Examples of Feedback Comments:

How to use them to improve your report writing

This document contains 4 examples of writing and feedback comments from Level 2A lab reports, and 4 steps to help you apply these feedback comments to your own work to improve your Level 2B report.

It is helpful if you have the following before you start:

- A copy of your Level 2A report and feedback
- A published journal article. The examples here use: Geurten, M., Willems, S., Germain, S., & Melmans, T. (2015). Less is more: The availability heuristic in early childhood. *British Journal of Developmental Psychology, 33,* 405-410.
- Report writing guide

Example 1: Compare and contrast……

Comment…"There is evidence of research, but your need to relate it to your own study more…"

Example from Level 2A report

A support theory was put together (Tversky and Koehler 1994) based partly on this heuristic, key assumption being that an event appears more or less likely depending on how it is described. One piece of evidence for this theory (Mandel 2005) comes from a study carried out in the first week of the 2005 Iraq war. Participants were found to estimate a terrorist attack more likely to occur when described as "plotted by al Qaeda", than when described as a "terrorist attack" and "non-al Qaeda" attacks, non-al Qaeda having the lowest estimate.

The aim of this study is to look at the availability heuristic in word frequency and permutations/combinations judgement, by doing so we can give further support that the availability heuristic is used frequently and error in judgement can occur due to this phenomena.

Step 1: Re-read Report Writing guide: Chapter on Introduction, following key points:

- *Structure*
- *Evaluation of literature*
- *Rationale*
- *Coherent argument for the hypothesis*

Step 2: Read introduction in a published paper, which links previous research to their own study, and builds a rationale (e.g., Geurten et al., 2015)

Interestingly, Winkielman, Schwarz, and Belli (1998) established that the subjective

experience of ease of retrieval can also guide memory decisions. Specifically, they showed that people who were required to recall four childhood events (easy task) were more likely to infer that they could remember large parts of their childhood than people who were asked to recall twelve such events (difficult task), although the former recalled only a third as many episodes.

Nowadays, the involvement of the experienced ease of retrieval has been demonstrated in many domains of judgement. For instance, people rely on the ease with which examples of self-confident behaviours are recalled to determine whether they have an assertive personality (Schwarz et al., 1991). However, despite the well-established influence of experienced ease on a wide range of judgements, very few investigations have been conducted to examine whether children also rely on the subjective feeling of ease to guide their decisions. To our knowledge, the only research that has been conducted from a developmental perspective is the study by Davies and White (1994), which indicated that frequency judgements are already based on the ease with which names are processed by the age of 7 years. Thus far, the question of whether the same is true for younger children or for memory decisions has remained unexplored. From a theoretical point of view, the finding that young children's memory judgements are influenced by the experienced ease of retrieval rather than only by the objective content of their memory would provide crucial information about the nature of the processes that are involved in decision-making in early childhood. More specifically, it would corroborate the recent findings indicating that metacognitive expectations may already influence judgements in children as young as 4 (Geurten et al., 2015b).

> **Commented [m1]:** Detailed review of literature relevant to the hypotheses
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> **Commented [m2]:** Evaluation of literature
>
> **Commented [m3]:** Rationale for the methodology used
>
> **Commented [m4]:** Coherent argument for the hypothesis

Step 3: Identify the key points in the Report writing guide in the published article (see comments in the paragraph above).

Step 4: Apply this to your own work (see below for example from Level 2A report).

Supporting theories have been developed (Tversky and Koehler 1994) based on the availability heuristic. A key assumption of these theories that an event appears more or less likely depending on how it is described. For example, (Mandel 2005) an experiment carried out in the first week of the 2005 Iraq war found that Participants estimated a terrorist attack more likely to occur when described as "plotted by al Qaeda", than when described as a "terrorist attack" or a "non-al Qaeda" attacks, non-al Qaeda having the lowest estimate. More recent research suggests that the availability heuristic is not universal, and that use of heuristics is adaptive, according to age and environment (e.g., Gegerenzer, 2011). For example, research on the impact of age on use of heuristics (Mata, 2007), has found that older participants opt for simpler decision making strategies than younger participants. The present study will revisit the original Tversky and Kahnemann paradigm using a young adult population.

> **Commented [MS5]:** Detailed review of literature relevant to the hypothesis.

Tversky and Kahneman (1973) have been criticised for using uncharacteristic letters in their word frequency estimation of different word forms task, as most consonants in the English language are most common in the first position. This could lead participants to assume that the letter 'R' was

most common in the first position if they already had some knowledge of the general position of consonants, without paying attention to the specific letter (Lopes and Oden, 1991). As a result, in this study the experiment was adapted with different word forms and letters used to test if results would still support Tversky and Kahneman (1973) after taking into account these extraneous variables. (2118508)

The aim of this study is to look at the availability heuristic in word frequency and permutations/combinations judgement. Specifically, adapted versions of experiments 3 and 4 Tversky and Kahneman (1973) are used, with ing and –n- in place of the letter R in the first or third position, and 2 different permutations of rows of Xs. By doing so we can give further support to the theory that the availability heuristic is used frequently and error in judgement can occur due to this phenomena (Kahnemann & Tversky, 1996).

Example 2: From opinion to evidence….

Comment…"needs more literature based evaluation in discussion"
Example from Level 2A Report
Even though both structures have exactly the same amount of paths from the top to the bottom, availability have aided their decisions, which goes in agreement with the original findings, that actually availability could lead to bias decisions. (Tversky & Kahneman, 1973). To contrast the conclusion drawn, there are some implications that may have altered the results and even though a significant difference may not be seen as a result of those, bias could be lessened in their existence. Not every availability heuristic works in all contexts, due to information being exposed in dissimilar ways in various environments, along with different tasks, stimuli and even guidelines that assist the search for the response having equivalent effects. For instance, there is a difference between a laboratory session and real life, when given a problem to solve, as well as the assignment that is to be performed, as in this particular study participants that were familiar with statistics may have previously obtained the knowledge of how to solve the specific puzzle consisting of paths in structures.

Step 1: Re-read Report Writing guide: Chapter on Discussion, following key points:
- Summary and discussion of results
- Relate to other research findings and theoretical models
- Evidence of evaluation/analysis
- Evaluation of methodology

Step 2: Read discussion in a published paper, which discusses results based on previous literature (e.g., Guerten et al., 2015)

The primary focus of this research was to determine whether young children's assessments of their memory are influenced by the subjective ease experienced during the retrieval process. Our results provide evidence supporting this hypothesis… From a theoretical point of view, these findings are consistent with the results of other studies which have recently established that the implementation of inference rules, based on subjective experience or metacognitive expectations, to regulate decision-making

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processes develops very early in childhood (Geurten, Willems, & Meulemans, 2015a; Geurten et al., 2015b; Hembacher&Ghetti, 2014). Moreover, the results obtained for the 8-year-old group suggest that, at some point in their development, children stop blindly relying on the subjective feeling of ease when making decisions. Specifically, we hypothesize that children have metacognitive beliefs about when ease of processing should be used to guide memory decisions. Based on these beliefs, we suspect that older children (who have more cognitive resources) start to strategically disqualify the feeling of ease as a cue for judgements when it is experienced in irrelevant contexts (Westerman et al., 2003). Interestingly, the latter hypothesis is supported by the results of Pachur, Mata, and Schooler (2009) indicating that adults with good cognitive capacities are able to strategically disqualify subjective cues for judgments when those cues are perceived as irrelevant.

> **Commented [MS10]:** •Relate to other research findings and theoretical models

> **Commented [MS11]:** Evidence of evaluation/analysis

Step 3: Identify the key points in the Report writing guide in the published article (see comments in the paragraph above).

Step 4: Apply this to your own work (see below for example from Level 2A report).

In the permutations experiment, even though both structures had exactly the same amount of paths from the top to the bottom, availability aided their decisions, which agrees with the original findings, that actually availability could lead to biased decisions. (Tversky & Kahneman, 1973). These findings provide evidence for the use of the availability heuristic in permutations tasks and can be explained in two ways. Firstly, the columns are the first recognition sights for paths. There are more of these in Diagram A as it has 8 in comparison to the 2 of diagram B. Secondly, diagonal and horizontal paths are a lot clearer to see in diagram A (Tversky and Kahneman, 1973).

> **Commented [MS12]:** •Summary and discussion of results

> **Commented [MS13]:** •Relate to other research findings and theoretical models

To contrast with the conclusion drawn, some factors may have, lessened the bias. . Not every heuristic works in all contexts, due to environmental differences,with different tasks, stimuli and instructions. For example, Pachur, Mata & Schooler (2009) found that in task requiring estimation of infectious diseases in major US cities, participants were able to strategically discount cues that may bias judgements if these cues were seen as irrelevant. In the context of the present study, participants' knowledge of probability and biases may have influenced their responses.

> **Commented [MS14]:** Evidence of evaluation/analysis

> **Commented [MS15]:** •Evaluation of methodology

Example 3: "What are you trying to say?..."

Comment : "academic communication could be substantially improved in terms of clarity and professional style- try to adopt a more journal like writing style"

Example from Level 2A report

The studies mentioned proposed that heuristic availability underlines one if not the most important factor in decision taking. The rule of thumb is potentially biased from personal or no personal experience and is cause of mistakes.

This research replicate two of the experiments of the Tversky,A.,and Kahneman,D 1973, to identify the bias of availability heuristic (Tversky,A.,and Kahneman,D., 1973). From the original paper the tests replicated are the judgment of word and permutation. The permutation test will be the first and is exactly the same to the original paper. The aim is to show that the difference on shape simplicity of find paths or the spreading of the figure, are cues which bias our judgment. The judgment word test is slightly different stimulus but

Step 1: Re-read Report Writing guide: Chapter on Introduction, following key points:

- Coherent argument for your hypothesis
- Rationale behind Experiment
- Hypothesis

Step 2: Read introduction in a published paper, looking for a clear rationale, specific reasons for using the stimuli and methodology, and leading to the hypotheses. (e.g., Guerten et al 2015).

For these reasons, this study was designed to examine whether young children under the age of 7 years old are influenced by the subjective feeling of ease when making their memory judgements. To this end, a paradigm inspired by the one described in Winkielman et al.'s (1998) study was employed…. Specifically, children….were required to retrieve either a small (easy condition) or a large (hard condition) number of first names and then were asked to rate their memory for names.

If participants based assessments of their memory on the ease with which they could generate the requested items (i.e., experienced ease), we predicted that they should judge their memory as worse after reporting many names than after reporting a few names. However, if subjective ease was considered non-diagnostic or was not experienced, or if a more systematic processing strategy was adopted, children might base assessments of their memory on the actual number of generated items (i.e., accessible content). In that case, they should judge their memory as better after reporting many names. Finally, if children did not base assessments of their memory on either of these cues, no difference should be found between the experimental conditions.

> **Commented [MS16]:** •Coherent argument for your hypothesis

> **Commented [MS17]:** Rationale behind Experiment

> **Commented [MS18]:** •Hypothesis

Step 3: Identify the key points in the Report writing guide in the published article (see comments in the paragraph above).

Step 4: Apply this to your own work (see below for example from Level 2A report).

The studies mentioned (e.g., Geurten et al., 2015; Schwartz, 2010; Tversky & Kahneman, 1973) suggest that the availability heuristic underlines one if not the most important factor in decision making. This rule of thumb is potentially biased from personal experience and can lead to errors.

The present research study aims to replicate two of the experiments from the original Tversky,A.,and Kahneman,D 1973, to identify the bias of availability heuristics in undergraduate psychology students in the 21st century. Specifically, the tests replicated are the judgment of word and permutation. The permutation test will be the first and is exactly the same to the original paper. The aim is to show that the differences in shape of a structure (constructed of several short columns or fewer long columns) affects our ability to judge the number of paths. Tversky and Kahnemann argue that the paths are more available in the shape with short columns because these are more distinctive and easier to visualize, which biases our judgment. The judgment of

> **Commented [MS19]:** Coherent argument for your hypothesis

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word frequency uses a slightly different stimuli but follows the same principles of estimating how many words end with ing or –n_. The aim is to demonstrate that ease of recall can bias our ability to judge word frequency.

 the first hypothesis predicts that depending on the shape of the diagram participant will attribute more frequent paths to diagram A, than diagram B. The second hypothesis predicts the group B (----ing.) will be measured more frequent , then group A (---n-).

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Commented [MS20]: Rationale behind Experiment

Commented [MS21]: Hypothesis

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Example 4: Closing the loop…

Comment.. "make sure that you review the relevant studies in the introduction, and discuss them again in the discussion. To demonstrate evaluation, explain the criticisms of the availability heuristics in more detail"

Example from Level 2A report

Introduction

The availability heuristic has been widely criticised as being related to error prone intuitions and irrationality and that this is due to the fact that it often ignores information to enable faster decision making (Gigerenzer, 2011, p. 454; Nevid, 2011, p.234), Shah (2008, p.207) also argues that heuristics are used as they 'save effort', this argument is useful for this study where time limits are set for participants to make judgements about probability and frequency. This study allows comparisons to be made with the research conducted by Tversky and Kahneman and the conclusions drawn.

Discussion

However when considering future research, as Gigerenzer (2011) and Nevid (2011) argued that the availability heuristic is used to make faster decisions, manipulating the length of time given for probability tasks may produce different results.

Step 1: Re-read Report Writing guide: Chapters on Introduction & Discussion following key points:

- Coherent arguments for the hypothesis
- Evaluation and analysis
- Suggestions for future research

Step 2: Read introduction & discussion in a published paper, looking for links between the literature reviewed and literature discussed (Geurten et al., 2015).

Introduction…

From a theoretical point of view, the finding that young children's memory judgements are influenced by the experienced ease of retrieval rather than only by the objective content

of their memory would provide crucial information about the nature of the processes that are involved in decision-making in early childhood. More specifically, it would corroborate the recent findings indicating that metacognitive expectations may already influence judgements in children as young as 4 (Geurten et al., 2015b).

Discussion

….these findings are consistent with the results of other studies which have recently established that the implementation of inference rules, based on subjective experience or metacognitive expectations, to regulate decision-making processes develops very early in childhood (Geurten, Willems, & Meulemans, 2015a; Geurten et al., 2015b; Hembacher&Ghetti, 2014).

Step 3: Identify the key points in the Report writing guide in the published article (see comments in the paragraph above).

Step 4: Apply this to your own work (see below for example from Level 2A report).

Introduction

The availability heuristic has been widely criticised as being related to error prone intuitions and irrationality and that this is due to the fact that it often ignores information to enable faster decision making (Gigerenzer, 2011 Nevid, 2011). Shah (2008) also argues that heuristics are used as they 'save effort', this argument is useful for this study where time limits are set for participants to make judgements about probability and frequency. Gigerenzer (2011) also points out that the application of heuristics can change across the life span and between cultures (see also Mata et al., 2007). Thus, application of the classic Tversky & Kahnemann paradigm to undergraduates in the UK , allows comparisons to be made in a more contemporary setting.

Discussion

However when considering future research, as Gigerenzer (2011) and Nevid (2011) argued that the availability heuristic is used to make faster decisions. Manipulating the length of time given for probability tasks may produce different results. For example, if the time limit was increased for the permutations task, participants may have been more accurate in their path estimations for puzzles A and B.

Acknowledgements

Level 2 Psychology students for use of their reports.

Commented [MS22]: Coherent arguments for the hypothesis

Commented [MS23]: Evaluation and analysis

Commented [MS24]: Coherent arguments for the hypothesis

Commented [MS25]: Evaluation and analysis

Commented [MS26]: Suggestions for future research