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The hidden impact of conspiracy theories: Perceived and actual influence of theories surrounding the death of Princess Diana

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Abstract

The present research examined the perceived and actual impact of exposure to conspiracy theories surrounding the death of Princess Diana. Undergraduate students rated their agreement with a number of statements about Diana’s death. They also rated their classmates’ perceived agreement with the statements. From the same undergraduate population, a second group of students read some material containing popular conspiracy theories about Diana’s death. They then rated their own and others’ agreement with the same statements, as well as perceived retrospective attitudes (i.e., what they thought their own and others’ attitudes were before reading the material). Results revealed that while their estimates of others’ attitude change were accurate, participants underestimated the extent to which their own attitudes were influenced.

Keywords: attitude change or persuasion, conspiracy theories, self-other bias, third-person effect
The hidden impact of conspiracy theories: Perceived and actual influence of theories surrounding the death of Princess Diana

On Sunday, August 31st 1997, the death of Princess Diana shocked the world. Almost immediately after the event, people began to question the incidents surrounding the accident that killed her and her partner, Dodi Fayed. Was the limousine driver Henri Paul drunk and, if so, was his dangerous driving a contributory factor in the crash? Did the paparazzi chase the limousine into the Paris tunnel, forcing Henri Paul to drive too fast? Not surprisingly, people wanted to understand the factors that contributed to the death of their princess. However, in addition to plausible explanations for the crash, there soon emerged a series of less plausible accounts that fall under the banner of the popular term *conspiracy theories*. Generally, the conspiracy theories surrounding Diana’s death invoke ‘bigger’, more powerful, or more sinister explanations for the events than most likely occurred. For example, one theory implicates the British Secret Service in a plot to assassinate the princess. Another suggests that Diana staged her death so that she and Dodi Fayed could retreat into isolation (LondonNet, 2005).

Scholars characterize conspiracy theories as attempts to explain the ultimate cause of an event (usually a political or social event) as a secret plot by a covert alliance of powerful individuals or organizations, rather than as an overt activity or natural occurrence (e.g., McCauley & Jacques, 1979). Attempts to explain why people believe conspiracy theories have focused on people’s need to explain events that are beyond their control. In particular, some researchers view conspiracy theories as a response to ‘powerlessness’; in the face of increasingly vast and anonymous bureaucratic forces, conspiracy theories allow people to come to terms with the possibility that these underlying forces shape their future (e.g., Melley, 2002). Similarly, others view
conspiracy theories as a means for less powerful individuals to imagine themselves in possession of powerful, or secret information (e.g., Mason, 2002). The belief in conspiracy theories perhaps fulfils people’s need to explain uncontrollable situations (McCauley & Jaques, 1979).

The belief in conspiracy theories is often seen as foolish and illogical (e.g., Shermer, 1997; Melley, 2002; Willman, 2000), and indeed the term itself is somewhat dismissive or pejorative. Nonetheless, the popularity of conspiracy theories often grows with time and theories also become more elaborate over time (McHoskey, 1995). Conspiracy theories surround many other historical and social events such as the origins of A.I.D.S. (e.g., Simmons & Parsons, 2005; Parsons, Simmons, Shinhoster & Kilburn, 1999), and the assassination of President John F. Kennedy (e.g., McCauley & Jacques, 1979; McHoskey, 1995). The belief in conspiracy theories is also associated with psychological variables such as perceived power. In particular, the more influence African American people believe themselves to have over political processes, the less likely they are to believe conspiracy theories against African Americans (Parsons et al., 1999). Belief in conspiracy theories among African Americans has also been linked to system blame or perceived societal prejudice against them (Crocker, Luhtanen, Broadnax & Blain, 1999). It has also been linked generally to lack of trust (Goertzel, 1994). Further, people who believe one conspiracy theory are more likely to believe in others (Goertzel, 1994). Given the popularity of conspiracy theories and the relationships between belief in such theories and psychological variables, it is therefore surprising that little research has examined the psychological impact of exposure to conspiracy theories. That is, to what extent do conspiracy theories actually influence people’s attitudes? Also, are people generally aware of the impact of conspiracy
theories on their attitudes, or do they think themselves invulnerable? We addressed these questions in the current study.

Research on the third-person effect provides a starting point to our research. The third-person effect or TPE (Davison, 1983) is the tendency for people to believe that persuasive media influence others more than themselves. Much research has replicated this finding in a variety of contexts including politics and news (e.g., Duck, Hogg & Terry, 1995) and advertising (e.g., David & Johnson, 1998; Duck, Hogg & Terry, 1998, 1999; Gibbon & Durkin, 1995; Gunther & Thorson, 1992; Innes & Zeitz, 1988). This research demonstrates that people generally feel ‘others’ to be more gullible than the self and that others should therefore be protected from potentially damaging attempts to change their attitudes and behaviors.

While the belief in conspiracy theories may not be considered damaging per se, or a direct attempt at influencing people’s attitudes for capital gain or to obtain votes, research on the TPE is useful in considering the impact of exposure to conspiracy theories on people’s attitudes. Just like persuasive media such as advertising, people may not want to admit that they are influenced by conspiracy theories because this may make them appear vulnerable, easily ‘led astray’, or weak-minded to others (Shermer, 1997). Admitting that they are influenced by conspiracy theories may also be threatening to their self-esteem, just as admitting that they are vulnerable to persuasive advertising (Duck & Mullin, 1995; Duck et al., 1995; Perloff, 1989). Therefore, people might be happy to assume that others are influenced by conspiracy theories, but not so ready to admit to being swayed by these theories themselves.

However, recent research demonstrates that, while people may not admit to being influenced by persuasive messages, they nevertheless are influenced (Douglas and Sutton, 2004). Even more intriguing, sometimes people appear to be completely
oblivious to their attitude change. Douglas and Sutton examined the perceived and actual impact of messages about gun control and global warming. Results revealed that, while people were accurate in judging the attitude change for others, they significantly underestimated the extent to which their own attitudes were influenced (see also Bem & McConnell, 1970; Markus, 1986; Wixon & Laird, 1976). They were therefore unaware that the persuasive messages had an impact on their attitudes.

In the current study, we used Douglas and Sutton’s (2004) method to examine the perceived and actual impact of conspiracy theories surrounding the death of Princess Diana. To illustrate our procedure, undergraduate students were assigned to a control or experimental group. The participants were drawn from the same population and were randomly allocated to the groups, so that the groups did not differ demographically. The control group were asked to rate their own (baseline self) and their classmates’ (baseline other) perceived agreement with a list of statements about the events surrounding Diana’s death. In the experimental group, participants were first asked to read some information containing popular conspiracy theories about Diana’s death. They were then asked to rate their own (current self) and their classmates’ (current other) perceived agreement with the same items. In addition to this, they were asked to rate their retrospective attitudes (i.e., what they perceive their attitudes to have been before reading the material – retrospective self) and the same for their classmates (retrospective other).

Using this design, it was possible to compare the perceived (current – retrospective) attitude change for self and others, with participants’ actual attitude change (current self – baseline self). We could therefore assess how accurate participants were about their attitude change. By sampling from the same undergraduate student population, our participant group is also the comparison group
enabling us to also identify whether participants’ perceptions of others were accurate with confidence. This strategy has been successfully applied to other self-serving biases (e.g., Krueger & Dunning, 1999), and contrasts with many other studies that have asked participants to compare themselves to broader, remote groups such as ‘other university students’ (e.g., Cohen, Mutz, Price & Gunther, 1988, Gunther, 1991; Gunther & Thorson, 1992).

If indeed there is a hidden impact of conspiracy theories, then people should perceive their attitudes to be unchanged as a result of exposure to conspiracy theories. That is, participants should rate their ‘current self’ and ‘retrospective self’ attitudes to be the same. However, comparing perceived attitude change for others (current – retrospective) with participants’ actual attitude change (current self – baseline self) should reveal that while people are accurate in judging the impact of conspiracy theories on others, that they significantly underestimate their impact on themselves. They will therefore be unaware of the impact of exposure to conspiracy theories on their attitudes.

Method

Participants and design

A total of 96 undergraduate students at a British university participated in the experiment. Of these, half were male and half were female. Participants’ median age was 20.9. Participants were approached whilst at leisure on campus, and were rewarded with sweets. The experiment consisted of a 2 (rated person: self/other) x 2 (attitude rating: retrospective/current) within-subjects design for the experimental group. In the control group, rated person (self/other) was manipulated within-subjects. Participants were randomly assigned to the control or experimental groups. As would be expected, given random assignment there were no significant differences in the distribution of age and gender across conditions.
Materials and Procedure

Participants in the control group were informed that they were going to be asked to read some statements about the incidents surrounding the death of Princess Diana. They were also informed that they would be asked to rate their own agreement with each statement, and how much they thought other undergraduate students at their university would agree with each statement. The term ‘conspiracy theory’ was not mentioned. Participants were then presented with five statements relating to five popular conspiracy theories about Diana’s death. These were taken from a news archive on the website:

(http://www.londonnet.co.uk/ln/talk/news/diana_conspiracy_theories.html).

These were as follows:

“One or more rogue ‘cells’ in the British Secret Service constructed and carried out a plot to kill Diana.”

“There was an official campaign by MI6 to assassinate Diana, sanctioned by elements of the establishment.”

“Diana faked her own death so she and Dodi could retreat into isolation.”

“Business enemies of Dodi and his father Mohammed Al Fayed assassinated Dodi, with the death of Diana a cover up for their operation.”

“Diana had to be killed because the British government could not accept that the mother of the future king was involved with a Muslim Arab.”

For each statement, participants were asked to rate either their own, or others’ agreement on a seven-point scale from 1 ‘strongly disagree’ to 7 ‘strongly agree’.

Those participants who rated their own attitudes first were asked to rate others’ attitudes second and vice versa so that order was counterbalanced. The scale reliabilities for self ($\alpha = .73$) and others ($\alpha = .85$) were both acceptable in accordance with Nunnally’s
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(1977) recommendation that a scale alpha of .70 should be considered acceptable in social psychological research. On completion, participants were debriefed and thanked for their participation.

Participants in the experimental group were informed that they would be asked to read some material about the incidents surrounding the death of Princess Diana, and to answer some questions. At this point, participants were given a sheet of paper outlining some points about the incidents surrounding Diana’s death. This was prefaced with the following statement:

“Many believe that Princess Diana’s death was not an accident. Additional information has been discussed that casts doubt on the conclusion that Diana’s death was accidental. Some of this information is presented below.”

The term ‘conspiracy theory’ was not mentioned in the information. The information that followed was a series of eight points outlining arguments for the position that Diana’s death was not an accident. These were popular conspiracy theories such as the concern over the rapid disposal of Diana and Dodi’s bodies, the missing Fiat Uno that was said to be involved in the accident, and the suggestion that witnesses heard a bomb blast immediately prior to the crash. For example, one conspiracy theory was worded as follows:

“Immediately after the crash news was broadcast, witnesses appeared on U.S. TV saying that they heard an explosion or bang before they heard the car crash. Was this a gunshot, or a bomb?”

After participants read the information, they were presented with the same five-item scale as for the control group. Participants were asked to respond to these items four times by rating: (a) their current agreement or disagreement with each statement (current self, $\alpha = .82$), (b) how much they agreed or disagreed with each statement
before reading the material (retrospective self, \( \alpha = .81 \)), (c) how much they think their classmates would currently agree or disagree with each statement (current other, \( \alpha = .86 \)), and (d) how much they think their classmates would have agreed or disagreed with each statement before reading the material (retrospective other, \( \alpha = .79 \)). Again, participants were asked to respond to each item on a seven-point scale from 1 ‘strongly disagree’ to 4 ‘neutral’ to 7 ‘strongly agree’. Question order was blocked for ‘self’ and ‘other’ and then alternated across time (retrospective or current), such that there were four different versions of the questionnaire. In the four versions, ratings were made in the following orders:

1. Self current \( \rightarrow \) self retrospective \( \rightarrow \) other current \( \rightarrow \) other retrospective
2. Self retrospective \( \rightarrow \) self current \( \rightarrow \) other retrospective \( \rightarrow \) other current
3. Other current \( \rightarrow \) other retrospective \( \rightarrow \) self current \( \rightarrow \) self retrospective
4. Other retrospective \( \rightarrow \) other current \( \rightarrow \) self retrospective \( \rightarrow \) self current

Participants were randomly assigned to one of the four questionnaires and again, there were no differences in the distribution of participants’ age and gender across conditions. On completion, participants were debriefed and thanked for their participation.

Results

The analyses were carried out in accordance with those of Douglas and Sutton (2004). Results for the experimental group were entered into a 2 (rated person: self/other) x 2 (attitude rating: retrospective/current) repeated measures ANOVA. There was no main effect for rated person. Overall, participants did not rate their classmates as endorsing the statements about Diana’s death more \( (M = 2.77) \) than themselves \( (M = 2.61) \), \( F(1, 47) = 1.35, p = .251, \eta^2 = .03 \). Results did however reveal a main effect for attitude rating, such that mean ratings of agreement with the statements across self and others increased from retrospective \( (M = 2.48) \) to current \( (M = 2.90) \),
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\[ F(1, 47) = 38.91, p = .000, \eta^2 = .45. \] Finally, as predicted the interaction between rated person (self/other) and attitude rating, was significant, \( F(1, 47) = 11.4, p = .001, \eta^2 = .20. \) All means, standard deviations and significant between-cell differences are displayed in Table 1.

**Perceived attitude change for self and others**

We compared current and retrospective attitudes and results revealed that attitude change was perceived to occur for others, \( t(47) = 5.02, p = .000, d = 0.76, \) and the self, \( t(47) = 2.52, p = .015, d = 0.14. \) As expected, the difference scores between current and retrospective attitudes for self and others revealed that attitude change was judged to be greater for others than the self, \( (Ms = 0.71 \text{ and } 0.15), t(47) = 3.38, p = .001, d = 0.75. \)

**Actual attitude change**

As predicted, participants were *more* in agreement with the statements about Diana’s death in the experimental group than in the control group, \( t(47) = 5.23, p = .000, d = 1.07. \) Also, as expected, participants’ perceptions of their own change (current self – retrospective self, \( M = 0.15) \) were significantly lower than actual attitude change (current self – baseline self, \( M = 0.93); \) a test of the difference between these scores revealed that participants underestimated the extent to which they were influenced, \( t(47) = 13.52, p = .000, d = 0.87. \)

**Accuracy of attitude change perceptions**

The actual attitude change for the sample (current self – baseline self) was no different to the attitude change that participants in the experimental group attributed to their classmates (current other – retrospective other), \( t(47) = 1.57, p = .124, d = 0.20. \) This finding teamed with the finding that participants significantly underestimated their
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attitude change, is further evidence that participants are more accurate about others’
attitude change than their own (Douglas and Sutton, 2004).

The experimental group’s retrospective ratings of their attitudes (retrospective
self) were more favoring of the statements than those of the control group (baseline
self), $t(47) = 4.52, p = .000, d = 0.91$. This suggests that participants misremembered
what their original attitudes were (cf. Bem & McConnell, 1970; Markus, 1986; Wixon

Discussion

The current results suggest that there may indeed be a hidden impact of
conspiracy theories. While participants in our study were prepared to admit to being
influenced by conspiracy theories surrounding the death of Princess Diana – the
difference between ‘current self’ and ‘retrospective self’ attitudes was significant –
participants significantly underestimated the extent of their own attitude change.
Participants were therefore unaware of the extent of the impact of the conspiracy
theories on their own attitudes. In contrast, their estimates of how much others’
attitudes had changed were accurate. This finding supports research in the TPE
literature demonstrating that people underestimate the extent of their own persuasibility,
rather than overestimating the extent of others’ persuasibility (e.g., Cohen et al., 1988;
Douglas & Sutton, 2004). This study also replicates the finding that people are
sometimes unaware, upon exposure to information, that their previous attitudes have
changed (Douglas & Sutton, 2004; see also Bem & McConnell, 1970; Markus, 1986;

It is also interesting to note that participants were not only unaware of the extent
of their attitude change. Indeed, it also appeared that participants misremembered what
their original attitudes were because their perceived retrospective attitudes did not
match the original attitude ratings given by the control group. In other words, participants inaccurately reported what their retrospective attitudes were. This adjustment was not made for others. This ‘revision’ of previous attitudes perhaps creates the illusion for participants that attitude change occurred less for themselves than for others. Akin to the hindsight bias (Fischhoff, 1975; Hawkins & Hastie, 1990), participants seemingly misremembered their previous attitudes so that they appeared closer to their current attitudes. Taken together, our findings suggest that the conspiracy theories about the death of Princess Diana influenced participants without awareness; while participants perceived themselves to be relatively invulnerable when they were clearly not, they were more than happy to suggest that others members of their class were more influenced.

In replicating the results of Douglas and Sutton (2004) in the domain of conspiracy theories, the current research extends previous work to a different form of social influence. Here, the information given to participants is unlikely to change their behavior. However, participants still underestimated the extent to which they were influenced. Previously, this bias had only been demonstrated for blatant influence attempts such as messages about global warming (attempts to persuade people to conserve fuel; Douglas & Sutton, 2004) and defamatory messages about politicians (attempts to influence voting behavior; Cohen et al., 1988). Therefore, from these results we can conclude that the underestimation of personal influence extends beyond intentionally persuasive content domains. Perhaps people more generally assume that they are resistant to attempts to persuade them.

So, how far would this bias extend? Future research may be designed to examine other areas where people are unaware of the influence they experience. In particular, while our results extend previous findings to conspiracy theories (a new
content domain), future research may also examine new media. For example, the Internet is a venue of many concerted attempts to influence the public, by interests ranging from companies attempting to sell products to right-wing and racist groups attempting to recruit new members. Research suggests that people are concerned about the influence of this material (e.g., Beckles, 1997; Zickmund, 1997), and respond strongly to it (e.g., Douglas & McGarty, 2001, 2002). However, beliefs about the impact of harmful Internet messages on self and others, and the actual impact of this material on people, have not yet been investigated.

Future research might also investigate the underlying mechanisms that lead people to underestimate the extent to which they are influenced by conspiracy theories and other forms of influence. In the TPE literature, the assumption that others are more influenced than the self has been linked to a motivation to maintain positive self-esteem (e.g., Duck & Mullin, 1995; Duck et al., 1995; Perloff, 1989). Perhaps therefore, denying the true extent of influence on the self might protect people from losing ‘face’ with others, or from feeling gullible. Both are likely to have an impact on self-esteem. The extent to which it is normatively acceptable to be influenced by media content has also been linked with the TPE (Duck et al., 1999). It may be normatively unacceptable to admit being influenced by elaborate and illogical conspiracy theories, and this could potentially explain why people do not admit the full extent of their personal influence.

Finally, our findings call into question current theorizing about the function of conspiracy theories. If indeed conspiracy theories are a means to provide explanations for uncertain events (Melley, 2002), or are a response to powerlessness (e.g., Melley, 2002; Mason, 2002), then it is perhaps surprising that people are not prepared to fully accept that they have been influenced by them. We may expect people to be reluctant to agree that they are influenced by advertising because it has a material impact on their
lives, but if conspiracy theories are adaptive, then why are they so widely dismissed as foolish and controversial? Future research may therefore attempt to uncover other reasons why people overtly reject conspiracy theories but perhaps privately accept them to be true. Related to this, it would be useful to examine the potential impact of conspiracy beliefs on other socially significant variables such as locus of control (Rotter, 1966), and just world beliefs (e.g., Lerner, 1980; Lipkus, Dalbert & Siegler, 1996; Sutton & Douglas, 2005).

In summary, the current study provides a first examination of the real impact of conspiracy theories. Indeed, conspiracy theories about the death of Princess Diana were influential on our British participants. However, these very participants were oblivious to the impact that these conspiracy theories had on their attitudes. They correctly assumed that others from the same demographic as themselves were influenced but denied the full extent of influence on themselves.
Author note

The authors thank Lisa Huggins who collected the data for this study.
Footnotes

1. Douglas and Sutton (2004) used both a cross-sectional design (control/experimental groups) as in the current study, and a longitudinal design where one group of participants was tested in two phases. Their findings were the same using both methods.
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References


Table 1. *Mean (and standard deviation) control, retrospective and current attitudes towards for self and other. Higher values indicate greater rated endorsement of the statements.*

<table>
<thead>
<tr>
<th>Attitude rating</th>
<th>Control</th>
<th>Retrospective</th>
<th>Current</th>
<th>Perceived attitude change</th>
<th>Actual attitude change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>1.75 (0.62)aa</td>
<td>2.53 (1.05)b</td>
<td>2.68 (1.06)dd</td>
<td>0.15 (0.40)f</td>
<td>0.93 (1.21)g</td>
</tr>
<tr>
<td>Other</td>
<td>2.15 (0.75)c</td>
<td>2.42 (0.84)bc</td>
<td>3.13 (1.01)ee</td>
<td>0.71 (0.98)g</td>
<td></td>
</tr>
</tbody>
</table>

Means that share a subscript are not significantly different at $p < .05$. 