Chicken Tumours and a Fishy Revenge: Evidence for Emotional Content

Bias in the Cumulative Recall of Urban Legends

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Abstract

This study used urban legends to examine the effects of a cognitive bias for content which evokes higher levels of emotion on cumulative recall. As with previous research into content biases, a linear transmission chain design was used. One-hundred and twenty participants, aged 16-52, were asked to read and then recall urban legends that provoked both high levels and low levels of emotion and were both positively and negatively valenced. The product of this recall was presented to the next participant in a chain of three generations. A significant effect of emotion level on transmission fidelity was found with high emotion legends being recalled with significantly greater accuracy than low emotion legends. The emotional valence of a legend was found not to have any effect on cumulative recall; thus emotional biases in recall go beyond disgust and can incorporate other emotions such as amusement, interest and surprise. This study is the first to examine an emotion bias in cultural transmission as a general phenomenon without focusing on the emotion of disgust.
Introduction

Recently researchers have convincingly argued that the ability to acquire and transmit knowledge through social learning has been a powerful selective force in the evolution of human cognition (Hermann, Call, Hernández-Lloreda, Hare, & Tomasello, 2007; van Schaik & Burkart, 2011; Richerson & Boyd, 2005). Reciprocally, it has been suggested that the ways in which information is processed and stored in the brain have a strong influence over the selection and modification of cultural traits that get passed on from person to person (Claidière & Sperber, 2007; Mesoudi & Whiten, 2008; Sperber, 1996). The positive influence of emotional arousal on the encoding and retrieval of memories in individual memory tests is well established (LaBar & Cabeza, 2006) but how this mnemonic advantage may translate to a content bias for emotional content in cultural transmission has received relatively little attention.

With regards to the effects of emotion on cultural transmission, previous research has focused on its influence on people’s willingness to pass a story on (in Eriksson and Coultas’ [2014] three phases of transmission, the stage defined by an individual’s willingness to pass cultural information on is the ‘choose-to-transmit’ phase. The other two phases are ‘choose-to-receive’, based on an individual’s willingness to receive cultural information and ‘encode-and-retrieve’, based on an individual’s ability to encode the information to memory and later retrieve it). Heath, Bell and Sternberg (2001) propose that cultural items such as narratives undergo ‘emotional selection’, whereby concepts that trigger a stronger emotional response are positively selected for. To test this hypothesis they conducted two
studies using urban legends, focusing on the emotion of disgust. In their first study Heath et al. (2001) asked participants to read urban legends and to rate them for emotional, informational and story characteristics such as plot, characters, morals, practical information and plausibility, as well as their willingness to pass the story along to others. It was found that, while informational characteristics such as plausibility, were important in the likelihood of passing on a legend, legends were also more likely to be passed on if they elicited a greater level of disgust. In a second study, when the number and level of disgust evoking motifs in a legend were manipulated, participants preferred, and were more likely to pass on, legends which produced the highest level of disgust despite the fact that these stories were also less plausible and featured higher mean levels of other negative emotions such as anger and sadness. Heath et al. (2001) also found that urban legends which featured a greater number of disgust evoking motifs were more widely distributed on urban legend websites. They argue that urban legends are transmitted and retained in the social environment due to a positive selection for narratives that evoke stronger levels of emotion in general.

Another study by Peters, Kashima and Clark (2009) examined the effect of emotionality on the dissemination of social information. Participants were asked to read anecdotes then complete a questionnaire on how likely they would be to tell this anecdote to an unspecified audience, an audience of friends or an audience of strangers. They found that anecdotes which evoked medium to high levels of emotion were more likely to be passed on than anecdotes which evoked lower levels of emotion. Participants were also significantly more willing to pass
on anecdotes which evoked interest, disgust and happiness than sadness, fear and contempt to all three types of audience.

Other research suggests that it is the features of emotions rather than individual emotions themselves which enhances transmission. Berger and Milkman (2010) conducted an empirical analysis of 6,956 articles published over three months on the New York Times website. When controlling for external drivers of attention (position on the website etc.) and the emotions of surprise and interest, they found that articles which aroused emotions characterised by high arousal, such as anger, anxiety and awe were more likely to be forwarded via email than articles which evoked emotions characterised by low arousal, such as sadness. A survey of New York Times readers about their most recently shared article supported this finding (Berger & Milkman, 2010). No relation was found between disgust and how likely an article was to be shared but they suggest that this result is likely to be due to few of the news articles eliciting this emotion. Berger (2011) argues that this increased transmission is driven by the mobilising effect of an excitatory state and found a similar effect even when the arousal was incidental to the material being shared. Other studies have similarly found that increased emotional arousal increases the amount of sharing of information by participants (Christophe & Rimé, 1997; Luminet, Bouts, Delie & Manstead, 2000) but have not looked at the specific emotions involved.

Cultural transmission, however, does not just rely on people’s willingness to pass a story on; in oral transmission at least, they must also encode and recall it. The cumulative effects of recall will have a particular influence over cultural transmission as only those elements which are preserved will be passed on to the
next generation. Eriksson and Coultas (2014) examined the role of cumulative recall in transmission by expanding on Heath at al. (2001). They introduced the concept of three distinct phases of cultural transmission: ‘choose-to-receive’, ‘encode-and-retrieve’ and ‘choose-to-transmit’. In a number of experiments using urban legends, they demonstrated that content evoking a high degree of disgust had a transmission advantage over content evoking a lower degree of disgust in all three phases. However, when looking at individual differences in willingness to pass along stories they found that positively valenced emotions (amusement, surprise) received higher ratings than negatively valenced emotions (anger, sadness, fear, disgust), suggesting that other emotions, particularly positively valenced ones, may be selected for to an even greater degree than disgust, at least in the ‘choose-to-transmit’ phase. While this study did demonstrate an advantage in cumulative recall for content which evoked higher levels of emotion (in their ‘encode-and-retrieve’ phase), like Heath et al (2001) it focused on the emotion of disgust.

The Present Research

As in Heath et al. (2001) and Eriksson and Coultas (2014), real urban legends were used as a means to investigate emotional content biases. The study focused on urban legends because they represent culturally successful narratives from the real world and are also practical for use in experiments because they are relatively short and self-contained. Successful legends often share a number of features, such as a suspenseful or humorous narrative, which contains surprising information or a twist, a warning or moral message that is either explicit or
implied, and they are often attributed to a “friend of a friend” (Brunvand, 2000; Fox Tree & Weldon, 2007).

In contrast to the studies by Heath et al. (2001) and Eriksson and Coultas (2014), emotional content bias is investigated as a general phenomenon, rather than focusing on the single emotion of disgust, and the effects of emotion level on cumulative recall (the ‘encode-and-retrieve’ phase of transmission) are examined rather than either just the ‘choose-to-transmit’ phase or all three phases of transmission. Cumulative recall was chosen for examination as this can produce different results from individual recall, for example studies examining stereotype consistency bias have found that stereotype inconsistent (SI) information is recalled better than stereotype consistency (SC) bias at the individual level (Dijksterhuisand & van Knippenberg, 1995; Macrae, Hewstone, & Griffiths, 1993) but in cumulative recall stereotype consistent information is recalled better (Allport & Postman, 1947; Bangerter, 2000). Kashima (2000) found that, when remembering plot-relevant details, participants in earlier positions in a transmission chain recalled SI information better than SC information, however, SC information was retained better than SI information towards the end of the chain.

A transmission chain design is used, in which some form of information is passed from one participant to another in a linear ‘chain’ (as per the children’s game ‘Chinese Whispers’/’Broken Telephone’). Transmission chain experiments are uniquely effective in uncovering content biases in transmission (Mesoudi et al, 2006) and have been used successfully to investigate cognitive content biases, such as minimally counter-intuitive (MCI) bias (Barrett & Nyhof, 2001), a
hierarchical bias (Mesoudi & Whiten, 2004), a stereotype consistency bias (Kashima, 2000) and a social information bias (Mesoudi, Whiten & Dunbar, 2006) as well as multiple biases occurring together (Stubbersfield, Tehrani & Flynn, 2015). In order to select appropriate material, seventeen urban legends were selected from the Urban Legends Reference Pages (www.snopes.com). The extent to which the legends evoked emotion was then rated by participants on a 7-point scale. Four legends were selected, two which scored high for evoking emotion and two which scored low. These legends evoked a range of emotions including disgust and amusement. This experiment aimed to test the hypothesis that emotional content bias is a general phenomenon and that legends that evoke higher levels of emotion will be recalled with higher fidelity along a transmission chain than legends that evoke lower levels of emotion, regardless of the emotion evoked. Individual recall-based experiments have shown a recall advantage for content which evokes high emotion across both positive and negative valences (LaBar & Cabeza, 2006) while transmission-based experiments have found differences between positive and negative valence in certain circumstances (Eriksson & Coultas, 2014; Peters et al., 2009) so here the effect of valence of cumulative recall is also examined.

**Methods**

**Participants**

One-hundred and twenty participants (94 females) took part. Their ages ranged from 16 to 52 years with a mean age of 20.36 years (SD = 6.34). The
A majority (92%) were undergraduate students studying psychology, education or recruited through opportunity sampling. Others were prospective students and parents attending a Psychology Department Open Day; all participants under the age of 18 took part with their parents’ consent.

**Design**

A linear transmission chain design was used. Each individual legend was transmitted along ten chains of three participants or ‘generations’, totalling forty chains for all four legends. Three generations was judged to be an optimum chain length, capable of capturing long-term cumulative effects of cultural transmission but short enough to be practical in terms of participant recruitment and has been used successfully in previous research (Barrett & Nyhof, 2001; Nielsen, Cucchiaro & Mohamedally, 2012; Stubbersfield et al., 2015). The first participant in each chain received a selection of legends which were counterbalanced so no legend appeared in the same position more than another legend. The next participant was presented with the material that had been recalled by the previous participant and so on, along the chain.

**Material**

Before conducting the transmission chain study it was necessary to select appropriate legends. From a selection of seventeen original urban legends edited to match for word count and number of central propositions, two high emotion legends and two low emotion legends were selected. These legends are presented below:
1. Steroids in chicken cause ovarian cysts (low emotion)

A woman underwent an operation to remove an ovarian cyst but just a few months later she relapsed and was rushed to her gynaecologist. The gynaecologist asked her if she often ate chicken wings, when she said yes he explained that, today, chickens are injected with steroids to accelerate growth. These steroids can have a terrifying effect on the body and are most dangerous in the presence of female hormones. Exposure to these steroids can lead to women being more prone to the growth of cysts in her womb.

2. Woman has revenge on boyfriend with rotten fish in car (low emotion)

A woman caught her boyfriend with another woman and decided to get revenge. She cut open the passenger seat of his car and hid fish inside before neatly re-stitching along the seam. As the fish rotted his car was filled with a terrible smell that he couldn’t get rid of no matter what he did. He had no luck finding a new girlfriend because no woman would set foot in his car. He finally gave up and sold the car at a huge loss because of the horrible smell.

3. Woman eats a tumour in a chicken burger (high emotion)

A woman went into a takeaway and ordered a chicken burger but asked for it without mayonnaise. After leaving the restaurant she bit into the burger and discovered that there was mayonnaise in it after all, but she finished the burger anyway. Later that evening, she checked herself into the local hospital after falling violently ill with food poisoning. Her
stomach was pumped and the doctors discovered that the chicken in her
burger had contained a tumour and that the sauce wasn't mayonnaise, it
was pus from the tumour.

4. Man suffers from flatulence at dinner party hosted by his girlfriend’s
parents (high emotion)

A man was having dinner with his girlfriend’s parents when he was
suddenly gripped by terrible flatulence. He excused himself from the table
and went in search of a toilet, however, he couldn’t find one in time so
instead he farted through an open window out of the parent’s earshot.

Much relieved, he returned to the table and continued the meal. Later, he
asked his girlfriend how the night had gone, expecting a good response,
however, she replied “it was going fine until you farted through the
serving hatch!”

Table 1 gives further detail about the legends used, such as their valence
and the emotions they were said to evoke by participants. The legend selection
was informed by questionnaire ratings from 106 participants on scales relevant to
potential content biases such emotion, plausibility, survival information, social
information and gender stereotyped behaviour. The ratings from this questionnaire
allow for comparisons to be made between the legends in terms of content which
may influence their recall and transmission. The high emotion legends were rated
as evoking higher levels of emotion than the low emotion legends. Of the
seventeen legends originally rated, Tumour-HN received the highest rating for
emotion and Dinner-HP was ranked 4\textsuperscript{th}, Cyst-LN was ranked 12\textsuperscript{th} and Fish-LP was ranked 16\textsuperscript{th}.

In order to ensure that level of emotion was driving any differences in transmission of the legends, efforts were made to select legends that did not significantly vary on measures of potentially confounding content biases such as survival information, social information and gender stereotyped behaviour. The selected legends were successfully matched across the measures in most cases but there were some potentially confounding differences in content. Fish-LP and Dinner-HP both differed from Cyst-LN and Tumour-HN in survival information, social information and gender stereotypes but the effect of these differences were taken into account (see supplementary material for the mean differences between legends on these scores).

[Table 1 about here]

Procedure

Participants were asked to take part in a study regarding the cultural transmission of urban legends. Participants were individually presented with the experimental materials on a computer. They were asked to read the material and then, on a new page, type what they remembered of this material. No distracter task was performed and no time limit for recall was set. At no point during the procedure were participants told that the material had come from a previous participant or that their recall would be presented to another participant.

Coding
Following previous studies which used a linear transmission chain design (Bangerter, 2000; Kashima, 2000; Mesoudi, et al., 2006; Mesoudi & Whiten, 2004; Stubbersfield et al, 2015), a propositional analysis (Kintsch, 1974) was performed on each participant’s recall. This involves dividing the text into separate propositions. Only propositions central to the narrative were coded so as to avoid legends with more background details appearing to have poorer recall, as previous research has demonstrated that information relevant to the plot of a narrative is better recalled than background details (Kashima, 1997). This propositional analysis was used to calculate the percentage of original central propositions correctly recalled. Percentages were used instead of total number as the original texts varied between five and six central propositions. No significant difference in the percentage of central propositions recalled was found between legends with five central propositions and legends with six.

To assess coder reliability, an independent coder blind to the study hypothesis coded two chains of each legend (20% of all material). There was a significant correlation between the coding of the independent coder and the original coder ($r_{24} = .88, p < .001$).

Results

A mixed 3x4 analysis of variance (ANOVA) was conducted with generation as a within subjects variable and legend as a between groups variable. There was a significant main effect of generation on the percentage of central propositions recalled ($F_{2, 72} = 38.23, p < .001$). Planned contrasts revealed that recall quantity was significantly higher in generation 1 than generation 2 ($F_{1, 36} =$...
There was also a significant main effect of legend on the percentage of propositions recalled ($F_{3,36} = 22.87, p < .001$). A Games-Howell post hoc test revealed that Tumour-HN and Dinner-HP both had significantly higher recall than Fish-LP and Cyst-LN ($ps \leq .001$). No other significant results were found. Figure 1 shows the pattern of recall for each legend along the chains for each generation.

A second mixed 3x2 ANOVA was conducted with generation as a within subjects variable and degree of emotion evoked (high vs. low) as a between groups variable. This revealed a significant main effect of generation as before ($F_{2,76} = 33.17, p < .001$). Legends which evoked a higher degree of emotion showed a higher level of recall than legends which evoked a lower degree of emotion ($F_{1,38} = 56.97, p < .001$). A third mixed 3x2 ANOVA was conducted with generation as a within subjects variable and emotional valence (positive vs. negative) as a between groups variable but no significant main effect of emotional valence was found ($F_{1,38} = 1.12, p > .05$).

As some of the legends were not matched across potentially confounding content biases it is important to test for any effects this content may have had on recall. No significant correlations were found between the percentage of central propositions recalled and the social information score ($M = 3.84, SD = 1.67$) or the stereotype score ($M = 3.73, SD = 1.15$), both tests $p > .05$. However, a significant negative correlation was found between the percentage of central
propositions recalled and the survival information score ($r = -.35, n = 120, p < .01$). In order to test how much effect the survival information score had on the percentage of central propositions recalled, a multiple regression was run to predict percentage of central propositions recalled from emotion level and survival information score. The regression model significantly predicted recall ($F_{2,117} = 68.87, p < .01, R^2 = .54, \text{ adjusted } R^2 = .53$). Emotion level received the strongest weight in the model, explaining 41.6% of the unique variance compared to the survival information score which only predicted 2.79% of the unique variance. No significant age or gender effects were found.

**Discussion**

The results of this study show that the urban legends which evoked higher levels of emotion in general were recalled with greater accuracy across a linear transmission chain than urban legends which evoked lower levels of emotion. This is consistent with previous research, which has demonstrated a cognitive bias for content which evokes higher levels of emotion (Berger & Milkman, 2010; Christophe & Rimé, 1997; Luminet, Bouts, Delie & Manstead, 2000). Importantly, however the emotional valence of an urban legend, positive or negative, was found to have no significant effect on cumulative recall. This is consistent with individual recall experiments where emotional arousal was found to enhance encoding and retrieval across both positive and negative valence (LaBar & Cabeza, 2006). Previous studies have found that participants were more willing to pass on stories which were positively valenced than negatively valenced, with the possible exception of when it is negatively valenced due to disgusting content (Eriksson & Coultas, 2014; Peters et al., 2009). The
transmission chain design presented here revealed that positive valence lends no advantage in the encode-and-retrieve phase of transmission, perhaps explaining why negatively valenced legends are so pervasive in the cultural environment. Future research should examine the differing levels of arousal of specific emotions in cultural transmission. If negatively valenced content is more likely to arouse strong emotions it could have an advantage at the encode-and-retrieve phase of transmission. Future research should also focus on the effects of positive or negative valence in the chose-to-receive phase and focus on examining the consumption of negatively valenced material.

Much of the existing research into emotional content bias in cultural transmission has focused on disgust (e.g. Eriksson & Coutlas, 2014; Heath et al., 2001; Nichols, 2002). For example, Nichols (2002) found that 16th century etiquette norms which prohibited disgust evoking actions were more likely to survive in the social environment than other etiquette norms. Similarly, Heath et al. (2001) found that participants preferred, and were more likely to pass on, legends which produced the highest level of disgust even though these stories were also less plausible and featured higher mean levels of other negative emotions such as anger and sadness. Heath et al. (2001) also found that urban legends which featured a greater number of disgust evoking motifs were more widely distributed on urban legend websites. Disgust does make an interesting case study when examining the role of emotional content in the cultural transmission of narrative, largely because of the question: why would people choose to receive or transmit content which is negatively valenced? However, disgust is somewhat uniquely affective as an emotion. It arouses powerful...
behavioural responses and impacts on human society through our individual moral choices and public policy on issues such as health, justice, social exclusion and warfare (Curtis, 2011). This may make the findings of Nichols (2002) and Heath et al. (2001) more difficult to generalise to an overall bias for emotional content rather than a specific effect of disgust evoking content as it would be reasonable to expect disgust to be uniquely effective in cultural transmission compared to other emotions.

In this study, the emotion of disgust was shown to confer no particular advantage in transmission compared to other emotions at the encode-and-retrieve phase. The legend which featured disgusting content, Tumour-HN, was recalled with equal fidelity to an amusing legend, Dinner-HP, suggesting that the transmission fidelity was driven by the degree of emotion felt rather than the specific emotion evoked. This also suggests that disgust is not special in terms of cultural transmission and supports Heath et al.’s (2001) argument that emotional selection is a general bias. The emotions of interest and surprise were evoked by all the legends used in this study and in previous research they have been shown to grant a transmission advantage and increase the communicability of anecdotes (Peters et al., 2009). Both surprise and interest are unique in that they are fairly neutral in terms of valence but may add more to the effect of a narrative in terms of activation of the autonomic nervous system, a more surprising story would be more arousing and likely to be more memorable or transmissible (Berger, 2011; LaBar & Cabeza, 2006). The results of this study show no particular advantage to surprise or interest as the results were driven more by the degree of emotion evoked rather than specific emotions. Future research could examine how
different emotions combine: do neutrally valenced emotions like surprise bolster other emotions and increase their effectiveness?

Following previous research into emotional bias in cultural transmission (Eriksson & Coultas, 2014; Heath et al, 2001) but unlike previous research examining other biases in cultural transmission that has used original material (i.e. Mesoudi et al., 2006) this study used real urban legends. There are a number of benefits to using ‘real world’ material in such an experiment but this can come at the cost of full control over the features of the material. In this experiment efforts were made to control for any confounding variables in terms of content. As mentioned in the results section, survival information was found to be negatively correlated with recall. This contradicts previous research which has found an advantage for survival related information in recall (e.g. Nairne 2010; Nairne & Pandeirada, 2008; Stubbersfield et al, 2015). It is unclear why that would be the case here. The results of the regression show that the degree to which the legends were rated as containing survival information explained far less of the variance in the percentage of propositions recalled than the emotion level, suggesting that it is correct to attribute the variation in recall to the different levels of emotion.

The results suggest that in general terms, material which evokes greater levels of emotion will be more successful in cultural transmission due to an advantage in cumulative recall. It is expected that, for an urban legend to be successful over other urban legends in the social environment it must evoke a greater degree of emotion. This is supported by a content analysis of 254 urban legends, which found emotional content bias to be one of the most frequently coded biases, being found in the majority of legends, with all of the emotions
coded being characterised by high arousal (Stubbersfield, Tehrani & Flynn, under review). Emotional content is clearly a highly effective bias in the cultural transmission of urban legends.

While the aim of this study was to examine emotional content bias as a general phenomenon without focusing on a specific emotion, the range of emotions evoked by the urban legends used was still fairly narrow. The emotions are all characterised by high arousal for example. This is in part due to the use of urban legends as material as these narratives will tend to evoke more arousing emotions than some other narratives. Nevertheless, these results further support the argument that, urban legends provide a fruitful avenue for research into the effects of content biases on the cultural transmission and the evolution of narratives. Emotional content bias is clearly effective in transmission and research should look beyond the emotion of disgust to take into account other emotions and consider if the efficacy of the bias varies between emotions, the study presented here represents a significant step in that direction.
References


### Table 1. The legends used in this study with their respective emotion levels, valence, two most frequently evoked emotions and code names.

<table>
<thead>
<tr>
<th>Legend</th>
<th>Emotion</th>
<th>Valence</th>
<th>Emotions</th>
<th>Code Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level</td>
<td>(Mean Score)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Steroids in chicken cause ovarian cysts</td>
<td>Low (5.5)</td>
<td>Negative*</td>
<td>Interest and Surprise</td>
<td>Cyst-LN</td>
</tr>
<tr>
<td>2. Woman has revenge on boyfriend with rotten fish in car.</td>
<td>Low (5)</td>
<td>Positive</td>
<td>Amusement and Interest</td>
<td>Fish-LP</td>
</tr>
<tr>
<td>3. Woman eats a tumour in a chicken burger.</td>
<td>High (6.5)</td>
<td>Negative</td>
<td>Disgust and Interest</td>
<td>Tumour-HN</td>
</tr>
<tr>
<td>4. Man farts in front of girlfriend’s parents at a dinner party.</td>
<td>High (5.8)</td>
<td>Positive</td>
<td>Amusement and Surprise</td>
<td>Dinner-HP</td>
</tr>
</tbody>
</table>

* Although interest and surprise were the most frequently evoked emotions by this legend these can be positive or negative, it also evoked fear, concern and sadness and as such was designated negatively valenced.
Figure 1. Mean percentage of original central propositions recalled by each generation for each legend used in this study. Letter codes are used to indicate emotion level and valence (corresponding with codes used in the article), with H indicating 'high emotion', L indicating 'low emotion', P indicating positive valence and N indicating negative valence. Error bars show standard error.
Table showing the mean differences between the legends used in Chapter 4 (column – row).

<table>
<thead>
<tr>
<th></th>
<th>Cyst-LN (2)</th>
<th>Dinner-HP (3)</th>
<th>Fish-LP (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tumour-HN</td>
<td>E 1.00</td>
<td>E .70</td>
<td>E 1.50</td>
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<tr>
<td>(1) E</td>
<td>P .75</td>
<td>P 1.50</td>
<td>P .90</td>
</tr>
<tr>
<td></td>
<td>G -.75</td>
<td>G -2.30*</td>
<td>G -2.85*</td>
</tr>
<tr>
<td></td>
<td>S -.60</td>
<td>S -3.30*</td>
<td>S -3.85*</td>
</tr>
<tr>
<td></td>
<td>V -.85</td>
<td>V 2.25*</td>
<td>V 1.75*</td>
</tr>
<tr>
<td>2 E</td>
<td>E -.30</td>
<td>E .50</td>
<td></td>
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<td></td>
<td>P .75</td>
<td>P .15</td>
<td></td>
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<td></td>
<td>G -1.55*</td>
<td>G -2.10*</td>
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</tr>
<tr>
<td></td>
<td>S -2.70*</td>
<td>S -3.25*</td>
<td></td>
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<td></td>
<td>V 3.10*</td>
<td>V 2.60*</td>
<td></td>
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<tr>
<td>3</td>
<td></td>
<td>E .80</td>
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<td>S -.55</td>
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<tr>
<td></td>
<td></td>
<td>V -.50</td>
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</tr>
</tbody>
</table>

* Indicates legends are found is different subsets (p ≤ .05)

Key:

E = Emotion score
S = Social information score
P = Plausibility score
V = Survival information score
G = Gender stereotype score