Press coverage as a heuristic guide for social decision-making about sexual offenders

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Abstract

We present two studies examining the role of the British press in promoting heuristic-based decision-making about sexual crime. In Study 1, 1,014 press articles were used in order to examine the role of the availability heuristic. That is, we used the recent high-profile Jimmy Savile sexual offending scandal to investigate how this case impacted upon press reporting of sexual crime. We found a 295% increase in the frequency of sexual crime coverage after this case, in addition to a 22:1 over-representation of sexual crime prevalence. Linguistically, tabloid stories about sexual crime did not significantly differ in the twelve months following the Jimmy Savile scandal, though broadsheets were less negative in their coverage after the scandal broke. Tabloid headline descriptors of sexual offenders were also substantially more offensive than those used by broadsheets. In Study 2, tabloid readership was associated with more negative attitudes and preferences for harsher punishments for sexual offenders, which we propose may be attributable to the affect heuristic. We discuss our findings within the context of dual-process cognition, and argue that the national press promote heuristic-based thinking about the issue of sexual offending. Future research avenues, and potential implications for press engagement, are also identified.

Keywords: sexual crime, media influence, attitudes, sex offenders, Jimmy Savile
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Media analyses of contentious social issues are often based around specific cases or scandals (Kovach & Rosenstiel, 1999). The result of this is that reporting takes on a more populist, emotion-based approach (Harper & Treadwell, 2013; Pantti, 2010), using heuristic, rather than rational, methods.

Dual-process models of information processing assert that people use two distinct 'systems' in order to make decisions (for a popular review, see Kahneman, 2011). System 1 works quickly, and relies on the heuristic appraisal of information, which is typically based upon learned implicit associations. Information is not encoded in a logical manner, but rather as images, metaphors, and narratives (Berger, 2007). These heuristics can be conceptualised as mental shortcuts that enable the easy processing of incoming stimuli. Two heuristics that will be examined within the paper are availability and affect (see below).

In contrast, System 2, is characterised by the conscious and systematic appraisal of stimuli, with judgements being changeable as new information is acquired and processed. It is logical and integrated, allowing for cross-modal and interdisciplinary connections to be made in an attempt to make sense of the problem at hand. The result of this elaborative processing is delayed action, as the evaluation of information hinders fast information processing.

The availability heuristic. Tversky and Kahneman (1974) asserted that the ease at which a person can recall examples of particular categories determines how prevalent or important those categories are perceived as being. For example, Schwarz et al. (1991) found that participants rated themselves as less assertive if they recalled 12 occasions in which they had demonstrated this characteristic than participants who recalled only six occasions. The
authors suggested that this was because recalling fewer incidence of assertiveness was an easier task, with these examples being more readily available in memory.

Kuran and Sunstein (1999) described how public perceptions of the nature and importance of a topic can be manipulated by ‘availability entrepreneurs’ (p. 687). These are stakeholders (e.g., news organisations or pressure groups) with a vested interest in a given topic, and an ability to change the direction of social discourse. In their ‘availability cascade’ model, Kuran and Sunstein (1999) argued that availability entrepreneurs set the tone about particular topics, and then increase media coverage of them. This increased coverage in turn amplifies societal views, causing the cascade to become a self-fulfilling prophecy.

**The affect heuristic.** Slovic and Peters (2006) presented the affect heuristic, by asserting that an individual’s automatic emotional evaluations of an issue guide their judgements about it. The most commonly-cited example of this heuristic relates to activity on the stock market, with investment decisions typically being based on people’s (dis)liking of the companies in which they are investing (Kahneman, 2011).

The affect heuristic also applies to political preferences and perceptions about the benefits and risks associated with a range of policies. Finucane et al. (2000) found that manipulating information presented to participants about the benefits of a range of technologies (e.g., wind and nuclear power) had an inverse relationship on perceptions of risk, despite no information being presented about the risks posed by the technologies. That is, for example, presenting information about the high risks associated with a particular technology led to decreased perceptions of the benefits associated with it. This effect was interpreted as being symptomatic of the view that risk perceptions are based on how ‘good’ (or ‘not good’) they thought the technology to be.
The potential utility in applying heuristic-based models of cognition to understanding social responses to sexual offending has recently become an emerging concept. For example, Harris and Socia (2014) found that people make more punitive judgements about a case when the perpetrators are described as “sex offenders” than “people who have committed a crime of a sexual nature”. Imhoff (2015) found a similar trend in his data when he compared judgements about “paedophiles” and “people with a sexual interest in prepubescent children”. Both of these studies assert that it may be the case that responses to ‘sexual offenders’ (or ‘paedophiles’) may not actually reflect judgements about sexual offending as an act, per se, but rather they may be indicative of the visceral (i.e., emotional/affective) responses that we experience when being confronted with the ‘sex offender’ label itself. This label may be laden with particular connotations. For example, King and Roberts (2015) argued that the “sex offender” label is associated in many peoples’ minds with the media-proliferated image (i.e., the available example) of a predatory paedophile (see Harper & Hogue, 2014). As such, examining the role of press-induced heuristics in relation to social decision-making about sexual crime appears to be a critical area of inquiry.

**Aims of this Paper**

This paper represents a first attempt to systematically examine the potential relationships between press representations of sexual crime and public attitudes and policy judgements about this issue via the invocation of dual-process theory. This type of inquiry is currently missing in the literature, with Brown (2009) commenting on the dearth of empirical knowledge associated with psychological mechanisms that underpin public attitudes towards sexual offenders.

This paper is comprised of two studies, which examine the roles of the availability heuristic (Study 1) and the affect heuristic (Study 2) in social discussions and decision-making.
making about sexual crime. In Study 1, we used the high-profile re-emergence of the alleged sexual offending by former British broadcaster Jimmy Savile to devise a naturalistic experiment. Here, we compared data relating to the prevalence and emotionality of British press coverage of convicted cases of sexual crime sexual between August and November (inclusive) in 2012 (before the new Savile allegations) and 2013 (after the new Savile allegations). Thus, Study 1 examined the role of the availability heuristic in guiding social discourses about sexual offending. In Study 2, we examined differences in attitudes and responses to sexual offenders within the context of newspaper readership. That is, we investigated further the tentative conclusions outlined earlier by both Harris and Socia (2014) and King and Roberts (2015), by looking at the potential role of emotional newspaper reporting styles in moderating responses to the ‘sexual offender’ label. Thus, Study 2 examined the role of the affect heuristic in guiding attitudes and perceptions about sexual offenders.

Study 1

The Jimmy Savile scandal sparked widespread public debate about sexual crime in the U.K. Savile, who died in October 2011, faced questions about his sexual conduct during his lifetime, and maintained that he was “not a paedophile”\(^1\). A primetime television documentary aired a year after Savile’s death, and drew upon testimonies from several alleged victims and witnesses to Savile’s sexual offending. These witnesses described how Savile allegedly used his celebrity status to gain access to children and vulnerable people, and subsequently abuse them.

\(^1\) From this quote, given in a BBC documentary to the film-maker Louis Theroux, it is unclear as to whether Savile was using the ‘paedophile’ label in its clinical context (i.e., suggesting that he was not sexually interested in children), or in the popular context (i.e., suggesting that he was not a sexual offender). However, Savile was resistant to allegations of sexual offending earlier in his life.
The documentary led to the development of Operation Yewtree – a police operation that aimed to investigate historic sexual abuse perpetrated by high-profile public figures. This operation has led to the recording of almost 600 alleged crimes (Gray & Watt, 2013), six convictions, and numerous allegations of sexual offending being made against several others without convictions being achieved. Further, the UK Sentencing Council (2014) has since changed its guidance for sentencing sexual offences, adding separate appendices for historic offences, and listing an abuse of power, status, or social position as an aggravating factor (meaning that the presence of these factors would lead to a more punitive sentence).

Our aim in Study 1 was to examine trends in the prevalence and emotionality of British press coverage of convicted cases of sexual crime as a function of this high-profile (i.e., available) case example. As such, we drew upon data from a previous study (Harper & Hogue, 2015a). In this earlier work (completed in 2012 shortly before the re-emergence of the Jimmy Savile allegations), there were substantial over-representations of sexual crime prevalence (comparative to violent and acquisitive crimes), with sexual crime articles typically being comprised of inflated levels of negativity. We hypothesised that:

1. There would be an increase in the over-representation of sexual crime within the national British press as a function of the ‘available’ Jimmy Savile scandal
2. Articles within a post-Savile sample would be comprised of higher levels of negative emotion, anxiety and anger than the pre-Savile sample.

Methods

Data sourcing. The UK’s 10 most popular national newspapers (by print circulation) were chosen for analysis. These publications were *The Sun, Daily Mail, Daily Mirror, Daily Express, Daily Star, Daily Telegraph, The Times*, and *The Guardian*. Articles were initially
sourced through the LexisLibrary online database between 1st August 2012 and 30th November 2012, such as to coincide with external deadlines for the submission of an MSc-level thesis. In order to make the two datasets directly comparable, we collected the post-Savile dataset collected between the same dates in 2013. This enabled us to use as close to an experimental design as these data allowed.

Key phrases used to restrict the number of articles resulting from searches, as well as eligible offences, are presented in Table 1. The use of the asterisk following phrases such as “molest*” ensured the capture of potentially relevant articles containing words with these stems (e.g. ‘molestation’, and ‘molester’). Articles with ‘high similarity’ (as determined by the search software) were condensed into one result, reducing the likelihood of duplication. This approach follows previous studies into press reporting styles (Allen & Blinder, 2013).

As indicated in Table 1, we sourced articles about sexual, violent, and acquisitive crime. By collecting information about press coverage of other crime types, we were able to examine potential differences in reporting strategies between different categories of crime. As coverage of sexual crime is the focus of this paper, we only discuss differences between sexual crime and the two other crime types in detail. Specific information about the coverage of violent and acquisitive crime is available from the first author upon request.

Inclusion criteria and final sample. Articles were considered eligible for analysis if they were based around convicted cases of one of the pre-defined criminal offences (Table 1). This resulted in the exclusion of articles specifically written about cases such as those involving Jimmy Savile, given that he was deceased when the allegations against him were
made. Thus, this study examines the effect of the Savile case on general reporting, rather than reporting of the Savile case itself.

A final sample of 1,014 articles ($M = 126.75$ articles per publication) were eligible for analysis. This included 431 from the 2012 sample, and 583 from the 2013 sample (Table 2).

[Insert Table 2 Here]

**Analysis strategy.** To examine the prevalence of sexual crime reporting, we compared the relative rates of press coverage of each crime category within the dataset (e.g., the proportion of sexual crime articles to violent and acquisitive crime articles that we collected) to the relative prevalence of each crime category according to statistics from the Crime Survey of England and Wales (CSEW; Office for National Statistics, 2014). While these statistics clearly do not reflect an accurate picture of the true rates of offending behaviour (owing to many offences going unreported), these statistics offered an appropriate comparison to our press prevalence data. This is because our article selection criteria specifically excluded non-convicted (and thus, by extension, non-reported) allegations of offending.

Linguistic Inquiry and Word Count software (LIWC; Pennebaker, Chung, Ireland, Gonzalez & Booth, 2007) was used to analyse the linguistic composition of newspaper articles. LIWC analyses digitised texts in relation to 68 variables (e.g., word counts, emotionality indices), with the internal reliability of each category being high ($M_{\alpha} = .83$; Pennebaker et al., 2007). Findings using LIWC have been used in a range of theoretical and applied contexts (Pennebaker & Francis, 1996; Pennebaker, Mayne & Francis, 1997).

In relation to target linguistic variables in this study, we chose to focus on factors related to the notion of popular punitiveness (Bottoms, 1995). We identified four linguistic
variables within the LIWC software which seemed to examine relevant factors: ‘negative emotion’, ‘positive emotion’, ‘anger’, and ‘anxiety’. Negative emotion and anger within press articles were postulated as providing an affect-based basis for punitive responses to crime, with positive emotion potentially acting as a mediator of these variables. With regards to anxiety, there is a vast body of academic work on the roles of moral panic theory (Cohen, 1972/2002) and fear of crime (e.g., Dowler, 2003) in driving responses to offending behaviour.

Word cloud software (www.wordle.net) was used to examine the frequency of sexual offender descriptors within the headlines of newspaper articles. Word clouds are visual displays of qualitative data, depicting textual information according to the frequency at which it appears within a dataset. For example, a word that is used five-times more often than another within a text will be presented five-times larger within the word cloud. These displays have been used in a variety of situations, including by advertising companies, who examine search engine data when helping organisations design their websites. Lists of headline descriptors of sexual offenders were compiled using words from each sourced article. These descriptors were weighted according to the readership of the newspaper that used it. This strategy was used in order to reflect the extent to which descriptors were used by each newspaper, meaning that the resultant analyses represented the prevalence of headline descriptors in a broad sense. Word clouds were created separately for tabloid and broadsheet headlines, such as to represent the differences between these publication types with reference to how they describe sexual offenders.
Results

**Descriptive changes in sexual crime coverage.** Before any specific analyses were conducted, we noted a substantial increase in the frequency of sexual crime coverage in the British press in the 2013 article sample (comparative to the dataset collected in 2012). In 2012, our dataset contained 89 articles about sexual crime. However, in 2013 this figure was 262. This change represents a 295% increase in the frequency of sexual crime coverage by the national British press in the twelve months following the re-emergence of the Jimmy Savile allegations. Using a Poisson probability calculator, this increase was found to be statistically significant ($p < .001$).²

**Crime prevalence representations.** Sexual crime was subject to a ten-times over-representation within the 2012 press article sample (CSEW prevalence = 2% of crime; sample prevalence = 20%), rising to a twenty-two-and-a-half-times over-representation in the year 2013 (CSEW prevalence = 2% of crime; sample prevalence = 45%). These data, along with information about changes to the representations of violent and acquisitive crime prevalence for comparison, are demonstrated in Table 3.

[Insert Table 3 Here]

**Linguistic analyses of press articles.** For clarity, an overview of the linguistic analyses is presented in Table 4.

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² A Poisson probability calculator calculates the likelihood of an observed value (i.e., the number of press articles about sexual crime in the post-Savile dataset) occurring within the context of an expected value (i.e., the number of press articles about sexual crime in the pre-Savile dataset). For this analysis, we used the online calculator at http://www.danielsoper.com/statcalc/calculator.aspx?id=81
There were statistically significant year-on-year reductions in the use of words relating to negative emotion ($U = 8557, p = .017, r = 0.13$) and anger ($U = 8736.50, p = .032, r = 0.12$) in press articles about sexual crime between 2012 and 2013. However, no changes were observed in relation to the use of positive language ($U = 10331, p = .940$) or words related to anxiety ($U = 9552, p = .276$).

In order to examine whether particular types of newspapers could be implicated in these broad linguistic changes, we repeated the above analysis separately for data coming from tabloid (The Sun, Daily Mail, Daily Mirror, Daily Express, Daily Star) and broadsheet (Daily Telegraph, The Times, The Guardian) newspapers.

Within tabloid articles about sexual crime, there were marginally significant year-on-year reductions in relation to the use of words relating to negative emotion ($U = 4934, p = .088$), and anger ($U = 4857.50, p = .063$). However, no differences were observed in the pre- and post-Savile datasets in relation to tabloids’ use of positive emotion ($U = 5559, p = .651$), or anxiety-related words ($U = 5362, p = .396$).

In broadsheet articles, there was a statistically significant year-on-year reduction in the use of negative emotion words in stories about sexual crime ($U = 468.00, p = .042, r = 0.22$). No differences were observed in relation to the other target linguistic variables: positive emotion ($U = 562.50, p = .278$), anger ($U = 566.50, p = .296$); anxiety ($U = 599.00, p = .472$).

Differences between tabloids and broadsheets on all target variables were non-significant in 2012 (all $p$’s $> .05$) when examining stories written about sexual crime. However, broadsheet articles about sexual crime were comprised of significantly fewer words related to negative emotion ($U = 4887.00, p = .002, r = 0.19$) and anger ($U = 5506.50, p = .049, r = 0.07$) in the post-Savile article sample collected in 2013. No differences were
observed in this post-Savile article sample between tabloids and broadsheets in relation to their use of positive emotion ($U = 6109.50, p = .393$) or anxiety-related words ($U = 5915.00, p = .224$) when reporting on cases of sexual crime.

**Headline descriptors of sexual offenders.** Within the 2012 sample of articles about sexual crime, headline descriptors of perpetrators formed the basis of the main differences between tabloids and broadsheets on this topic (word clouds ‘a’ and ‘b’; Figure 1). Tabloids were found to utilise more offensive headline descriptors about sexual offenders (e.g. “beast”, “paedo”, “monster”) than broadsheets (e.g. “man”, “rapist”). This trend was broadly replicated within the 2013 headline descriptor data (word clouds ‘c’ and ‘d’; Figure 1).

As word clouds present qualitative data, it was not possible to conduct statistical analyses on these differences. However, they may indicate crucial differences in the ways in which tabloids and broadsheets discuss sexual crime. As such, further analysis of headline descriptors requires further empirical investigation.

[Insert Figure 1 Here]

**Discussion**

A post-Savile increase of 295% in the raw frequency of sexual crime reporting by the national British press was observed in the sample of articles collected twelve months after the re-emergence of the allegations made against Jimmy Savile. This outcome alone may be indicative of the importance of availability processes in guiding social discussions about sexual crime. That is, the emergence of the high-profile (‘available’) Jimmy Savile scandal appears to have contributed to a significant increase in the coverage of sexual crime in a general sense. In accordance to McCombs and Shaw’s (1972) agenda-setting theory, this has
the potential to contribute to increased public concern about sexual crime, as well as exaggerated estimates of its prevalence. This effect may be compounded still further when considering the representations of sexual crime prevalence within the context of other crime categories. After the re-emergence of the Jimmy Savile allegations, sexual crime was over-represented within the collected sample of crime articles by twenty-two-and-a-half-times (comparative to CSEW statistics; Office for National Statistics, 2014). This is more than double the ten-times over-representation that was observed just twelve months earlier (Harper & Hogue, 2015a).

With regards the linguistic characteristics of sexual crime articles, few significant differences were found in the post-Savile article sample. No significant differences were observed year-on-year within the tabloid samples of articles about sexual crime, with the only difference in broadsheet reporting being a reduction in the level of negative emotional words within articles in 2013 compared with 2012. However, the net result of the general trend observed led to the finding of a significant reduction in negative affect and anger within press articles about sexual crime when both tabloids’ and broadsheets’ data were analysed together. Further, due to the large number of articles analysed, the small $p$ values and effect sizes, these significant results may reflect Type I errors. That is, although statistically significant, these changes in negativity and anger-related language may be of little practical significance.

As with data from the 2012 sample, headline descriptors of those found guilty of sexual crimes were the most apparent difference between tabloids and broadsheets with regards to reporting styles, with tabloids being more overtly hostile (e.g., “beast”, “monster”) than broadsheets (e.g. “rapist”, “abuser”).
Study 2

As mentioned previously, recent research has examined the effects of labels on judgements of different groups related to sexual offenders (Harris & Socia, 2014; Imhoff, 2015). The significantly more negative responses to these labels than to more sanitised descriptions (e.g., “people who have committed crimes of a sexual nature”, or “persons with a sexual interest in prepubescent children”) may be indicative of automatic emotional responses to these terms (Harper, Hogue, & Bartels, under review; King & Roberts, 2015), and thus may be driven by the affect heuristic (Slovic & Peters, 2006).

With further support from the word cloud analyses in Study 1, we propose that such responses may be driven, at least in part, by the particular ways in which different media outlets describe sexual offenders. By using dehumanising language such as “beast” and “monster” in headlines about sexual crime, readers of such stories may begin to link these concepts together, forming an implicit association between these dehumanised labels and the act of sexual offending. According to dual-process models of attitudes, these kinds of associations form the basis of our automatic responses (e.g., Gawronski & Bodenhausen, 2006). As such, in Study 2 we set out to examine potential differences in responses to sexual offenders between the readers of different newspaper publication types using a cross-sectional experimental survey design. In line with earlier preliminary work in this area (Hogue & Smith, 2008), the following hypotheses were made:

1. Tabloid readers would express more negative attitudes towards sexual offenders than broadsheet readers

2. More negative attitudes towards sexual offenders would be accompanied by negative perceptions of this offending population, exemplified through the endorsement of punitive sentencing policies, stereotype-based evaluations, and higher perceptions of sexual offender risk.
Methods

**Participants.** The sample was comprised of 528 community-based volunteers (139 males, 347 females, 42 did not declare gender; $M_{\text{age}} = 32.17$ years, $SD = 12.06$ years), and were recruited using email- and social media-driven invitations. Email invitations were driven using institutional and professional distribution lists, while social media invitations were delivered using the authors’ own Facebook and Twitter feeds. As such, opportunity and snowball sampling procedures were used, and participants were self-selecting volunteers.

**Materials.**

*Demographic Questionnaire.* Participants were asked to provide information about their gender, age, highest obtained qualification, preferred newspaper type, and experience of sexual crime. In relation to our key demographic variable of ‘preferred newspaper type’, we asked participants to provide information about the type of newspaper (e.g., tabloids, broadsheets, both, or none) that they read on a regular basis. Participants were informed that ‘regular’ meant at least once per week, and were instructed to include online editions in their answer as well as printed newspaper readership.

*Attitudes to Sex Offenders Scale (ATS-21).* The Attitudes to Sex Offenders Scale (ATS; Hogue, 1993) is a 36-item self-report questionnaire, adapted from Melvin, Gramling and Gardner’s (1985) ‘Attitudes to Prisoners Scale’ by substituting the word ”prisoners” for “sex offenders”. Each item constitutes a statement (e.g., ”I think I would like associating with many sex offenders”), with respondents rating their agreement using a 5-point Likert scale, scored from 0 (strongly disagree) to 4 (strongly agree). Hogue (2015) has revalidated the
ATS, and produced a shortened 21-item version (ATS-21), which was used in this study. The ATS-21 correlates extremely highly with the original 36-item ATS \((r = .98, p < .001)\), and includes 11 reverse-scored items. Three factors underlie the ATS-21 (‘Trust’, ‘Intent’, and ‘Social Distance’), which has a potential scoring range of 0–84. High scores indicate more positive attitudes. The measure demonstrated excellent internal consistency in the present study \((\alpha = .94)\), as did each of its subscales (‘Trust’ \(\alpha = .84\), ‘Intent’ \(\alpha = .87\), and ‘Social Distance’ \(\alpha = .83\)).

**Perceptions of Sex Offenders Scale (PSO).** The Perceptions of Sex Offenders Scale (PSO; Harper & Hogue, 2015b) is a 20-item scale (six reverse-scored) adapted from the Community Attitudes Toward Sex Offenders Scale (CATSO; Church, Wakeman, Miller, Clements & Sun, 2008) following criticisms about the CATSO’s reliability and validity. It is comprised of three factors that examine respondents’ perceptions about ‘Sentencing and Management’, ‘Stereotype Endorsement’, and the ‘Risk Perception’ in relation to sexual offenders. Respondents are asked to rate their level of agreement with each item (as with the ATS, these items are formed as statements; e.g., “Convicted sex offenders should never be released from prison”) on a 6-point Likert scale, scored from 0 (strongly disagree) to 5 (strongly agree). The PSO has a potential scoring range of 0-100, with high scores indicating the endorsement of negative, hostile and stereotype-driven perceptions of sexual offenders. The PSO demonstrated excellent internal consistency in the present study \((\alpha = .92)\), as did each of its subscales (‘Sentencing and Management’ \(\alpha = .93\), ‘Stereotype Endorsement’ \(\alpha = .84\), and ‘Risk Perception’ \(\alpha = .80\)).

**Procedure.** Participants responded to email- and social media-driven invitations to partake in the study survey, which was hosted by Qualtrics. Participants were provided with
information about the study and the tasks involved and, if happy to continue, moved on to the data collection phase. This phase involved participants systematically completing the self-report measures set out above, with each measure being presenting on a separate page. Upon completion, participants were thanked and fully debriefed. This procedure followed BPS ethical guidelines, and was approved by a departmental ethical review committee prior to data collection.

Results
Responses to the ATS-21 and PSO measures were compared for four newspaper readership groups: (a) tabloid readers ($n = 59$), (b) broadsheet readers ($n = 156$), (c) readers of both tabloids and broadsheets ($n = 105$), and (d) those who do not read any newspapers on a regular basis ($n = 201$). The combined sample size ($n = 521$) is lower than that reported above due to seven participants not completing this ‘Newspaper Readership’ demographic question. A full overview of these results is provided in Table 5. As our hypotheses were directional in nature, all significance testing in the sections that follow uses a $p$ value for a one-tailed test.

**ATS-21 findings.** A one-way multivariate analysis of covariance (MANCOVA) was conducted in order to examine the effect of Newspaper Readership (Tabloids vs. Broadsheets vs. Both vs. None) on scores on each of the ATS-21 subscales. Owing to theoretical links between educational attainment and newspaper readership, and a body of empirical findings suggesting that education is the only reliable demographic variable to influence attitudes towards sexual offenders (Harper, Hogue, & Bartels, *under review*), the Education Level demographic variable was dummy coded and included in the model as a covariate ($p < .001$). A significant MANCOVA effect was obtained ($\text{Wilk}'s \lambda = .971$; $F(9, 1545) = 1.70$, $p = .042$, $\eta^2_p = 0.01$).
There was a significant (significant for our purposes, as we tested a one-tailed hypothesis) main effect of Newspaper Readership on the ‘Trust’ subscale of the ATS-21 ($F(3, 520) = 2.51, p = .029, \eta^2_p = 0.01$). This was attributable to a lower (more negative) scores among exclusive tabloid readers than broadsheet readers ($p = .043$). In relation to judgements of sexual offenders’ levels of ‘Intent’, there was no effect of Newspaper Readership ($F(3, 520) = 1.10, p = .175$). There was, however, a significant effect of Newspaper Readership in relation to ‘Social Distance’ judgements ($F(3, 520) = 3.37, p = .009, \eta^2_p = 0.02$). Post-hoc pairwise comparisons (with Bonferroni correction) found this difference to again be attributable to more negative views being expressed by exclusive tabloid readers when compared to responses from exclusive broadsheet readers ($p = .011$). In relation to each ATS-21 subscale, those in the ‘both’ and ‘none’ readership groups did not differ from, and scored in between, the two exclusive readership groups.

[Insert Table 5 Here]

**PSO findings.** A one-way MANCOVA was conducted in order to examine the effect of Newspaper Readership on PSO subscale scores. Owing to the large correlation between ATS-21 and PSO scores that have been highlighted in previous research (Harper & Hogue, 2015b), the ATS-21 was included in this analysis as a covariate in order to control for the influence of generalised attitudes towards sexual offenders on PSO outcome judgements ($p < .001$). A significant MANCOVA effect was obtained (Wilk’s $\lambda = .961$; $F(9, 1530) = 2.26, p = .008, \eta^2_p = 0.01$).

For the ‘Sentencing and Management’ subscale, a significant main effect of Newspaper Readership was found ($F(3, 515) = 3.13, p = .011, \eta^2_p = 0.02$). Planned post-hoc comparisons (with Bonferroni correction) found that this effect was attributable to a significant difference
between exclusive tabloid and broadsheet readers ($p = .012$). There were also significant effects of Newspaper readership in relation to the ‘Stereotype Endorsement’ ($F(3, 515) = 2.20, p = .044, \eta^2_p = 0.01$) and ‘Risk Perception’ subscales ($F(3, 515) = 2.35, p = .036, \eta^2_p = 0.01$). The trends in the data for these latter subscales were the same as those found in relation to ‘Sentencing and Management’ (Table 5).

**Discussion**

The results from Study 2 indicate that, within the present sample, Newspaper Readership potentially acted as a moderator of attitudes and perceptions about sexual offenders. Tabloid readers expressed more negative attitudes toward sexual offenders than broadsheet readers, as measured by the ATS-21’s specific domains of ‘Trust’, ‘Intent’, and ‘Social Distance’.

Further, the combined reading of tabloids and broadsheets, or the absence of engaging with either tabloids or broadsheets, appeared to mitigate the effects of reading either type of newspaper exclusively, with these ‘mixed’ and ‘none’ groups not differing, and scoring directly between, the ‘exclusive’ readership groups in their ATS-21 scores.

These attitude-related differences were even more apparent when considering participants’ perceptions of sexual offenders – particularly in relation to sentencing preferences. Tabloid readers expressed sentiments that indicated preferences for more punitive sentences and restrictions on civil liberties compared to broadsheet readers. These effects were present even when controlling for more general attitudes towards sexual offenders. Again, participants who reported reading a mixture of tabloids and broadsheets, or no newspapers at all, scored directly between these two ‘exclusive’ readership groups on the PSO, potentially indicating the effect of engaging with tabloids or broadsheets exclusively. Further, tabloid readers expressed higher risk perceptions than broadsheet readers, and
endorsed stereotypes about sexual offenders to a greater extent. These findings are broadly consistent with the hypotheses made at the beginning of Study 2.

**General Discussion**

The findings from the two studies presented in this paper are indicative of a national British press and its ability to both inform and enhance the attitudes and perceptions about sexual crime by inducing heuristic-based decision-making.

**Discussion of Key Findings**

The general direction of the changes in the linguistic content of articles about sexual crime following the re-emergence of the Jimmy Savile allegations was unexpected, with the observed trend being that these articles have become less negative and angry. However, these changes may be indicative of a general softening of press coverage of crime following the 2012 Leveson Inquiry into press ethics (see Petley, 2012). That is, reductions in negativity about sexual crime may be more associated with changes in press standards than with the societal sentiment around sexual crime. Nevertheless, with changes in the linguistics of articles about sexual crime being predominantly attributable to broadsheet publications, it can be inferred that the vast majority of newspaper readers have not seen any significant linguistic changes in the news articles about sexual crime that they read, with approximately 80% of newspaper readers engaging with tabloids (Press Gazette, 2012). What readers have witnessed, however, is a marked increase in the number of sexual crime stories being printed by the national press (both in terms of raw frequencies, and relative to stories about other crime types). When analysed in conjunction with recent UK legislative changes (e.g., Harper & Hogue, 2014), these findings are broadly supportive of an availability cascade model of sexual crime discourse (Kuran & Sunstein, 1999).
The attitude-related data in Study 2 produced a pattern that was largely as expected, with tabloid readers expressing more negative attitudes towards sexual offenders than broadsheet readers, rating them as more risky, and preferring more punitive punishments. Participants who read either a combination of tabloids and broadsheets, or no newspapers at all, scored directly between these two ‘exclusive’ readership groups. It is important to note that these group differences do not necessarily indicate direct causation, in the sense that it cannot be said that exposure to tabloids (or broadsheets) directly leads to a hardening (or softening) of attitudes. However, one recent unpublished dissertation did find that presenting differently valenced media stories about sexual crime (in a ‘tabloid’ vs. ‘broadsheet’ style) did bring about changes in perceptions of sexual offenders, as measured by the PSO. This effect held when controlling to pre-existing attitudes (as measured by the ATS-21), meaning that these differences can be reliably attributed to the presentation of the experimental stimuli (Jones, 2015).

One social psychological framework that can be used to understand these attitudinal data is moral disengagement theory (MDT; Bandura, Barabaranelli, Caprara & Patorelli, 1996). MDT identifies a number of mechanisms that are employed by people in order to overcome self-censure and rationalise immoral, inhumane, or otherwise unethical actions. One of the mechanisms that has received the most empirical attention is dehumanisation, which involves attributing the characteristics of non-human animals to humans, and thus removes their sense of personhood. It is argued that this process is in operation within the headlines of tabloid articles about sexual crime in a more profound way than in the headlines of broadsheet stories. Terms such as ‘beast’, ‘monster’, and ‘evil’ all ascribe animalistic and demonic characteristics to the perpetrators of sexual crimes. A small number of studies have specifically sought to examine the role of dehumanisation in judgements about sexual offenders, with these studies typically reporting a link between dehumanisation and punitive
responses (e.g., Bastian, Denson, & Haslam, 2013; Viki, Fullerton, Raggett, Tait, & Wiltshire, 2012).

This framework provides a contextual explanation to the results reported by Harris and Socia (2014) and Imhoff (2015), who found that using the “sex offender” and “paedophile” labels led to more punitive responses than more neutral alternatives. That is, by using labels such as “paedo” and “sex offender” alongside terms such as “monster” and “beast”, tabloids can be said to be linking the ‘paedophile’ label with strong visceral responses. In comparison, broadsheets tend to refrain from using such inflammatory headline descriptors, with the result being less negative responses to these labels, which are used in the ATS-21 and PSO measures.

Limitations and Future Directions

The impact of such a marked increase in the frequency of sexual crime articles in the national British press has not been directly explored in this paper. While it may be suggested that the proliferation of sexual crime news in the aftermath of the Jimmy Savile scandal has contributed to increases in perceptions of sexual crime prevalence or support for punitive sentencing policies, the data at hand cannot empirically support such claims. Longitudinal studies could be used in order investigate this potential availability cascade.

The discussion in Study 2 proposed a moral disengagement model underpinning punitive responses to sexual offending. This proposal requires empirical examination. Studies could include the manipulation of newspaper content, such as headlines, images, and publication banners, in order to understand the key aspects of stories that drive the activation of moral disengagement mechanisms. These studies should also seek to establish the nature of moral disengagement processes, and incorporate both explicit (i.e., self-report) and indirect (e.g., tests of implicit cognitions) measurement procedures. Further qualitative analyses of
media stories may also uncover whether useful other MDT mechanisms (e.g., advantageous comparison and moral justification) are present in some publication types, but not others.

It is important to note that a sizeable proportion of our sample in Study 2 stated that they did not read any form of newspaper. While we asked participants to include online news websites as well as printed newspapers in their responses to this question, we cannot accurately state that these participants have no engagement with news media about sexual crime. Indeed, recent analyses of young people’s consumption of the news indicate a shift to more online and socially-driven patterns of news seeking and political engagement (e.g., Xenos, Vromen, & Loader, 2014). Thus, the role of non-traditional forms of news media consumption offers an exciting and potentially fruitful area of research in the measurement and conceptualisation of societal responses to sexual crime.

Conclusion
This paper presented two studies that suggest: (1) high-profile cases of sexual crime can have a profound effect on wider reporting trends, and (2) the emotionality of news reports may be influential in mediating attitudinal and policy responses about sexual offenders. These findings are consistent with the view that press coverage of sexual crime may contribute to a reliance on heuristic-based decision-making about this issue. While this paper offers a first attempt at conceptualising these ideas, further empirical work is required in order to crystallise the concepts that we have introduced. If future research confirms such links between press content and responses to sexual crime, this could indicate that sexual offending is a topic that requires an increased academic presence within the public sphere. Thus, it is hoped that further research can support the need for greater engagement between academia, news organisations, and policymakers in relation the issue of sexual crime, such as to
promote evidence-based and progressive social policies to tackle this growing public health problem.
References


Table 1

*Database search terms and offence eligibility*

<table>
<thead>
<tr>
<th>Category</th>
<th>Search terms</th>
<th>Eligible offences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual crime</td>
<td>“guilty” OR “convicted” AND “rape” OR “molest*” OR “sexual assault”</td>
<td>rape; sexual assault; child molestation</td>
</tr>
<tr>
<td></td>
<td>“guilty” OR “convicted” AND “murder*” OR “kill*” OR “attack*”</td>
<td>murder; manslaughter; actual bodily harm (ABH); grievous bodily harm (GBH)</td>
</tr>
<tr>
<td>Violent crime</td>
<td>“murder*” OR “kill*” OR “attack*”</td>
<td>theft; burglary; robbery</td>
</tr>
<tr>
<td>Acquisitive crime</td>
<td>“guilty” OR “convicted” AND “burgl*” OR “theft” OR “robb*”</td>
<td></td>
</tr>
<tr>
<td>Newspaper</td>
<td>Print circulation</td>
<td>Market share (%)</td>
</tr>
<tr>
<td>-----------------</td>
<td>-------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>The Sun</td>
<td>2,583,552</td>
<td>32.31</td>
</tr>
<tr>
<td>Daily Mail</td>
<td>1,939,635</td>
<td>24.26</td>
</tr>
<tr>
<td>Daily Mirror</td>
<td>1,081,330</td>
<td>13.52</td>
</tr>
<tr>
<td>Daily Express</td>
<td>602,482</td>
<td>7.54</td>
</tr>
<tr>
<td>Daily Star</td>
<td>602,296</td>
<td>7.53</td>
</tr>
<tr>
<td>The Daily Telegraph</td>
<td>574,674</td>
<td>7.19</td>
</tr>
<tr>
<td>The Times</td>
<td>400,120</td>
<td>5.00</td>
</tr>
<tr>
<td>The Guardian</td>
<td>211,511</td>
<td>2.65</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7,995,600</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: Market share refers to data collected in July 2012, at the beginning of the initial data collection.
<table>
<thead>
<tr>
<th></th>
<th>Study N</th>
<th>Study %</th>
<th>Study %</th>
<th>Actual N</th>
<th>Actual %</th>
<th>Actual %</th>
<th>Projected N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual crime</td>
<td>89</td>
<td>262</td>
<td>20%</td>
<td>45%</td>
<td>52,178</td>
<td>60,894</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2%</td>
<td>2%</td>
<td>562,573</td>
</tr>
<tr>
<td>Violent crime</td>
<td>282</td>
<td>255</td>
<td>65%</td>
<td>44%</td>
<td>747,448</td>
<td>614,464</td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>26%</td>
<td>21%</td>
<td>1,828,364</td>
</tr>
<tr>
<td>Acquisitive crime</td>
<td>60</td>
<td>66</td>
<td>15%</td>
<td>11%</td>
<td>2,013,241</td>
<td>2,308,877</td>
<td>72%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>77%</td>
<td>77%</td>
<td>421,930</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>328,266</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: ‘Projected N’ represents what CSEW figures would be, based upon press representations of crime prevalence. ‘Actual N’ represents data from the CSEW. ‘Actual %’ reflects the percentage of total crime when considering only considering the target crime types.
Table 4

Linguistic analyses of collected articles

<table>
<thead>
<tr>
<th></th>
<th>Negative emotion</th>
<th>Positive emotion</th>
<th>Anger</th>
<th>Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual crime</td>
<td>6.15</td>
<td>5.50*</td>
<td>1.05</td>
<td>1.07</td>
</tr>
<tr>
<td>Violent crime</td>
<td>5.66</td>
<td>5.22*</td>
<td>1.27</td>
<td>1.06*</td>
</tr>
<tr>
<td>Acquisitive crime</td>
<td>2.94</td>
<td>2.93</td>
<td>1.41</td>
<td>1.56</td>
</tr>
<tr>
<td>Sexual crime only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tabloid</td>
<td>6.30</td>
<td>5.57</td>
<td>.95</td>
<td>1.04</td>
</tr>
<tr>
<td>Broadsheets</td>
<td>5.70</td>
<td>4.71*</td>
<td>1.34</td>
<td>1.13</td>
</tr>
</tbody>
</table>

Notes: Data represent percentage of words pertaining to each category within articles. Figures with an asterisk indicate a significant year-on-year change ($p < .05$)
<table>
<thead>
<tr>
<th>Readership Category</th>
<th>Total</th>
<th>T</th>
<th>I</th>
<th>SD</th>
<th>Total</th>
<th>SM</th>
<th>SE</th>
<th>RP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tabloids</td>
<td>41.02</td>
<td>16.93</td>
<td>24.88</td>
<td>20.21</td>
<td>48.41</td>
<td>17.96</td>
<td>8.45</td>
<td>16.00</td>
</tr>
<tr>
<td></td>
<td>(1.89)</td>
<td>(0.73)</td>
<td>(0.69)</td>
<td>(0.65)</td>
<td>(1.17)</td>
<td>(0.84)</td>
<td>(0.52)</td>
<td>(0.44)</td>
</tr>
<tr>
<td>Broadsheets</td>
<td>46.92</td>
<td>19.08</td>
<td>26.36</td>
<td>22.48</td>
<td>37.78</td>
<td>15.08</td>
<td>7.37</td>
<td>15.33</td>
</tr>
<tr>
<td></td>
<td>(1.16)</td>
<td>(0.45)</td>
<td>(0.42)</td>
<td>(0.40)</td>
<td>(0.71)</td>
<td>(0.51)</td>
<td>(0.32)</td>
<td>(0.27)</td>
</tr>
<tr>
<td>Both</td>
<td>43.99</td>
<td>17.78</td>
<td>25.89</td>
<td>21.32</td>
<td>40.40</td>
<td>16.57</td>
<td>7.40</td>
<td>16.43</td>
</tr>
<tr>
<td></td>
<td>(1.39)</td>
<td>(0.54)</td>
<td>(0.51)</td>
<td>(0.48)</td>
<td>(0.86)</td>
<td>(0.62)</td>
<td>(0.39)</td>
<td>(0.33)</td>
</tr>
<tr>
<td>Neither</td>
<td>44.99</td>
<td>17.97</td>
<td>26.01</td>
<td>21.96</td>
<td>40.21</td>
<td>16.21</td>
<td>8.23</td>
<td>15.77</td>
</tr>
<tr>
<td></td>
<td>(1.01)</td>
<td>(0.39)</td>
<td>(0.37)</td>
<td>(0.35)</td>
<td>(0.63)</td>
<td>(0.45)</td>
<td>(0.28)</td>
<td>(0.24)</td>
</tr>
</tbody>
</table>

Notes: ATS-21: T = ‘Trust’; I = ‘Intent’; SD = ‘Social Distance’; PSO: SM = ‘Sentencing and Management’; SE = ‘Stereotype Endorsement’; RP = ‘Risk Perception’. Figures represent estimated marginal means (and standard errors) corrected for participant education level (for the ATS-21), or ATS-21 scores (for the PSO).
Figure 1
Word clouds for headline descriptors of sex offenders in tabloids and broadsheets

Note: Word clouds for (a) tabloid descriptors in 2012, (b) broadsheet descriptors in 2012, (c) tabloid descriptors in 2013, and (d) broadsheet descriptors in 2013.