Perspective taking reduces the fundamental attribution error

Abstract

The fundamental attribution error (FAE) refers to the predisposition for people to attribute the behavior of others to dispositional characteristics, rather than situational causes external to the individual. The current study aimed to investigate whether pre-experimental perspective taking (PT) training could reduce the FAE. Participants were randomly assigned to either receive PT training, or to receive no training, before completing a typical attitude attribution task. This task required participants to watch a video clip of an actor reading an essay for or against capital punishment and then to infer the attitude of the actor. Results indicated that participants in the perspective taking condition experienced a significant reduction in the FAE compared to participants in the control condition.

PERSPECTIVE TAKING REDUCES THE FUNDAMENTAL ATTRIBUTION ERROR

When assessing and forming judgements of an individual's behavior we tend to overlook contextual information and attribute behavior to internal dispositions (Gawronski, 2004; Masuda & Kitayama, 2004; Gilbert & Malone, 1995; Ross, Green, & House, 1977). This bias, which has been well documented in the social psychology literature and is referred to as the fundamental attribution error (FAE), can have significant negative consequences (Alicke, 2000; Gilbert & Malone, 1995).

Perspective taking, which can be defined as adopting another person's viewpoint (Parker & Axtell, 2001), may be a way to reduce the FAE. For example, a person with well-developed PT skills should be able to view a situation from the perspective of another individual and thus anticipate their beliefs, desires, emotions and intentions (Epley, Morewedge, & Keysar, 2004). Perspective taking has been empirically implicated in various ways; it has been recommended as a simple strategy for reducing social bias and for strengthening the creation and maintenance of social bonds (Galinsky, Ku, & Wang, 2005), it has been used to reduce stereotyping (Yee & Bailenson, 2006) and it has been shown to improve negotiation skills (Galinsky & Mussweiler, 2001). Of particular interest to the current study, Storms (1973) investigated an experimental manipulation of visual orientation in the attribution process. In other words, the researcher altered the viewpoint of an observer prior to an attitude attribution task and found dispositional inferences made by subjects were reduced.

A recent functional analytic theory is gaining increasing empirical support for its account of perspective taking as a form of learnt or operant behavior (e.g., McHugh, Barnes-Holmes, & Barnes-Holmes, 2004; McHugh & Stewart, 2012). This account is referred to as Relational Frame Theory (RFT: Hayes, Barnes-Holmes, & Roche, 2001). According to this approach the key to human language and cognition is the ability to put

things into relations with each other not based on their physical properties but based on cues as to which relation to apply. This is called relational framing. Consider the relation between a word and an object. This is perhaps the most fundamental and important aspect of language. An example would be the relation between the word ‘ball’ and an actual ‘ball’. Humans can treat these two things as being the same as each other, despite the fact that they are not physically the same as each other. For instance, if I ask you to give me the ball, you will hand me the actual ball. In other words, humans can put these things into an abstract relation of sameness with each other. Sameness is just one example of relational framing. There are other examples that we go on to learn; comparison, opposition, difference, temporal, spatial and hierarchical.

RFT suggests that we learn to relate (relationally frame) things in our environment and that this relational activity can change the psychological functions of those things. This change in psychological functions is referred to as ‘transformation of function’ (TOF) and this effect can be useful in many contexts (see Dymond & Roche, 2013). However, TOF can also be problematic in some contexts. For example, I may frame myself as a socially awkward individual and based on that framing I may derive further relations such that I should avoid company. In the latter example, the functions of other people are transformed for me so that I tend to avoid them, even though interaction with them might be psychologically beneficial.

Children learn to relate their own behavior as different from that of others by learning three key ‘deictic’ or ‘perspective’ relations which are “I versus YOU”, “HERE versus THERE” and “NOW versus THEN”. They learn to respond appropriately to questions such as ‘What are YOU doing HERE?’, ‘What am I doing NOW?’, ‘What was I doing THEN?’ etc. As children gradually learn to respond appropriately to these questions, and as they learn that whenever they are asked about their own behavior they always

answer from the point of view of 'I', 'HERE' and 'NOW', they will learn this perspective is consistent and different from that of other people. For example, if you ask an individual about their own behaviour, s/he will always answer from the position of 'I', 'HERE' and 'NOW' in response to your question asked by YOU, THERE (where you are) and THEN (when you asked – a few seconds ago). I is always from this perspective here, not from someone else's perspective there. A sense of perspective is therefore abstracted through learning to talk about one's own perspective in relation to other perspectives. Previous research in this area has demonstrated that perspective taking can be trained when deficient (Weil, Hayes, & Capurro, 2011), that rehearsing perspective taking can enhance the repertoire on a subsequent task (Vilardaga, Estévez, Levin, & Hayes, 2012) and that an under rehearsal of this repertoire can result in perspective taking deficits (Janssen, et al., 2014).

The current study aims to develop the RFT literature on perspective taking by asking participants to engage in PT training (McHugh et al., 2004) prior to completing the most widely employed test of the FAE; the attitude attribution paradigm (Bauman & Skitka, 2010; Jones & Harris, 1967; Wright & Wells, 1988). We predict that the perspective taking groups will experience a reduction in the FAE.

Method

Participants and Design

A total of 80 participants from the general public (i.e., 50 females and 30 males) took part in the experiment. All participants were over the age of 18 years old (mean 25.23 years, SD= 10.71) and were assigned to one of four groups via the excel random number generator. Each group therefore had 20 participants. Group 1 (14 females; mean 24.65 years, SD= 11.01) received PT training and watched a video 'for' capital punishment

Group 2 (12 females; mean 26.95 years, SD= 12.98) received PT training and watched a video 'against' capital punishment. Group 3 (11 females; mean 22.25 years, SD= 0.77) received no training and the 'for' capital punishment video. Group 4 (13 females; mean 27.05 years, SD= 12.36) received no training and the 'against' capital punishment video. The study employed a 2 (training: PT training vs. no training) x 2 (position: for vs. against) between subjects design, with FAE score as the dependent variable.

Stimulus

Perspective Taking (PT) Training. Participants in the PT groups received a training exercise (McHugh, et al., 2004, protocol) consisting of 30 questions with 2 answers to choose from. The protocol involved trials that required the participant to respond to the three perspective-taking frames of I-YOU, HERE-THERE and NOW-THEN across three levels of relational complexity (i.e., a *simple* relational response; a *reversed* relational response; and a *double reversed* relational response). For example, a simple NOW THEN trial is as follows: *'Yesterday I was watching television, today I am reading a book. What am I doing now?'* A reversed I YOU trial is as follows: *'I have a red brick and you have a green brick. If I was you and you were me, what would you have?'* Finally, a double reversed HERE THERE, NOW THEN trial is as follows: *'Yesterday you were sitting here on the blue chair and today you are sitting there on the black chair. If now was then and then was now and here was there and there was here. Where would you be sitting today?'* Participants were free to answer these questions in as much time as they needed. In line with McHugh et al. (2004) and Villatte, Monestes, McHugh, Freixa i Baqué and Loas (2010) accuracy rates of 50% in the two-response protocol can be interpreted as chance level responding therefore only participants whose scores were over 67%, and thus demonstrated adherence to the perspective taking protocol were included in the analysis.

Only 3/40 participants did not meet this criterion, one 'for' and two 'against' (see Appendix 1 for participants overall accuracy on the perspective taking protocol).

Attitude Attribution Task. Participants were asked to watch either a 'for' or 'against' capital punishment video clip. The video clips were created with the help of a female confederate who read the essays (taken from Masuda & Kitayama, 2004) without emotion. The 'against' capital punishment video was 1 minute 37 seconds, whilst the 'for' capital punishment video was 1 minute 29 seconds.

Following the video participants answered an FAE questionnaire, which consisted of three questions (taken from Masuda & Kitayama, 2004). Question 1 was '*please infer the attitude of the individual in the video towards capital punishment*' where 1 was equal to '*extremely against*' and 15 was equal to '*extremely in favour*'. If participants recorded scores closer to the extremities of the scale on this measure then they committed the FAE. Question 2 asked participants to estimate the attitude of an average 20 year old on the topic of capital punishment and Question 3 asked participants to indicate their own views on capital punishment. These questions were also assessed on a 15-point scale. As with Masuda and Kitayama (2004) estimates of both average attitude and the participants own views were negative towards capital punishment, but they bore no relationship to the results recorded on the FAE measure. Hence they will not be discussed further.

Procedure

After being randomly assigned to condition, participants in the perspective taking groups were told that the experiment would involve two unrelated parts; firstly they would have to complete a 'cognitive measure' and secondly they would have to complete an everyday decision making task that required them to watch a video about capital punishment and rate their opinion on the topic. Those in the control group received no

training so were only given the second part. Before beginning the attitude attribution task all participants were made explicitly aware that the speaker would be reading an essay that they were assigned to write: "*The experiment concerns attitude inference. The person speaking in the video will be reading an essay for or against capital punishment that they were assigned to write in an English class*". See Figure 1 for a graphical representation of the procedure.

Insert Figure 1

Results

Figure 1 suggests that the control group in both the 'for' (M = 11.85, SD = 2.36) and 'against' (M = 3.5, SD = 2.92) capital punishment conditions committed greater FAE than the participants who received PT training in the 'for' (M = 10.05, SD = 2.55) and 'against' (M = 5.22, SD = 3.57) capital punishment conditions.

Insert Figure 2

A 2 (training: PT training vs. no training) X 2 (position: for vs. against) analysis of variance (ANOVA) revealed a significant interaction between intervention and essay type, F (3,76) = 7,19 $p < .0.05$ $\eta^2 = .09$ such that PT training attenuated the FAE (i.e. ratings were closer to 8 in the perspective taking groups).

Discussion

The current experiment indicated that a pre-experimental perspective taking exercise reduced the fundamental attribution error. The current findings have implications both at a practical and theoretical level. At a practical level, the results suggest that brief perspective taking interventions could have use in improving everyday social interactions in which the FAE is committed. Indeed such exercises would be easily disseminable and could be accomplished in many different contexts (from schools to workplaces).

At a theoretical level, the current study demonstrated the effectiveness of exposing participants to an RFT based perspective-taking protocol. According to RFT, the core of language is being able to put things into abstract relations that do not depend on the characteristics of the things being related but instead depend on cues that 'signal' which relational frame is appropriate. There is increasing evidence for these frames (e.g., Steele & Hayes, 1991). As we learn to respond to perspective relations (i.e., I YOU, HERE THERE and NOW THEN) we gradually learn to abstract a sense of perspective so that whenever we are asked about our own behavior we learn to answer from the point of view of 'I', 'HERE' and 'NOW' and we learn that this perspective is consistent and different from that of other people. The key advantage of the RFT approach to understanding and developing perspective taking is that RFT is a behavioral approach to explaining behaviour, which means that it is a naturalistic, empirical and pragmatic approach.

It is naturalistic because it is not based on things that cannot be directly seen or manipulated, such as the id or the ego of psychodynamics or the visual-spatial sketchpad of cognitive psychology, for example. Instead, its theoretical explanations always include processes in the environment that affect behavior and that can be directly seen and manipulated by the scientist. For example, relational responding is a measurable activity that is affected by socio-verbal interaction and indeed, as suggested above, can be trained by systematically changing the environment (e.g., by focusing on particular types of

relations). It is empirical as it is based on a scientific theory developed following the observations of scientists over decades of behavior analytic research, and in that time there has been substantial empirical and theoretical progress (see Dymond & Roche, 2013 for a recent book length review of this progress). Finally, it is pragmatic as it aims to actually change behavior, not simply describe it. In fact this intentional focus on changing behavior is a fundamental, 'built-in' feature of this account and therefore it will continue to lead to immediate and promising applications.

There are a number of limitations to the current study that would need to be addressed in future research. Firstly, no measure of state perspective taking ability was taken following the intervention to ensure that that those in the perspective taking groups were, in fact, better able to take perspective of others than those in the control group. However, given that there is no standardized state scale of perspective taking ability that could be used to assess this, other investigations have yet to include such a measure in research of this kind (Vilardaga et al., 2012). Secondly, although every effort was made to convince the perspective taking groups that the training was unrelated to the subsequent FAE task, it is possible that exposure to such an intervention may have primed the participants to be more careful during the FAE task, not as a function of increased perspective taking abilities, but because they became more suspicious following the task. In order to overcome this issue it may be worthwhile to repeat the investigation with a control group who do mock perspective taking training where the three relational abilities are not targeted. However, it is important to note that past research has employed such control groups and found no difference between a mock control group and a no training control group (Weger, Hooper, Meier, & Hopthrow, 2012).

Future research could include a pre-experimental measure of perspective taking and then use moderation analysis to investigate the effect of PT training on the FAE. It may

also be interesting to determine the effects of an extended perspective taking training exercise. For example, it is likely that longer perspective taking training may result in a greater ability to appreciate the contextual variables in a given situation. Overall, this is the first study to attempt to use perspective taking training to attenuate the FAE. The results are particularly noteworthy given that the findings reported herein suggest that a brief exercise in taking the perspective of another may be useful in reducing the robust FAE phenomena.

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Appendix 1

Accuracy scores across the two Perspective Taking Groups.

For	Against

297	27	26
298	27	26
299	21	30
300	26	26
301	28	28
302	23	29
303	29	30
304	29	30
305	30	29
306	30	29
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313	23	30
314	29	30
315	27	
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