Expectations about victim and offender behaviour during stranger rape

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Abstract

The aim of this study was to examine expectations about victim and offender behaviours during

stranger rape. These expectations were compared with the empirically derived data of actual victim

and offender behaviours. Furthermore, three attitudes/beliefs were assessed in relation to these

expectations: rape myth acceptance, gender role attitudes, and belief in a just world. Seven hundred

and fifty eight undergraduates took part in the study. The results show that participants significantly

overestimated the frequency of 29 out of the 30 victim and offender behaviours examined (one

behaviour was underestimated). An inconsistent relationship was found in predicting the expectancies

via rape myth acceptance, gender role attitudes, and belief in a just world. These findings are

examined in the context of the criminal justice system and how expectancy violation may affect the

perception of rape victim and offenders' behaviours.

Key words: Expectancy Violation Theory; rape myths; belief in a just world; gender role attitudes

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Rape is a crime that presents numerous challenges to our criminal justice systems. It continues to experience both considerable under-reporting and a low conviction rate (HMCPSI/HMIC, 2007; Kelly, Lovatt, & Regan, 2005). Explanations for the low conviction rate are numerous with considerable attrition levels throughout criminal justice processes (Kelly, 2008), however, one area of focus has been to understand how pervasive myths and stereotypes impact upon decision making within criminal justice systems.

Rape myths can be defined as "attitudes and beliefs that are generally false but are widely and persistently held, and that serve to deny and justify male sexual aggression against women" (Lonsway & Fitzgerald, 1994, p. 134). These beliefs have been linked with the 'real rape' stereotype (Estrich, 1987) where an event is only considered rape if it involves a stranger wielding a weapon, down a dark alleyway (Golge, Yavuz, Mudderrisoglu, & Yavuz, 2003). Such beliefs can result in the blaming of the victim and also the narrowing of the definition of what represents rape (Peterson & Muehlenhard, 2004). Furthermore, rape myths may perpetuate rape in our society, where each type of rape myth offers a reason for why what happened to the victim did not actually constitute rape. This provides a barrier to victims seeking help or even acknowledging what happened to them as rape (Campbell, Dworkin, & Cabral, 2009). This is despite the fact that rape myths do not accurately represent the true reality of rape. For example, rape myths suggest that rape should only occur between strangers, down dark alleyways (Golge et al.), and that a rape victim should engage in physical resistance (Kassing & Prieto, 2003). This is despite consistent evidence that shows a rape victim is more likely to have some level of acquaintance with the perpetrator (Du Mont, Miller, & Myhr, 2003), that rape is more likely to occur in either the victim's or perpetrator's home (Feist, Ashe, Lawrence, McPhee, & Wilson, 2007), and that victims often report freezing (Walker, Archer, & Davies, 2005).

Such beliefs have been found to be held widely in our society, with levels of acceptance ranging from 19-57% (Sussenbach & Bohner, 2011). These beliefs have been demonstrated to be held by criminal justice personnel such as the police and legal professionals (e.g., Page, 2010; Sleath & Bull, 2012; Temkin, 2000) and to have an impact throughout the criminal justice system e.g., in the reporting and progression of cases (Chen & Ullman, 2010; Harris & Grace, 1999). More importantly, these beliefs have been demonstrated to affect mock jurors' decision making in relation to rape cases

(Ellison & Munro, 2009, 2010). For example, Schuller and Hastings (2002) found that the more participants endorsed rape myths, the less credible/more blameworthy the victim was perceived to be, whereas the opposite effect was found for the defendant with the greater endorsement of rape myths leading to the defendant being considered more credible and less blameworthy. Also, Gray (2006) found that when mock jurors received a judge's summing up that was supportive of rape myths, they were more confident of the defendant's innocence compared to those who received a summing up that was anti-rape myths.

As well as showing that overall myth endorsement has an impact on juror decision making, the literature has examined whether the victim behaving in a myth congruent way impacts upon judgments of the victim's credibility, blame, and/or responsibility for being victimised. For example, studies that have manipulated the level of resistance displayed by the rape victim during the offence have shown that resistant victims are viewed more positively (Sims, Noel, & Maisto, 2007). Also, the emotions expressed by a victim when reporting a rape affect people's judgments of victim credibility such that when a victim displays myth congruent emotions (e.g., upset, distressed) s/he is perceived as more credible (Bollingmo, Wessell, Eilertsen, & Magnussen, 2008).

Expectancy violation may provide one explanation for such findings. For example, Ask and Landstrom (2010) established that, in relation to the emotional expressiveness of a rape victim, some people have expectations about the emotions a rape victim will display when reporting their rape to the police. For those participants who held these expectations, the emotionally expressive victim was assessed as more credible compared to the non-emotionally expressive victim (see also Hackett, Day, & Mohr, 2008; Klippenstein & Schuller, 2012). These findings are explained via Expectancy Violation Theory (see Burgoon & Hale, 1988; White, 2008). This theory suggests that it is not the actual behaviour of the rape victim that affects the assessment of credibility, rather it is whether this behaviour corresponds with the observers' expectations of that behaviour (Hackett et al., 2008; Olson, Roese, & Zanna, 1996). Therefore, the non-emotionally expressive victim was viewed as less credible because of the violation of the expectancy of emotional expressiveness, rather than a judgment about the behaviour itself.

These findings have implications for our criminal justice systems, particularly in relation to jury decision making. They suggest that it is important to establish exactly what expectations potential jurors may have in relation to rape victims and perpetrators as should these expectations be susceptible to being violated during a rape trial, this may impact upon assessments of victim and/or defendant credibility and thus affect decisions of guilt or innocence of the defendant. However, these studies of emotional expressiveness focus on expectations of behaviour *after* the rape has occurred and on only one behaviour that a rape victim may demonstrate (i.e., emotional expressiveness). No current research has established the frequency of potential jurors' expectations about rape victim and offender behaviour *during* rape. Therefore, the current study sought to address this by establishing potential jurors' expectations, in relation to the frequency of occurrence of specific behaviours that are known to occur during rape.

As argued by McAuliff and Bull-Kovera (2012), people expect behaviours across a variety of settings, anticipating those that are assessed to be both typical and feasible. Therefore, it is logical to suppose that jurors will have expectations about aspects of the victim and offender behaviour *during* the rape itself, which may be based in stereotypes such as rape myths. As Burgoon (1993) suggests, expectations originate in societal norms for what is typical or appropriate behaviour. However, the literature on rape myths suggests that these expectations about victim and offender behaviours may be divergent from what really occurs during actual rape cases. This is because of the potential for these expectations to be grounded in rape myths. For example, rape myths suggest that a rape victim should engage in physical resistance (Kassing & Prieto, 2003), despite evidence that victims often report freezing (Walker, Archer, & Davies, 2005).

In understanding the basis of expectations, it is likely that rape myths provide a framework upon which expectations are built. However, in developing an understanding of what may guide people's expectations of victim and offender behaviour, in addition to measuring rape myth acceptance, two further attitudes/beliefs were assessed in the current study which have previously been related to attitudes about rape victims. The first was Belief in a Just World (BJW). Acceptance of this belief means that the individual believes the world to be a just and fair place where good things happen to good people (Lerner, 1980). Previously, this belief has been utilised as an explanation for

rape victim blaming where the need to maintain this belief results in blame being attributed towards the victim (Hafer, 2000). The vast majority of this research has focussed upon general BJW, and a somewhat inconsistent relationship with rape victim blaming has been found (e.g., Murray, Spadafore, & McIntosh, 2005; Rye, Greatrix, & Enright, 2006). As such, it is appropriate to investigate beliefs about the world that relate to the individual (i.e., personal BJW). Since, beliefs about rape are based on an individual's conception of rape (Schuller & Stewart, 2000), personal BJW may be more clearly related to attitudes about rape victims' behaviour compared to a general belief about the justness of the world.

The second attitude that was examined is gender role attitudes. Generally, participants with more traditional attitudes have been found to attribute a greater level of blame towards the victim and to have a higher level of rape myth acceptance (e.g., Shechory & Idisis, 2006; Truman, Tokar, & Fischer, 1996). Using the Sex Role Egalitarianism Scale (SRES) as a measure of gender role traditionality, some studies have demonstrated that the more traditional an individual's views, the greater the level of victim blaming (Simonson & Subich, 1999) and the more the seriousness of the rape was minimised (Yamawaki & Tschanz, 2005). However, no previous literature has extended such findings to gain an understanding of how traditional attitudes about gender may relate to expectancy frequencies relating to victim and offender behaviours. Given these findings (e.g., in relation to blame and rape minimisation), it was appropriate to extend the current research and use the SRES to examine if there was any relationship between egalitarian attitudes about gender and expectations about rape victim and offender behaviour.

As this study examined expectations of behaviour regarding *both* the victim and the offender, it broadened the research area's frequent sole focus upon the victim. Therefore, the present study represented innovative research in establishing what are potential jurors' expectations about specific victim and offender behaviours that occur during stranger rape and what are the level of these expectations e.g., whether there is an expectation that every rape victim engages in physical resistance. Therefore the first aim of this study was to establish expectancies regarding specific victim and offender behaviours during stranger rape. To be most useful, the present study compared these expectancy frequencies of victim and offender behaviours to frequencies of actual victim and

offender behaviours during stranger rape (as established within empirical studies) to understand the importance of any potential differences. The data sources that these empirical studies rely upon are frequently rapes reported to the police and as such it is recognised that these empirically derived frequencies may not reflect the true levels of these behaviours occurring during rape (e.g., because of underreporting to the police). However, at this point in the research, empirical studies of victim and offender behaviour offer the best understanding that is available of what behaviours occur during rape (see Table 1 for where this data were sourced from). The findings from the current study have practical implications in providing an explanation for why rape victims can be perceived negatively. For example, victims who do not physically or verbally resist their attacker may be viewed as less credible because such cases violate expectations of resistance. There is a substantial body of literature that has examined how victim and offender behaviours affect judgements of credibility and/or blame, however, we have little knowledge of jurors' expectations in relation to frequencies of actual rape victim (or offender) behaviour. This novel study sought to address this gap by investigating expectations of 30 rape victim and offender behaviours that occur in stranger rape, and compared these to what is known in the empirical literature regarding their occurrence. This allowed us to investigate whether expectations that rape victims should resist their attack, translate to an expectation that *every* rape victim will engage in resistance.

Considering the widespread nature of rape myths and their presence in popular media (Franiuk, Seefelt, & Vanello, 2008) it was predicted that participants' estimates of the frequency of occurrence of 30 victim and offender behaviours would differ substantially from what has been empirically established. It was predicted that participants would over-estimate the frequency of behaviours due to their basis in pervasive rape myths, which would suggest them to be more common than they are. In relation to the attitudinal scales, it was predicted that rape myth acceptance would be related to higher estimates of behavioural frequency for rape myth congruent behaviours e.g., physical resistance, weapon use. Furthermore, general and personal BJW were predicted to be related to higher frequency estimates. Finally, egalitarian attitudes about gender would be related to lower frequency estimates of victim and offender behaviour.

Method

Design

A survey examined the differences between participants' expectations of victim and offender behaviour during stranger rape and the estimated levels of actual victim and offender behaviours, as established from existing empirical research. Secondly, the relationships between expectations of victim and offender behaviours and (i) rape myth acceptance, (ii) belief in a just world (personal and general), and (iii) egalitarian attitudes about gender, were examined.

Participants

Psychology undergraduates attending a United Kingdom university were sampled at two data collection points (to gather sufficient participant numbers). No significant differences (p > .05) were found in the variables being examined in the study between these two points in time and so the two data collection points were analysed as one sample. The first set of participants consisted of 511 undergraduates (427 females, 84 males). Their mean age was 20.16 years (SD = 3.26). The second set of participants consisted of 247 undergraduates (205 females, 42 males). Their mean age was 18.86 years (SD = 1.52). The total sample size was 758 participants (this does not include two participants removed prior to data screening). Students were sampled in this study to establish a preliminary understanding of the expectations that exist in relation to victim and offender behaviours. Previously, students have been found to demonstrate similar attitudes in relation to rape as the general population (e.g., Davies & McCartney, 2003; Foley & Pigott, 2000). Therefore, the participants are considered to demonstrate attitudes that are congruent with those that would be demonstrated by potential jurors in the general population.

Materials

Empirically derived behavioural frequencies.

The current study required frequencies of actual victim and offender behaviours during rape, so that these could be compared with participants' expectations of the frequencies of those behaviours. Therefore, the empirical literature on victim and offender behaviour was searched via PsycINFO and other search engines using broad terms of "rape" and "behaviour" to ensure that all relevant literature was found. This broad approach was taken to ensure that all literature related to

rape behaviours was found. The search term "rape" was used to ensure that only studies that examine this particular crime were included. The search term "sexual assault" was not used as this can encompass a broad range of different types of sexual crimes and as such would not provide a clear understanding of behaviours that occur only during rape (which was the focus of this study). Literature on stranger rapes committed by lone offenders was reviewed as this was the focus of the present study. However, many empirical studies of rape victim/offender behaviour have utilised samples containing a mix of stranger/acquaintance, single/multiple offenders and/or serial/one-off offences. While studies that sampled only rape types that did not meet our criteria (e.g., only acquaintance rapes, only group rapes) were excluded from our review, those that had a majority of stranger, lone offender cases of rape in their samples were included. This decision was taken because the existing literature on rape victim and offender behaviour is limited (see Table 1 for the included studies). Furthermore, in searching the available literature, victimisation surveys were not included because the level of data they provided was too general to provide comparison data for the purpose of this study. For example, a recent publication by the Ministry of Justice (2013) only provides age and relationship data in terms of the nature of sexual offences against females.

This review established that the current literature had a very limited understanding of victims' behaviours in stranger rape with Woodhams, Hollin, Bull, and Cooke (2012) providing the only detailed review. While there were more studies of offender behaviour, a lack of consistency in behaviour terminology and how behaviours were defined meant that it was challenging to establish the frequency of some behaviours. Following the review, 15 victim and 15 offender behaviours were selected that demonstrated a range of frequency of occurrence during stranger rape (see Table 2). These were selected for use within the current study on the basis that these were behaviours that were established, via the empirical papers, to occur during actual cases of rape. Therefore, participants were being asked about their expectations of behaviours which are known to occur during actual rape cases. As such, these may be behaviours that participants (as jurors) would encounter if they had to judge an actual case of rape. Weighted averages by sample size were calculated for each of the behaviours and these were used as a comparison point for the participants' expectancies of frequency.

Expectations of victim and offender behaviour scale.

This questionnaire assessed participants' expectations of the frequency of occurrence for victim and offender behaviour during rape. It was constructed to refer to the 15 victim and 15 offender behaviours established in the prior review. It asked participants, out of 100 cases of rape, how often they estimated that a particular behaviour occurred. For example, "I think a victim would scream or shout for help in _____ out of 100 stranger rapes". For this study, participants were asked to focus on stranger rapes that involve a single male perpetrator and female victim, thus giving participants a rape scenario framework upon which to base their expectations. Stranger rape was chosen to be focussed upon in this study to provide a baseline understanding of frequencies. Previous studies in the area of rape perception have demonstrated that stranger rape victims are attributed less blame and more credibility in comparison with other types of rape victims (e.g., acquaintance, date, marital) (Monson, Langhinrichsen-Rohling, & Binderup, 2000; Pollard, 1992). Therefore, stranger rape was chosen as it was believed that this represents a type of rape that attracts the least biased perceptions from participants. Future research will examine whether these expectations are more divergent in other types of rape.

The following questionnaires measured attitudes and beliefs predicted to be associated with participants' expectations regarding the frequency of the 30 victim and offender behaviours:

Illinois Rape Myth Acceptance scale (IRMA) (Payne et al., 1999).

This scale includes 40 rape myth items as well as five filler questions. Reliability analyses for the current study revealed an alpha of .95 demonstrating an excellent level of reliability. The response scale for this questionnaire is along a seven point scale, labelled 1-very strongly disagree to 7-very strongly agree with a neutral midpoint of 4-neither agree nor disagree. Higher scores reflect a higher level of acceptance of rape myths. An example item is "Women who are caught having an illicit affair sometimes claim that it was rape".

Acceptance of Modern Myths of Sexual Aggression (AMMSA)(Gerger, Kley, & Bohner, 2007).

This scale was used in the second stage of data collection. This is because of some concerns raised regarding the IRMA in that Gerger et al. (2007) suggest that the IRMA (as well as other rape myth acceptance scales) suffer from low mean scale responses and non-normally distributed items

responses, which may affect the reliability of the scale. Therefore, the decision was made to use the AMMSA during the second stage of data collection. This scale includes 30 rape myth items. Reliability analyses for this study revealed an alpha of .88 demonstrating a good level of reliability. The response scale for this questionnaire is along a seven point scale, labelled 1-totally disagree to 7-totally agree with a neutral midpoint of 4-neither agree nor disagree. Higher scores reflect a higher level of acceptance of rape myths. An example item is "When it comes to sexual contacts, women expect men to take the lead".

General Belief in a Just World (GBJW)(Dalbert, Montada, & Schmidt, 1987).

An English language version of this general belief in a just world scale was used. This is a six item scale with responses ranging from 1-strongly disagree to 6-strongly agree. Reliability analysis in this study revealed an alpha of .77, which is acceptable. An example of a scale item is "I am convinced that in the long run people will be compensated for injustices." Higher scores on this measure reflect a greater belief that the world is generally just and fair.

Personal Belief in a Just World (PBJW)(Dalbert, 1999).

This is a seven item scale with responses ranging from 1-strongly disagree to 6-strongly agree. An example item is "I believe that I usually get what I deserve". Reliability analysis in this study revealed an alpha of .85. Higher scores on this measure reflect a stronger belief that the world is just and fair for that individual.

Sex Role Egalitarianism Scale Short Form BB (SRES)(Beere, King, Beere, & King, 1984).

Form BB of the Sex Role Egalitarianism Scale was used to measure attitudes regarding the equality of men and women across five domains: marital roles, parental roles, employment roles, social-interpersonal-heterosexual roles, and educational roles. This measure contains 25 scale items. Higher scores on the scale represent more egalitarian and less traditional attitudes about gender. An example item is "The husband should be the head of the family". The response format is along a five-point response set ranging from 5-strongly agree to 1-strongly disagree (some items are reverse scored such as the example item above). Reliability analysis in this study revealed an alpha of .88 which is a good level of reliability.

Procedure

This study was approved by the University's Ethics Committee and followed the guidelines as laid down by the British Psychological Society. Data collection occurred in two stages over a period of two years to ensure a sufficiently large sample size (no significant statistical differences were found between these two samples on the basis of the variables included for analysis within the study). However, as slightly different questionnaires were used across stages one and two (see below for the exact questionnaires used in each stage), the findings of this study are reported separately below. On both occasions, participants were invited to take part in the study through a departmental Research Participation Scheme. Through this scheme, students take part in research studies to gain course credit. The questionnaires were presented to students through an on-line survey. During the first data collection phase, participants were presented with the expectations of victim and offender behaviour scale (which were counterbalanced) followed by the PBJW, SRES, and the IRMA. During the second data collection phase, participants were presented with the expectations of victim and offender behaviour scale (which were counterbalanced) followed by the PBJW, GBJW, SRES, and AMMSA. Prior to participation, participants were strongly recommended not to take part in the study if they had been a victim of serious crime. Participants were only identifiable by a self-selected participant number enabling anonymous participation in the survey. They could withdraw at any stage of the survey and were informed of their right to withdraw post-survey completion up to an end date of the data collection stages. The data were screened prior to the statistical analysis. Completion times were assessed for the study and two participants were removed from the analysis as their completion of the measures took less than ten minutes. The mean response time for participants was 19.69 minutes (SD = 8.07).

Results

Initially, independent samples t-tests were computed on the participants' estimated frequencies of each of the 15 victim and 15 offender behaviours to establish if there was a gender effect. A Bonferroni correction was applied to the p value resulting in a p value for these tests of p < .002. There was only one significant gender difference (t(131.09) = 3.67, p = .001) for victim

behaviours in that males expected more victims (M = 72.04, SD = 22.69) to hit the offender compared to female participants (M = 61.73, SD = 26.92). This difference represented a medium effect size (r = .31). As there was not a consistent pattern of difference in expectations between males and females, gender was not analysed further.

The data were analysed in a two part process. The first part utilised the data from all 758 participants regarding their expectations of victim and offender behaviours. The second part analysed data separately for the two data collection points. This is because a different measure of rape myth acceptance was used at each data point. This part of the data analysis assessed the relationship between expectations of the frequency of victim and offender behaviours with the attitude scales (rape myth acceptance, belief in a just world, and sex role egalitarianism).

Expectations about victim and offender behaviours

To analyse any differences between participants' expectations about the frequency of victim and offender behaviours and the empirically-derived weighted average for each behaviour, one sample t-tests were carried out. As multiple t-tests were conducted a Bonferroni correction was applied to the p value (p < .003). The analysis of victim behaviours demonstrated that participants' expectations of the frequency of victim behaviours were all significantly different from the empirically-derived means (see Table 3). Specifically, participants overestimated the occurrence of all victim behaviours with the majority of these demonstrating large effect sizes.

A second set of one sample t-tests were carried out to analyse offender behaviours. The analysis of the frequency estimates for offender behaviours demonstrated that participants' expectations all significantly differed from the empirically derived figures. Participants significantly overestimated the occurrence of 14 of the 15 offender behaviours with the majority of these demonstrating large effect sizes (see Table 4). One behaviour (offender kicking the victim) resulted in an underestimation.

Relationship between expectations of victim and offender behaviour and rape myth acceptance, belief in a just world, and sex role egalitarianism

A descriptive analysis of the attitude scales of BJW (personal and general), rape myth acceptance (as measured by the IRMAS and AMMSA), and sex role egalitarianism (SRES BB) was conducted (see Table 5).

The following set of analyses examined the data from the first data collection point. Standard multiple regressions were carried out to examine the relationship between participants' expectations of frequency of the fifteen victim behaviours and three predictor variables: Rape myth acceptance (IRMA), personal BJW, and sex role egalitarianism. Rape myth acceptance (IRMA) predicted an increased expectation that victims would scream or shout, run away, and that victims would pursue their offender. Sex role egalitarianism predicted an increased expectation that victims would scream or shout, run away, punch the offender, and struggle. Personal BJW did not predict participants' expectations about victims' behaviour (see Table 6).

Standard multiple regressions were carried out to examine the relationship between the expectations of the fifteen offender behaviours and three predictor variables: Rape myth acceptance (IRMA), personal BJW, and sex role egalitarianism. Rape myth acceptance (IRMA) predicted an increased expectation of offenders binding or tying up their victims, of engaging in anal penetration, and displaying a weapon to their victims. Personal BJW predicted a decreased expectation of offenders binding or tying up their victims, of engaging in anal penetration, of ripping the victims' clothes, and kissing their victims. Sex role egalitarianism predicted an increased expectation that offenders would gag the victim and ripping her clothes (see Table 7).

The second set of analyses examined data from the second data collection point. Standard multiple regressions were carried out to examine the relationship between the expectations of the fifteen victim behaviours and four predictor variables: Rape myth acceptance (AMMSA), personal BJW, general BJW, and sex role egalitarianism. Rape myth acceptance (AMMSA) predicted an increased expectation that victims would pretend there was a witness, would scream or shout, that run away, and struggle with the offender. Sex role egalitarianism predicted an increased expectation that victims would scream or shout and run away. Personal BJW did not predict expectations about victim behaviour. General BJW predicted an increased expectation that victims would cry (see Table 8).

Standard multiple regressions were carried out to examine the relationship between the expectations of the fifteen offender behaviours and four predictor variables: Rape myth acceptance (AMMSA), personal BJW, general BJW, and sex role egalitarianism. Rape myth acceptance (AMMSA) predicted an increased expectation that offenders would bind or tie up their victims and engage in anal penetration. General BJW predicted an increased expectation of offenders binding or tying up their victims. Personal BJW and sex role egalitarianism did not predict any expectation of offender behaviours (see Table 9).

Discussion

This study found that for all of the 30 behaviours examined, participants' expectations were significantly different from the weighted average of occurrence of the victim and offender behaviours, as established from empirical research. For all of these expectations (bar one), participants significantly overestimated the frequency of the behaviour with large effect sizes for these differences. For example, in the present study, participants had a mean expectation that 85% of rape victims would scream or shout whereas according to published figures only 37% of victims engage in this behaviour. This difference between expectation and what research of actual rape cases has found increases the likelihood of this expectation being violated when a rape victim is encountered, since the victim is less likely to have engaged in this behaviour than participants would expect. When these expectations are violated, Burgoon (1993) argues that this is distracting to the individual, directing their attention away from the issue in hand, to focussing upon the violator and the behaviour that caused the expectation violation. Furthermore, these violations tend to result in individuals reacting in a negative way (e.g., perceiving the individual more negatively), as these violations result in a disconfirmation of pre-existing beliefs and expectancies (Olson et al., 1996). Expectation violations have also been shown to be more detrimental when they are negative violations, such as when the enacted behaviour is less frequent than the expected behaviour (Burgoon, 1993). In reality, the findings from this study suggest that the outcomes from the violation of expectations are likely to be negative, particularly since the expectations are significantly higher than the reported frequency for the behaviours as established within the empirical papers.

The outcomes from expectation violation have been demonstrated within the literature regarding rape victims' emotional presentation, where expectation violation results in a rape victim being attributed less credibility (Ask & Landstrom, 2010). As Hackett et al. (2008) found, heuristics function in conjunction with these expectations such that when the expectation is met (e.g., an emotionally expressive victim where a participant has an expectation that rape victims will be emotionally expressive), this is associated with truthfulness and credibility. The issue is that when this expectation is not met, it reduces the credibility of the rape victim and may be wrongfully attributed to the victim lying. These findings have significant importance in the context of the current study across the range of victim and offender behaviours examined, whereby any victim found not to enact a behaviour for which the participant has an expectation of that behaviour occurring, may be perceived as lacking credibility. Although the previous literature has demonstrated the impact of expectation violation in relation to victim behaviour, this has not been examined so far in relation to offender behaviour. Logically, expectation violation theory would suggest that violation of expectations would have a similar impact to that demonstrated in relation to victim behaviour e.g., a reduction in the perception of truthfulness and credibility. However, this has not been examined so far. White (2008) suggests that our perception of the individual (whether positive or negative) impacts upon how we perceive a violation. In relation to the perception of a rapist who may already be perceived negatively, violation of expectations will be evaluated more negatively because of the negative way in which the individual is already perceived. However, the general trend of the differences between the weighted average of occurrence of offender behaviours and the expectations of those behaviours appeared smaller than as demonstrated within the victim behaviours. This may suggest that the violation may be considered less negative as the enacted behaviours may be closer in frequency to the expectation of that behaviour. Future research in this area will need to develop this area, to examine the impact of expectation violation in relation to offender behaviour, particularly in relation to settings that relate to the criminal justice system such as jury decision making.

The issue that these expectancies may guide legal decision making and that the violation of these expectancies may lead to an additional potentially negative judgment of the rape victim has significant implications for criminal justice processes. In particular, it is important to understand how

these expectations may impact upon juror decision making. The findings from the current study suggest that there is a significant likelihood that jurors' expectations about rape victim and offender behaviour will be violated during a rape trial. Given the negative consequences of expectancy violation (e.g., in impacting the credibility attributed to the rape victim), the findings of this study suggest that there is a considerable need to educate jurors in relation to victim and offender behaviour. This is particularly important given that expectancy violation may in part explain why the credibility of the rape victim can become the focus of the trial rather than the assessment of the guilt/innocence of the perpetrator (Jordan, 2008). Juror education (via various means) continues to be discussed within the England and Wales with many arguing that the jury offers the best opportunity to address misconceptions about rape (e.g., Sinclair & Bourne, 1998). Furthermore, Ellison and Munro (2009) argue that juror education (in the form of expert evidence) must contain reference to the empirical literature in relation to rape victim and perpetrator behaviour. Other areas where misconceptions about rape (in the form of expectations of behaviour) can be addressed are via the use of the judge's Bench Book. The Crown Court Bench Book (2010) is a reference point to assist judges preparing directions for juries. As such, this text refers to the issue of jurors referring to perceived standards of behaviour and demeanour in relation to sexual offences. This recognises that judges are permitted to assist jurors by cautioning against the acceptance of unwarranted assumptions of behaviour with a particular focus on the victim. Both of these points may offer an opportunity to educate jurors, via expert evidence or advice from the judge, of the understanding that we have in relation to the frequencies of victim and offenders behaviours during rape as established within the empirical research, thereby minimising the likelihood of expectancy violation.

Examination of the potential relationships between the expectations of rape victim and offender behaviour and the three attitudes/beliefs measured revealed few clear relationships. Across the two data collection periods, rape myth acceptance consistently predicted increased expectations that the victim would scream or shout and that the victim would run away. As expectations relating to specific victim and offender behaviour have not been previously examined, it is not yet known whether these are consistent relationships. However, the consistency of the effect in relation to increased expectations that the victim would scream or shout or that the victim would run away

suggests that these are reliable effects. These findings suggest some tentative explanations for the basis of these particular expectations regarding victim behaviour. One considerable focus of rape myths is that the victim is physically active in attempting to resist being victimised (e.g., Kassing & Prieto, 2003) so it is logical that these behaviours demonstrate a relationship with rape myth acceptance. It is interesting that not all victim behaviours which could be considered physically resistant behaviours demonstrated a significant relationship. Other behaviours which were examined within this study include the victim struggling with the offender and the victim kicking the offender, however, no significant effect was found in relation to these behaviours. This may suggest that individuals are not using the real rape stereotype as a framework to guide their expectations of victim and offender behaviour. As this is the first piece of research which has examined specific victim behaviours, further research will need to gain an understanding of what guides these expectations.

In relation to offender behaviours, across the two data collection periods, rape myth acceptance consistently predicted increased expectations that offenders would bind or tie up their victims and anally rape them. As with the victim behaviours, the consistency of the relationship with rape myth acceptance and (i) offender binding or tying up the victim and (ii) anal penetration suggests that these are reliable effects. As to why these two specific behaviours may show a relationship with rape myth acceptance is something that needs to be examined further. These behaviours may indicate to individuals an increasingly serious and violent rape, where the victim is not only incapacitated but also subject to both vaginal and anal rape. This would fit with the idea that participants may be using the 'real' rape stereotype to guide their expectations of offender behaviour (e.g., Golge et al., 2003), where they expect to see higher levels of violent behaviours in relation to rape of which anal rape may be an example. Further evidence for this may be found in that one of the least rape myth congruent behaviours i.e., offender showed remorse, showed the smallest effect size in relation to the difference between the weighted average and participants' expectations. However, counter evidence to this point may be found in the point that expectations of some offender behaviours that are central to the real rape stereotype e.g., weapon use, were not related to rape myth acceptance. One explanation for this may be that all rape myth acceptance scales tend to focus upon myths relating to the victim and as such may explain why relationships, such as offender weapon use, were not found in the current study

(see also Sleath & Bull, 2012). As with the victim behaviours, further research needs to establish the basis of these expectations in relation to behaviours, particularly as to whether individuals are using the real rape stereotype as a framework by which to guide their expectations of certain behaviours.

In relation to BJW, this belief did not demonstrate a clear relationship with either expectancies of victim or offender behaviour across the two data collection periods. Personal BJW demonstrated no relationship with victim behaviours, whereas, general BJW predicted an increased expectation that victims would cry (second data collection stage). In relation to offender behaviours, personal BJW predicted a decreased expectation of offenders binding or tying up their victim, engaging in anal penetration, ripping the victim's clothes, and kissing the victim (first data collection point). However, during the second data collection point no such relationships were found. For general BJW, this predicted an increased expectation of offenders binding or tying up their victims (second data collection stage). As such, the pattern of findings suggest that BJW may not be an important factor in contributing to expectancies about victim and offender behaviour during rape. However, it is challenging to conclude further on this point as previous research in relation to BJW and attitudes about rape victims (e.g., blame) have also shown a considerable level of inconsistency. The BJW literature has demonstrated clear relationships between other types of victim blaming and higher adherence to BJW, however regarding rape victims, the literature is far less clear (e.g., Murray et al., 2005; Rye et al., 2006) with a range of different effects found. BJW theory suggests that when confronted with an innocent victim, one response is to blame the victim to enable the belief in a just world to be maintained (Hafer, 2000). This response may not be activated in relation to expectancies of victim and offender behaviour, since participants may not consider their BJW threatened when asked to consider such behaviours. However, given that the victim's behaviour is the first focus of attributing responsibility towards a victim (Correia, Vala, & Aguiar, 2001), this suggests that this relationship may merit further exploration.

In examining the relationship between egalitarian attitudes about gender and expectations about victim behaviours, two significant relationships were found. Egalitarian attitudes about gender consistently predicted increased expectations that victims would scream or shout or run away. Egalitarian attitudes about gender have previously been related to rape victim blame, rape myth

acceptance, and minimisation of the seriousness of rape (e.g., Simonson & Subich, 1999; Yamawaki & Tschanz, 2005). The present study suggests that the more egalitarian an individual is, the more often they expect rape victims to engage in screaming and shouting or running away from the offender. It may be that such individuals, because they have less traditional ideas about gender, have increased expectations that females are able to behave more actively in resisting victimisation. Theoretically, such a proposition would fit with expectations regarding a relationship between rejection of traditional gender roles and sexual assertiveness, however, research findings in this area have been mixed (Faulkner, Kolts, & Hicks, 2008).

This research has limitations in two respects. The first is that the data were gathered from student populations, which limit the generalisation of the findings. Future planned research will address this issue by sampling community-dwelling adults. It will be useful to establish whether there are any differences between student expectations and expectations from a community sample. However, previous research in this area has demonstrated that student populations do not demonstrate significant differences to the attitudes of those within the general population (e.g., Davies & McCartney, 2003). This suggests that the effects demonstrated within this current study should be generalisable to the general population. The second potential issue is the limitations found within the current literature examining the frequencies of victim and offender behaviours. The vast majority of this literature relies upon rapes reported to the police and as such these represent only the minority of rapes that occur within our society. Therefore, it must be recognised that the frequencies of behaviours found within these studies may not represent the true occurrence of victim and offender behaviour during rapes. Also, in reviewing this literature it became clear that many studies do not examine victim and offender behaviour in detail. For example, it may prove important to differentiate forms of violence committed against the victim, e.g., a slap versus a punch with a closed fist. This lack of differentiation between actions in many studies may have affected the reliability of the comparisons between the empirical literature and participants' expectations for these specific behaviours. Furthermore, the weighted averages were developed from data drawn from three countries and a range of years which may have affected their reliability. However, the current state of the literature means this limitation can only be acknowledged. When examining the behaviour data, it is clear these issues may affect some behaviours more than others. For example the offender's use of a gag shows relatively similar levels of occurrence across studies, whereas weapon use may be more affected by these factors in demonstrating a broader range of occurrence. Recent research by Woodhams and colleagues (see Woodhams et al., 2012; Woodhams & Labuschagne, 2012) has sought to examine both victim and offender behaviours in more detail and also to more clearly differentiate between types of rape (e.g., stranger rape, serial rape). This approach means that the research area will gain a much deeper understanding of both rape victim and offender behaviour, as well as understanding how behaviours may differ across different types of rape.

In conclusion, this research has demonstrated that people's expectations about the frequency of a range of both victim and offender behaviours are significant overestimations of what we have learned about their occurrence from empirical research. Future research is needed to understand the underpinning of these expectations as rape myth acceptance, BJW, and egalitarian attitudes about gender have only limited relationships with expectations about these behaviours. Also, the current limited research regarding expectancy violation has focussed upon how this will impact on the perception of the victim's credibility. This study provides findings which suggest that expectancy violation may also occur in relation to offender behaviours. How this impacts on the perception of the offender is a key area for future research. However, thus far, expectation violation may provide a strong explanation for the negative perception of rape victims within the criminal justice system. Further research will need to establish how such expectations may be addressed particularly to improve both rape victim care and their treatment within criminal justice systems.

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Table 1 Summary of Victim and Offender Behaviours from the Current Published Literature

Victim behaviours						
	Sample size	Country of origin	Origin of data	Level of acquaintance	Number of offenders	Series vs. one-off
Woodhams et al. (2012)	78 (community, female victims)	U.K.	Police reported rapes	All stranger rapes	92.3% single offenders, 7.7% multiple	39/78 committed by 13 offenders, 52/78 committed by one-off offenders
Koss, Dinero, and Seibel, & Cox (1988)	52 (college students, female victims)	U.S.	Self-report survey	All stranger rapes	83.5% single offenders, 16.5% multiple	All one-off offences
Offender behaviours						
	Sample size	Country of origin	Origin of data	Level of acquaintance	Number of offenders	Series vs. one-off
Park, Schlesinger, Pinizzotto, & Davis (2008)	22 (community, 21 female victims, 1 male)	U.S.	Police reported rapes	61.9% stranger, 19% acquaintance, 9.5% coworkers, 4.8% family members, 4.8% other relationship	22 single offenders	All one-off offences
Canter, Bennell, Alison, and Reddy (2003)	112 (community)	U.K.	Police reported rapes	All stranger	112 single offenders	Single offender and first detected offences of serial offenders ^b
Mokros and Alison (2002)	100 (community)	U.K.	Police reported rapes	All stranger	100 single offenders	61 one-off offences, 39 serial offences (first and last offence in the series included)
Scott, Lambie, Henwood, and Lambie (2006)	114 (community)	New Zealand	Police reported rapes	All stranger	114 single offenders	Single offender and first detected offences of serial offenders ^b
Koss, Dinero, and Seibel, & Cox (1988)	52 (college students, female victims)	U.S.	Self-report survey	All stranger rapes	83.5% single offenders, 16.5% multiple	All one-off offences

^a This study did not differentiate the numbers of each type of offender in their study.

^b This study does not specify levels of single vs. serial offences.

^c This study compared lone and group rapes, the description of the data did not differentiate at points between the lone and group rapes so individual values for level of acquaintance are not available.

^d This study did not examine whether the offences were serial or one-off offences

Table 2 Summary of Frequency Values for Victim and Offender Behaviours from the Current Published Literature

	Victim behaviour	Park, Schlesinger, Pinizzotto, & Davis (2008)	Canter, Bennell, Alison, and Reddy (2003)	Mokros & Alison (2000)	Woodhams et al. (2012)	Scott, Lambie, Henwood & Lambie (2006)	Koss, Dineros, & Seibel (1988)	Weighted Mean value
1	Scream or shout for help				42.70		31.50	38.22
2	Run away				26.70		22.60	25.06
3	Struggle				60.00		69.00	63.60
4	Kick the offender				17.30			17.30
5	Cry				17.30		53.30	31.70
6	Punch				13.30			13.30
7	Call the offender a name				8.00			8.00
8	Chase after or try to prevent escape				6.70			6.70
9	Hit/slap the offender				5.30			5.30
10	Avoid looking at offender				2.70			2.70
11	Freeze				8.00			8.00
12	Pretend there is a witness				4.00			4.00
13	True answer				25.30			25.30
14	False answer				6.70			6.70
15	Try to take the weapon away				5.30			5.30
	Offender behaviour							
1	Kiss the victim	18.20	44.00	42.00				40.72
2	Steal from the victim	42.90	12.00	12.50		50.00		26.55
3	Rip the victim's clothing	40.00	18.00	22.00				21.78
4	Anal penetration	35.00	19.00	18.00				20.08
5	Bind or tie up the victim	31.80	14.00	20.00		23.00 ^d		19.80
6	Show the victim a weapon	72.70	39.00	55.00			15.80	42.97
7	Tell the victim not to report		23.00	18.00				20.64
8	Gag the victim with an object	18.20	11.00	17.00				14.24
9	Compliment the victim	20.00	16.00	20.00				18.09
10	Express remorse	15.00 ^a		13.00				13.36
11	Slap or hit the victim	68.20 ^b	c	c			27.60	39.67
12	Kick the victim	68.20 ^b	c	c				68.20
13	Swear at or call the victim names	26.30	18.00	13.00				16.64
14	Punch the victim		c	c		23.00 ^d		23.00
15	Disguise identity		6.00	16.00				10.72

^a This category described the behaviour as making apologies

^b This category was described as manual hitting or slapping and so the value is used across the two categories.

^c Violent acts within this paper were only differentiated by multiple and single acts of violence and so these values are not reported here.

^d This category included punches, pushing, shoving and immobilization so this value is used across the categories of bind or tie up and punching the victim

Table 3

Expectations of Victims' Behaviours Compared with the Empirically Derived Means of Victim Behaviours.

	Study	sample				
Victim Behaviour	Range %	Mean %	Empirically derived mean	Magnitude of difference	t value	Effect size (r)
Pretend witness	0-100	55.78	4.00	+51.78	49.22*	0.87
Take weapon	0-100	35.34	5.30	+30.04	29.91*	0.74
True answer	0-100	37.65	25.30	+12.35	11.45*	0.38
Kick	0-100	68.67	17.30	+51.37	55.51*	0.90
Scream shout	5-100	84.57	38.22	+46.35	66.50*	0.92
Cry	0-100	87.96	31.70	+56.26	102.84*	0.97
Run away	5-100	70.20	25.06	+45.14	46.68*	0.86
Punch	0-100	55.01	13.30	+41.71	40.54*	0.83
Call names	0-100	57.62	8.00	+49.62	45.29*	0.85
Avoid looking	0-100	67.71	2.70	+65.01	67.85*	0.93
Chase after	0-100	13.23	6.70	+6.53	9.06*	0.31
False answer	0-100	60.30	6.70	+53.60	50.45*	0.88
Hit	0-100	63.33	5.30	+58.03	59.43*	0.91
Struggle	0-100	84.00	63.60	+20.40	30.49*	0.74
Freeze	0-100	42.20	8.00	+34.20	33.63*	0.77

*p < .001

Table 4

Expectations of Offender Behaviours Compared with the Empirically Derived Means of Offender Behaviours.

	Study sample		Empirically	Magnitude		
Offender Behaviour	Range %	Mean %	derived mean	of difference	t value	Effect size
Binding	0-100	36.41	19.80	+16.61	20.75*	0.60
Don't report	0-100	73.23	20.64	+52.59	56.45*	0.90
Steal	0-100	42.62	26.55	+16.07	17.53*	0.54
Anal penetration	0-100	40.89	20.08	+20.81	23.26*	0.65
Gag	2-100	72.99	14.24	+58.75	73.16*	0.94
Rip	5-100	75.92	21.78	+54.14	72.18*	0.93
Kiss	0-100	50.73	40.72	+10.01	10.00*	0.34
Disguise	0-100	64.50	10.72	+53.78	61.63*	0.91
Display weapon	5-100	68.57	42.97	+25.60	34.26*	0.78
Offender punch	1-100	51.24	23.00	+28.24	33.12*	0.77
Offender kick	0-100	46.11	68.20	-22.09	-25.11*	0.67
Compliment	0-100	38.48	18.09	+20.39	21.52*	0.62
Offender slap	0-100	55.32	39.67	+15.65	17.45*	0.54
Offender swear	0-100	63.11	16.64	+46.47	54.48*	0.89
Remorse	0-90	17.94	13.36	+4.58	6.75*	0.24

^{*}p < .001

Table 5

Descriptive Statistics of Rape Myth Acceptance, Belief in a Just World (Personal and Global) and Sex
Role Egalitarianism.

	Personal BJW	Global BJW	SRES BB	IRMA	AMMSA
N	758	247	758	511	247
Mean	4.32	3.35	4.24	2.45	3.53
SD	0.75	0.83	0.43	0.77	0.69
Median	4.43	3.33	4.32	2.38	3.63
Skewness	-0.96	-0.30	-0.62	0.77	-0.36
Kurtosis	1.46	0.31	0.05	1.71	-0.25

Table 6

Multiple Regression Analysis of Victim Behaviours Predicted by Rape Myth Acceptance, Personal

Belief in a Just World, and Sex Role Egalitarianism (1st Data Collection).

			В	β	t
Scream Shout	F(3, 507) = 2.71, p = .05	$r^2 = .02$, $\Delta r^2 = .01$			
		PBJW	-0.14	-0.04	-0.84
		IRMA	0.07	0.11	2.12*
		SRES	0.25	0.14	2.67**
Run away	F(3, 507) = 2.75, p = .04	$r^2 = .02$, $\Delta r^2 = .01$			
		PBJW	0.16	0.03	0.73
		IRMA	0.13	0.14	2.67**
		SRES	0.26	0.11	2.01*
Punch	F(3, 507) = 2.62, p = .05	$r^2 = .02$, $\Delta r^2 = .01$			
		PBJW	0.31	0.06	1.34
		IRMA	0.09	0.09	1.73
		SRES	0.31	0.12	2.31*
Pursue	F(3, 507) = 6.73, p < .01	$r^2 = .04$, $\Delta r^2 = .03$			
		PBJW	-0.28	-0.08	-1.72
		IRMA	0.12	0.17	3.31**
		SRES	-0.02	-0.01	-0.17
Struggle	F(3, 507) = 2.88, p = .04	$r^2 = .02$, $\Delta r^2 = .01$		•	
		PBJW	0.08	0.02	0.53
		IRMA	0.02	0.03	0.57
		SRES	0.23	0.14	2.63**

^{**}p < .01 *p < .05

Table 7

Multiple Regression Analysis of Offender Behaviours Predicted by Rape Myth Acceptance, Personal Belief in a Just World, and Sex Role Egalitarianism (1st Data Collection).

			В	β	t
Binding	F(3, 506) = 7.34, p < .01	$r^2 = .04$, $\Delta r^2 = .04$			
		PBJW	-0.65	-0.16	-3.69**
		IRMA	0.09	0.13	2.42*
		SRES	0.02	0.01	0.17
Anal penetration	F(3, 507) = 8.35, p < .01	$r^2 = .05$, $\Delta r^2 = .04$			
		PBJW	-0.59	-0.13	-3.01**
		IRMA	0.15	0.18	3.43**
		SRES	0.04	0.02	0.31
Gag	F(3, 506) = 3.42, p = .02	$r^2 = .02$, $\Delta r^2 = .01$			
		PBJW	-0.19	-0.05	-1.12
		IRMA	-0.01	-0.02	-0.37
		SRES	0.23	0.12	2.33*
Rip	F(3, 507) = 3.68, p = .01	$r^2 = .02$, $\Delta r^2 = .02$			
		PBJW	-0.43	-0.12	-2.73**
		IRMA	0.04	0.06	1.11
		SRES	0.19	0.11	2.09*
Kiss	F(3, 507) = 4.98, p < .01	$r^2 = .03$, $\Delta r^2 = .02$			
		PBJW	-0.53	-0.11	-2.42*
		IRMA	0.05	0.06	1.06
		SRES	-0.21	-0.09	-1.61
Display weapon	F(3, 507) = 3.71, p = .01	$r^2 = .02$, $\Delta r^2 = .02$			
		PBJW	-0.31	-0.08	-1.87
		IRMA	0.10	0.14	2.73**
		SRES	0.11	0.06	1.11
**** < 01 *** < 05					

^{**}p < .01 *p < .05

Table 8

Multiple Regression Analysis of Victim Behaviours Predicted by Rape Myth Acceptance, Personal and General Belief in a Just World, and Sex Role Egalitarianism (2nd Data Collection).

			В	β	t
Pretend witness	F(4, 242) = 2.75, p = .03	$r^2 = .04$, $\Delta r^2 = .03$			
		PBJW	0.22	0.04	0.55
		GBJW	0.56	0.10	1.43
		AMMSA	0.24	0.17	2.41*
		SRES	0.15	0.05	0.73
Scream Shout	F(4, 242) = 3.41, p = .01	$r^2 = .05$, $\Delta r^2 = .04$			
		PBJW	0.33	0.09	1.35
		GBJW	-0.12	-0.03	-0.51
		AMMSA	0.19	0.22	3.12**
		SRES	0.32	0.18	2.49*
Cry	F(4, 242) = 4.24, p < .01	$r^2 = .07$, $\Delta r^2 = .05$			
		PBJW	0.22	0.07	1.05
		GBJW	0.57	0.19	2.80**
		AMMSA	0.08	0.11	1.61
		SRES	0.20	0.13	1.88
Run away	F(4, 242) = 3.34, p = .01	$r^2 = .05$, $\Delta r^2 = .04$			
		PBJW	0.21	0.04	0.60
		GBJW	0.08	0.02	0.24
		AMMSA	0.28	0.23	3.18**
		SRES	0.50	0.19	2.74**
Struggle	F(4, 242) = 2.86, p = .02	$r^2 = .05$, $\Delta r^2 = .03$			
		PBJW	-0.02	0.00	-0.07
		GBJW	0.28	0.08	1.14
		AMMSA	0.17	0.20	2.74**
		SRES	0.06	0.03	0.45

^{**}p < .01 *p < .05

Table 9

Multiple Regression Analysis of Offender Behaviours Predicted by Rape Myth Acceptance, Personal

Belief in a Just World, and Sex Role Egalitarianism (2nd Data Collection).

			В	β	t
Binding	F(4, 242) = 3.75, p < .01	$r^2 = .06$, $\Delta r^2 = .04$		•	
		PBJW	-0.14	-0.03	-0.47
		GBJW	0.87	0.20	2.94**
		AMMSA	0.15	0.14	1.96*
		SRES	0.14	0.07	0.92
Anal penetration	F(4, 242) = 4.07, p < .01	$r^2 = .06$, $\Delta r^2 = .05$			
		PBJW	-0.42	-0.08	-1.22
		GBJW	-0.27	-0.06	-0.82
		AMMSA	0.31	0.26	3.72**
		SRES	0.16	0.06	0.89

^{**}p < .01 *p < .05

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