears to be consistent with the view that wives are more effective in their ability to provide support for their partners, there are several important restrictions in these findings (see Verhofstadt et al. 2007b for a detailed discussion). First, with a few exceptions (Xu and Burleson 2001, Neff and Karney 2005), most studies on sex differences in social support have used samples of non-intimates (such as strangers or friends) or measures of support without reference to specific relationships (Michaud and Warner 1997, Basow and Rubenfeld 2003). However, given the unique qualities of marital relationships, we cannot simply generalize the findings obtained outside of intimate relationship contexts to married couples (Pasch et al. 2007b). Therefore, the present study was designed to supplement existing data concerning sex differences in support within non-intimate pairs with data concerning the support that is provided between spouses.

A second limitation of previous research on the MSGH is that biological sex (male versus female) was the only factor included in the analysis of individual differences in husbands’ and wives’ support provision and the influence of spouses’ gender-role orientation on their support provision was overlooked. This is somewhat surprising because gender-role orientation, defined as individuals’ levels of psychological ‘femininity’ and ‘masculinity’,
Running head: Sex, Gender, and Spousal Support

may be an important determinant of support provision in couples. Psychological femininity is
a cluster of traits characterized by warmth, compassion, sensitivity to the feelings of others,
and emotional expressiveness (Bem 1974, 1981a&b). Psychological masculinity is a cluster
of traits characterized by self-reliance, independence, competitiveness and greater
assertiveness. Both men and women show large individual differences in stereotypically
feminine and masculine characteristics (Bem 1981 a&b). In the current study we therefore
assume that the extent to which a spouse possesses stereotypical ‘masculine’ qualities (such
as independence, forcefulness, dominance) or stereotypical ‘feminine’ qualities (such as
affection, sympathy, gentleness) might affect the amount of sex-typed support behaviour s/he
exhibits when confronted with a partner in distress. Consistent with this assertion, Verhofstadt
and Devoldre (2012) found, in a recently conducted observational study, that wives displayed
more effective support provision than their husbands, but this was only so within traditionally
stereotyped couples, that is, couples composed of a wife with high levels of stereotypically
feminine characteristics and a husband with high levels of stereotypically masculine
characteristics. In another relevant study, Reevy and Maslach (2001) reported that so-called
feminine qualities better prepared both sexes for seeking and receiving support from others in
general. To further clarify this issue, the second aim of the current study was to examine the
influence of gender (femininity versus masculinity) on spousal support directly and
independently of biological sex.

Finally, most of the research in the area of the support gap has relied only on spouses’
global self-reports of support receipt or availability (cf. Zwicker and DeLongis 2010). This is
a problem to the extent that cognitive and motivational biases interfere with the reports of
respondents attempting to recall, interpret and synthesize the details of past support
interactions into generalized impressions about support in their relationship (Hinde 1997,
Running head: Sex, Gender, and Spousal Support

Schwarz et al. (1998). In addition, the recall of support behaviour appears to be biased by sex role stereotypes that make the perceived sex differences greater than the behavioural differences actually are (Aries 1996, Verhofstadt et al. 2007b). There is, therefore, an inconsistency between findings on the marital support gap derived from self-reports versus those studies involving observational methods. Whereas global self-reports of support revealed sex differences consistent with the MSGH, the few observational studies testing the MSGH failed to detect differences between husbands and wives in the amount of emotional, instrumental and unhelpful support provided for a distressed spouse (Pasch et al. 1997a, Neff and Karney 2005, Verhofstadt et al. 2007b, Lawrence et al. 2008).

Another disadvantage of the use of global retrospective reports for examining the MSGH is that these measures do not allow the variability in husbands’ and wives’ support responses to be captured as a function of the type of stressor the partner is confronted with (such as transportation problems, overload at work, interpersonal conflict or tensions). The importance of differentiating specific kinds of stress is nevertheless strongly advocated in the literature on stress, coping and support (Bolger et al. 1989a, Cutrona and Russell 1990, Cohen et al. 2000). In fact, research shows that different stressors (such as work-related versus interpersonal) elicit different ways of coping (problem-focused versus emotion-focused) (see Zwicker and DeLongis 2010). In the present study, we therefore aimed to disaggregate people’s global reports of support provision into reports of specific types of support provision (including emotional, instrumental and unhelpful types of support) offered to a partner facing a wide range of daily stressful events (such as overload at work, family demands, arguments with friends, tension with children, transportation problems; see Bolger et al. 1989a).

In summary, the aim of the current study was to obtain a more detailed picture of the MSG than existing research has so far revealed by (1) using a large sample of married
individuals, (2) examining biological sex (male vs. female) and gender (masculine vs. feminine) independently as predictors of spousal support provision, and (3) using scenario-based measures of support provision (including emotional, instrumental, and unhelpful types of support) across three broad categories of daily stressors (overload, interpersonal tensions, other). As the present study is novel in several respects and as previous studies did not provide a basis for making empirically based predictions about the impact of sex and gender on support provision to a spouse facing a diversity of stressors, we left it up to the data to inform us about the relations that are found when these more detailed analyses are conducted.

**Method**

**Participants**

The sample consisted of 310 female and 238 male married individuals whose participation was solicited by using a snowball sampling method (see Verhofstadt et al. 2007a for more details). To participate, the participants had to have been involved in their heterosexual relationship for at least one year, and to have been married for at least six months. None of the participants were married to each other, thus the participants’ scores are independent. In the current study, we included only married heterosexual couples to allow a comparison of our results with previous research on the MSGH, that was restricted to these samples as well. As the data for the current study were collected using online questionnaires, eligible individuals who expressed interest in participating in the study were given all the necessary information to log in to our lab’s online data collection system. People who did not have access to the internet could fill out a paper copy of the measures used in the current study.

**Measures**

*Gender Identity*
Participants first completed the Bem Sex Role Inventory, (BSRI; Bem 1974), which is composed of 60 personality characteristics: 20 masculine (such as competitive, forceful), 20 feminine (such as understanding, warm), and 20 neutral (such as happy, sincere). Each participant was asked to indicate on a 7-point Likert scale (1 = never or almost never true, 7 = always or almost always true) to what extent each characteristic described him/her. The standard double median-split procedure (Bem 1975, Spence et al. 1975) was used to determine each spouse’s gender identity. First, a mean masculinity (α = .87) and femininity score (α = .80) was computed for each individual (mean for 20 masculine and 20 feminine items, respectively). Then, a median split was computed for the masculinity and femininity scores independently. Participants were classified as masculine if their masculinity score was above the median (= 4.55) and their femininity score was below the median (= 5.00). Participants were classified as feminine if their femininity score was above the median and their masculinity score was below the median. Finally, participants were classified as androgynous if both scores were above the median, and as undifferentiated if both scores were below the median.

Support Responses

Then, participants were asked to carefully read a series of 18 short scenarios. Each scenario depicted a situation in which the participant’s partner disclosed a particular stressful event s/he had been confronted with during the day (daily stressor) to the participant. Each scenario described one of 18 daily stressors that had been previously identified in diary-based stress research (Bolger et al. 1989a, Devoldre et al. under revision). These 18 daily stressors reflected three broad stressor categories (see Bolger et al. 1989a): (1) demands (such as overload at home, overload at work, family demands, demands from relatives), (2) interpersonal conflicts or tensions (such as arguments with supervisors at work, tensions with
Running head: Sex, Gender, and Spousal Support

parents-in-law, arguments with children), (3) other (such as transportation problems, financial problems). For each of the 18 scenarios, participants were asked to place themselves in the situation and imagine how they would respond to their partner disclosing this particular stressor to them.

Participants could then indicate how they would respond to their partner’s disclosure of distress by selecting one of 10 potential responses, reflecting three common types of support (1) emotional support (such as you don’t let your partner harp on thoughts that upset him/her and you tell your partner that s/he can handle the situation, and needs to have confidence in him/herself, you encourage your partner to express his/her needs and distress and you tell your partner that you are there for him/her), (2) instrumental support (such as you provide your partner with information on how to handle the problem and you tell him/her that you are willing to offer assistance), (3) unhelpful support (such as you tell your partner that s/he is exaggerating the situation, you show your feelings of irritation, disinterest, you are inattentive and don’t really listen to what your partner is telling you). The set of response alternatives was based on the description of emotional, instrumental and unhelpful support behaviours in the Social Support Interaction Coding System, a widely-used support behaviour coding system (Bradbury and Pasch 1994, Pasch et al. 2004).

For the purposes of analysis, the participant’s support responses were first aggregated across the 18 scenarios/stressors into the three stressor categories mentioned above (demands, arguments, other). The support responses were then reduced to the three summary support categories mentioned above (emotional, instrumental, unhelpful). This resulted in nine summary indices: (1) amount of emotional support provided when partner is dealing with demands, (2) amount of emotional support provided when partner is dealing with arguments, (3) amount of emotional support provided when partner is dealing with other...
stressors, (4) amount of instrumental support provided when partner is dealing with demands, (5) amount of instrumental support provided when partner is dealing with arguments, (6) amount of instrumental support provided when partner is dealing with other stressors, (7) amount of unhelpful support provided when partner is dealing with demands, (8) amount of unhelpful support provided when partner is dealing with arguments, (9) amount of unhelpful support provided when partner is dealing with other stressors. These percentage-of-behaviour indexes were used as the dependent measure in the analyses reported below and reflect how often a particular support response was selected for each of the three stressor categories (see Table 1).

Results
An initial pool of 548 participants completed the measures but only participants classified as ‘masculine’ or ‘feminine’ (as determined by the BSRI) were retained in the final pool of participants (N = 235). In other words, as we explicitly focused on the role of psychological femininity and masculinity in the prediction of support behaviour, we excluded the so-called ‘androgynous’ and ‘undifferentiated’ participants out of the analyses. This implies that in the current study, the term ‘gender identity’ only refers to the masculine and feminine groups included in our analyses. Within this final pool, participants’ mean age was 40.97 (SD = 14.13, range = 20-76) and the average length of their relationships was 17.47 years (SD = 12.90, range = 1-53). All participants were white and Belgian. Forty per cent of the participants reported having children. As preliminary analyses did not reveal differences between participants with children and childless participants on the variables under study, data from both groups were pooled together in subsequent analyses. The classification by biological sex and gender category resulted in four subgroups: masculine males (n = 87), feminine males (n = 12), masculine females (n = 34), and feminine females (n = 102).
To examine whether participants’ supportive responses would differ as a function of sex, gender, stress category, or an interaction of these factors we conducted a series of so-called repeated measures analyses of variance. This statistical technique allowed us to simultaneously compare the mean support scores of (1) male vs. female participants (independent from their gender identity role), (2) masculine versus feminine participants (independent from their biological sex) across three repeated conditions (i.e., across three stressor types). Separate analyses were conducted for each of the support responses included in the present study (emotional, instrumental, unhelpful). A ‘main effect’ of sex would signify that males and females differ significantly in their mean support scores across stressors (independent of their gender identity role). A ‘main effect’ of gender identity would signify that masculine and feminine participants differ significantly in their mean support scores across stressors (independent of their biological sex). An ‘interaction effect’ between biological sex and gender identity could, for example, signify that males and females’ mean support scores differ significantly but, only for masculine males and feminine females.

**Effect of biological sex on support provision in marriage**

The results of these analyses revealed no significant main effect for sex on self-reported instrumental support provision behaviour¹, emotional support provision behaviour², nor unhelpful types of support³. These results were consistent across the two gender identity groups and the three stressor types.

**Effect of gender role identity on support provision in marriage**

The analyses revealed a significant main effect for gender role identity on instrumental support provision⁴ and emotional support provision⁵, with masculine individuals – independent of their biological sex - reporting higher levels of instrumental support provision
and lower levels emotional support provision to their partner than feminine individuals. This result was found for all three stressor categories (demands, arguments, other). Masculine individuals were furthermore found to display higher levels of unhelpful types of support than feminine individuals, independent of their biological sex and the type of stressor (demands, arguments, other) the partner was dealing with.

**Combined effect of sex and gender on support provision in marriage**

The interaction between biological sex and gender identity did not reach significance for any of the self-reported support provision behaviour (instrumental support, emotional support, and unhelpful types of support).

**Other interesting findings**

Interestingly, the ANOVAs yielded a significant main effect of stressor type on instrumental, and emotional support provision, after controlling for biological sex and gender identity. Post-hoc analyses revealed that people (independent of their biological sex and gender identity), tended to provide higher levels of instrumental support when their partner was dealing with demands, as opposed to dealing with arguments, and other stressors. The reversed pattern was found for emotional support, with lower levels of emotional support provided when the partner was dealing with overload as compared to dealing with arguments, and other stressors.

**Discussion**

The present research complements and extends past research on the marital support gap hypothesis by (a) using a large sample of married individuals, (b) examining the relative impact of biological sex and gender identity on spousal support, and (c) assessing the MSGH across a wide range of stressors.
Several important findings emerged from the present study. First, in sharp contrast to the MSGH and past survey research (such as Vinokur and Vinokur-Kaplan 1990), our scenario-based results did not reveal differences between biological males and females in their support provision behaviour. Husbands and wives reported providing equal levels of emotional, instrumental, and unhelpful support when faced with a partner in distress. This pattern of results appeared to be consistent across stressor type. These findings lead us to our first conclusion: that biological sex does not seem to contribute to the amount of spousal support provided for a partner facing a broad range of daily stressful events.

Although inconsistent with the support gap hypothesis, these null-findings parallel results from previous observational research on sex differences in spousal support (such as Neff and Karney 2005, Verhofstadt et al. 2007b). These findings lend further support to the idea that the empirical evidence for the support gap hypothesis varies depending on the methodology. Specifically, when a methodology is used that goes beyond global self-reports of support and that takes the particulars of spousal support into account— as is done in observational and scenario-based research- sex differences seem to disappear.

Our findings also lead to a second major conclusion, namely that a person’s support provision was uniquely predicted by his/her gender identity. Again these findings were consistent across stressor type. First, as compared to feminine people, masculine people reported providing higher levels of instrumental support for their spouse in distress. Second, feminine individuals reported higher levels of emotional support provision than masculine individuals. These findings are not surprising as the measurement of femininity by the BSRI can be defined as ‘emotional’, whereas the measurement of masculinity by the BSRI can be defined as ‘instrumental’. These findings are also remarkably consistent with that part of the MSGH that describes men and women as having different styles of providing support: men
are presumed to be more likely to offer instrumental support, whereas women are presumed to be more likely to provide emotional support. Our findings seem to indicate, however, that these assumed differences might be better interpreted in terms of gender identity than biological sex. It should be noted, however, that the conclusion about the role of gender identity in support behaviour may only be drawn with the recognition of the fact that individuals categorized as androgynous and undifferentiated were left out in the analyses.

Finally, as compared to feminine individuals, masculine individuals reported responding in a more negative way to a spouse in distress. This finding lends support to the view that feminine socialization better equips individuals to provide welcome and effective support to their partners than masculine socialization (Reevey and Maslach 2001).

A final conclusion of the current study is that the patterns of results described above were not qualified by the type of stressor the partner was dealing with. With regard to stressor type, the relative contribution of biological sex and gender identity to social support that was provided for a partner facing overload (such as demands at work, demands at home) was comparable to the contribution of biological sex and gender identity to social support that was provided for a partner facing interpersonal tensions (such as arguments with family or colleagues). The same was true for the partner facing other stressors (such as transportation problems). This is an interesting finding because the present study was one of the first to test if the support gap in marriage would differ as a function of stressor type, something that did not seem to be the case. However, replication of the cross-stressor consistency of our findings is needed in research that takes into account the more natural, spontaneous, and diverse contexts in which stress is experienced and support is provided (such as diary research).

Another unanticipated but interesting finding is that the amount of support provided did vary as a function of the daily stressor the partner was facing. More specifically, we found that participants reported providing higher levels of emotional support to a partner facing
interpersonal tensions or other stressors than to a partner facing overload. For instrumental support, the reverse pattern occurred, with participants reporting higher levels of instrumental support when their partner was facing a demand at work or at home than when facing an interpersonal tension or other stressors. These findings are in line with past research (such as Folkman and Lazarus 1980) indicating that different types of stressors tend to elicit different types of support. More specifically, interpersonal stressors are generally linked more strongly to emotion-focused coping, whereas work-related stressors are generally found to be associated with greater use of problem-focused coping (see Zwicker and Delongis 2010).

**Limitations to the study**

There are several limitations to this study that all point to the need for future research. First, a potential limitation of the current study concerns our choice of the sample in which to investigate sex and gender differences in social support. In the current study, we used a sample of white, heterosexual, married couples. It is not clear whether the current findings could be generalized to, for example, (a) participants involved in a same-sex relationship, (b) non-married participants who are involved in a long-term relationship, (c) participants from different racial and ethnic backgrounds. An important goal for future research will be to replicate these findings with couples drawn from more diverse samples.

Second, the number of feminine males that were included in our sample was small. So, the use of larger samples of males with high levels of stereotypically feminine characteristics will assist in determining the robustness of our findings.

Third, as we explicitly focused on the role of psychological femininity and masculinity in the prediction of support behaviour, we excluded the so-called androgynous participants out of the analyses. However, as an important group –that will probably become more and more important- they are an avenue for future research questions.
Fourth, the measurement of gender identity by means of the BSRI has its limitations. The BSRI is based on gender schema theory (Bem 1981a&b) and was developed to provide a measure of the extent to which an individual incorporates prevailing cultural definitions of masculinity and femininity into his/her self-concept. Since the development of the BSRI, both theory and research on gender roles have changed and the limitations of the BSRI’s categorization of personality attributes as ‘masculine’ or ‘feminine’ have been widely discussed (Hoffman and Borders 2001, Muehlenhard and Peterson 2011). Although the BSRI remains the standard in research on gender roles, there are other and more complex ways of thinking about gender identity (post-structural, queer gender theory) than the way it is done in the current study. We therefore strongly recommend the inclusion of additional conceptualizations and measures of gender roles in future research on partner support.

Finally, gender researchers have indicated that different cultures and sub-cultures have different forms of masculinity and femininity, resulting in the plural ‘masculinities’ and ‘femininities’ (Jackson 1991, Connell 1995). The measurement of gender identities with the BSRI has its limitations when participants’ cultural definition of masculinity and femininity is not explicitly assessed. The homogeneity of the current sample in terms of racial and ethnic background, relationship status, sexual preference (all white, Belgian, married, heterosexual individuals), while creating its identified shortcomings, justifies to a certain extent the use of the BSRI as a valid and appropriate measure of gender identity for this study. The usual caution should however be exercised in generalizing our results, as the cross-cultural replication of our results needs to be addressed in future research.

Despite several limitations, we believe that these findings contribute to the discussion concerning the origins of the support gap in marriage. Not biological sex per se, but people’s gender-role socialization seems to determine their skilfulness as a support provider in intimate relationships. As such, our findings are not consistent with the popular polarized conceptions
of pronounced sex differences in husbands’ and wives’ support transactions that are often rationalized in terms of the different cultures thesis (Wood 2000). Instead, our findings support the view that sex differences in intimate relationships are too often overemphasized thereby reinforcing divisions between marital partners (Wood and Dindia 1998). The current finding that both sexes are equally capable of providing effective support for their partner may be useful for couple therapists helping maritally dissatisfied spouses to become more supportive of their partners.

As we already mentioned in previous work, we wish to underscore the importance of continuing the empirical search for sex and gender differences in partner support as this contributes to a nuanced understanding of the dynamics of this important aspect of intimate relationships (Verhofstadt et al. 2007b). From a clinical point of view, it should be obvious that, until the field gains insights into the determinants of spousal support, the goal of understanding the mechanisms through which partner support serves its protective function against stress, as well as the goal of designing effective supportive interventions, will be difficult to achieve (Rafaeli and Gleason 2009).

Acknowledgements

The authors would like to thank the reviewers at the Journal of Gender Studies for their valuable comments and suggestions for improving this paper.

References


Cutrona, C.E. and Russell, D.W., 1990. Type of social support and specific stress: toward
Running head: Sex, Gender, and Spousal Support


Devoldre, I., et al., under revision. Are empathic people more supportive to their spouses?: a scenario-based study.


Runnign head: Sex, Gender, and Spousal Support


Table 1

Means and Standard Deviations for Emotional, Instrumental, and Unhelpful Support Types as a Function of Biological Sex, Gender Identity, and Stress Category

| Support type | Male | | | | Female | | | | | | Female |
|--------------|------|---|---|---|------|---|---|---|---|------|---|---|---|---|
|              | Masculine (n = 87) | | | | Feminine (n = 12) | | | | | | Masculine (n = 34) | | | | | Feminine (n = 102) | | | | | |
| Masculine (n = 87) | | | | | Feminine (n = 12) | | | | | | Masculine (n = 34) | | | | | Feminine (n = 102) | | | | | |
| Instrumental | Demands | Arguments | Other | Demands | Arguments | Other | Demands | Arguments | Other | Demands | Arguments | Other | Demands | Arguments | Other |
| Emo | .41 | .39 | .3 | .32 | .24 | .3 | .44 | .34 | .40 | .35 | .31 | .30 |
| .27 | .28 | .27 | .25 | .16 | .19 | | .26 | .27 | .27 | .23 | .26 | .25 |
| .4 | .27 | .29 | | | | | | | | | |
| Unhelpful | Demands | Arguments | Other | Demands | Arguments | Other | Demands | Arguments | Other | Demands | Arguments | Other | Demands | Arguments | Other |
| .12 | .11 | .1 | .06 | .03 | .1 | .11 | .12 | .13 | .06 | .05 | .06 |
| .19 | .18 | | | | | | | | | | |

Note. Standard deviations are given in parentheses.

Endnotes

1 $F(1, 231) = 0.30, ns$

2 $F(1, 231) = 0.01, ns$

3 $F(1, 231) = 0.01, ns$

4 $F(1, 231) = 4.53, p = .03$

5 $F(1, 231) = 10.56, p = .001$

6 $F(1, 231) = 6.38, p = .01$
\textit{vii} \( F(1, 231) = 0.03 \) \textit{ns}

\textit{viii} \( F(1, 231) = 1.06 \) \textit{ns}

\textit{ix} \( F(1, 231) = 0.01, \) \textit{ns}

\textit{x} \( F(2, 230) = 3.46, \) \textit{p} = .03

\textit{xi} \( F(2, 230) = 8.64, \) \textit{p} = <.001

\textit{xii} \( t(234) = 2.50, \) \textit{p} = .01

\textit{xiii} \( t(234) = 3.20, \) \textit{p} = .002

\textit{xiv} \( t(234) = 3.58, \) \textit{p} < .001

\textit{xv} \( t(234) = 6.04, \) \textit{p} < .001