**Introduction**

Decision-making is often social in nature – we turn to others for their opinions or advice when we are uncertain. How we evaluate and interpret this information can determine whether or not we use it.

A potential method of evaluating the quality of another person’s information is the confidence heuristic, in which people express confidence to convey to others, where confidence is defined as the strength of a person’s belief that a specific statement represents their most or best accurate knowledge (Brehm & Brehm, 1981).

Previous research has found expressed confidence to be used more than that which is expressed tentatively or with some element of doubt in many situations including: eyewitness test, researchers (Romanczyk & Sniezek, 1992), knowledge-based tasks (Sniezek & Van Swol, 2001), group decision-making (Zamre & Sniezek, 1997).

However, the amount of influence that confidence has is variable, leading researchers to suggest that the influence of confidence may be mediated by task type (Zamre & Sniezek, 1997).

The **Confidence Heuristic**

Thomas and McFadyen (1995) suggest that the most significant individual’s answers may be selected as a default option, using confidence as a heuristic by which to simplify the decision-making process.

In utilizing the confidence heuristic more weight is placed on a person expressing confidence in the veracity of the content of what is being conveyed. A high confidence expression is taken as a cue to accuracy, knowledge, and expertise. The assumption is that someone more likely to possess reliable information if it is expressed confidently rather than tentatively.

**Results (1) Confidence Heuristic Use**

**Influence of Confidence on Choice**

The addition of confidence cues to a speaker’s answer led to shifts in participants’ choice of answer compared to when no confidence cues were used, F(2, 516) = 14.80, p < .001.

The extent of these shifts was dependent on the task, F(4, 832) = 13.52, p < .001. Figure 1 illustrates this three-way interaction showing the differences in the mean choice across the experimental and control conditions.

On all three tasks the addition of confidence cues resulted in a shift towards answers given by the high confidence speaker, largely to the detriment of the answers given by the low confidence speaker. This was most apparent on Task 3, although we still observed a high confidence speaker advantage on all three tasks. A high confidence speaker’s answers were seen on Task 1, where both the medium and low confidence speakers lost out equally. The smallest shifts in choice were seen on Task 2. (All p < .01 with the exception of Medium confidence on Task 2, F(108, 377) = 57, p = .57). Hence, the three-way interaction appears to arise from Task 2 being very different to the other tasks.

**Influence of Confidence on Choice Confidence**

The addition of confidence cues led to an increase in participants’ confidence in their answers, regardless of the level of confidence being expressed, by 7.176% on Task 1, F(1, 75) = 13.67, p < .001, by 7.52% on Task 2, F(1, 90) = 9.36, p = .001, and by 27.51% on Task 3, F(1, 72) = 8.25, p = .006. However, as Figure 2 shows, control group confidence is much higher in Task 2 than on the other tasks, leading to much smaller increases in confidence, reinforcing the suggestion that this task is different to the other two tasks.

Although the confidence heuristic does seem to be a general cognitive heuristic, being situationally induced when uncertainty is high, the extent to which another’s confidence is used as a heuristic appears to be mediated by individual differences, supporting previous suggestions (Price & Stone, 2004; Thomas & McFadyen, 1995). Specifically, Need for Closure and Need for Cognition were found to affect our use of another’s confidence when making choices, whereas Need for Cognition affects how confident we are.

For high Need for Closure individuals, using the confidence heuristic may catalyse their desire for confident knowledge, allowing them to make quick decisions and confident choices by employing this strategy. Low Need for Closure individuals are less motivated to produce quick and confident judgments and so rely less heavily on the confidence heuristic.

Need for Cognition did not lead to any differences in the extent to which the confidence heuristic was used, possibly because of situational factors that reduced all individuals’, regardless of their Need for Cognition, to relying on Need for Cognition did, however, have an effect on how confident people were in their chosen answers. It may be that high Need for Closure individuals do still try and engage in more cognitive effort when choosing their answers than their low Need for Cognition counterparts, which is reflected in their higher levels of confidence.

**Discussion**

The results of this experiment provide support for the suggestion that people use the confidence heuristic as a way of simplifying the decision-making process. When people feel uncertain they turn to the confidence with which an answer is expressed, as a heuristic, a ‘first answer’. Specifically, the higher the level of confidence used by a speaker, the greater that speaker’s influence is on the choices made by the listener.

The extent to which we are influenced by another person’s confidence is mediated by both ability and need. The work of Zamre and Sniezek (1997) suggests that taking part in a confidence task in their answers into account, it would seem that the greater the uncertainty we will rely upon the confidence that another person expresses as a way of making a decision.

However, just the very expression of confidence by someone in relation to their information, regardless of the level of that confidence, is enough to make us more confident ourselves.

**Results (2) Individual Differences in Confidence Heuristic Use**

**Influence of Confidence on Choice**

Significant Need for Closure x Speaker confidence x Condition interactions were seen on Task 1, F(2, 162) = 23, p < .001, and Task 2, F(162, 2) = 3.63, p < .05, but not on Task 3, F(2, 162) = 22, p = .80. From Figure 3 it can be seen that on Tasks 1 and 3, High (Low) Need for Closure participants showed greater shifts in choice towards answers expressed with high confidence and away from those expressed with medium confidence (all p < .05). Comparable shifts in choice for High (vs. Low) Need for Closure participants were seen on Task 2, and on the low confidence speakers answers on Tasks 1 and 3 (all p > .05). Need for Cognition had no effect on participants’ choices of answers on any of the three tasks (all p > .05).

**Influence of Confidence on Choice Need for Cognition made no difference to participants’ confidence in answers overall or on any of the three tasks, F(1, 72) = 2.11, p = .15, F(1, 90) = 2.49, p = .12, and F(1, 72) = 3.22, p = .08. A significant Need for Cognition x Condition interaction indicated that High (Low) Need for Cognition participants were more confident in their chosen answers than Low Need for Cognition participants were (M = 71.27; M = 56.63), F(1, 86) = 5.99, p = .02. The lack of a significant interaction with task type indicated that this pattern was the same across all three tasks, F(2, 172) = 1.40, p = .25.

**Conclusion**

People do appear to use a heuristic that uses the confidence of a person as an indicator of the validity of their information. People use the heuristic when they are uncertain in making choices and having confidence in three choices. However, the extent to which the confidence heuristic is used, and the way in which it is used, is influenced by individual differences.

**Method**

110 undergraduates (86 women and 24 men) volunteered to partake in the study, and ranged in age from 18 to 46 years, with a mean age of 21.20 years (S.D. = 4.81).

**Materials**

Three different questionnaire-based tasks were used to measure confidence heuristic use: a) general knowledge task (Task 1) b) a maths task (Task 2) c) an evaluative task (Task 3)

Each task consisted of 12 follow-up questions followed by three alternative answers, each ‘spoken’ by a different speaker. Where relevant, accuracy was kept constant across all three speakers. In the experimental condition, one speaker accompanied all their answers with high confidence cues, one with medium confidence cues and one with low confidence cues. In the control condition no confidence cues were used.

The confidence cues were developed in an earlier pilot study, and consisted of phrases such as: ‘I think it’s...’ (medium confidence) ‘I’m not sure but I could be...’ (low confidence)

Two personality questionnaires were also used: Need for Cognition (Weisberg, 1994) Need for Cognition (Cacioppo & Petty, 1982). Design & Procedure

A 3 (‘Speaker’ confidence: high, medium, and low) x 2 (Need for Closure: High vs. Low) x 2 (Need for Cognition: High vs. Low) x 2 mixed design, with repeated measures on the first variable was used.

For each question on the three tasks participants were asked to circle the ‘name’ (A, B or C) of the speaker corresponding to the correct/not correct answer, as well as indicating how confident they were in making that choice. On Task 1, participants were given three sets of confidence cues, with Likert-scale questionnaires. D.V.s were amount of time each speaker’s answers chosen and participants’ choice in their chosen answers.

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