# Example of three questions sulman essay

Health & Medicine



# Question One: why it is difficult to distinguish between clinical-decision making errors solely due to intuitive judgment or analytical judgment

It is often difficult to distinguish between clinical decision making errors solely due to intuitive judgment or analytical judgment. The reason is because both systems; that is the analytical and intuitive systems act in tandem most of the time when making judgment. From a functional view point, reasoning commences intuitively. This implies that one interprets environmental information precociously at first. The intuitive system is activated automatically and unconsciously. This automated processing o the environmental information will give rise to one or more solutions from the working memory. The activation of the analytical reasoning will confirm or invalidate the relevance of the possible solutions generated (Jasper, 2011, pp. 53).

Activation of the various systems does not happen as discretely as it is made to sound in the argument above. Contrary to that, when decisions are made in an emergency situation, one can hardly tell what system was used in the decision making (Chaboyer, Elliott & Aitken, 2006, pp. 62). This is especially because of the effect of the information stored in the short-term and longterm memory. When a clinician would make a decision quickly because he had encountered such a situation previously, one might assume that was intuitive reasoning at play. While that could be the case, it could have been analytical thinking using information stored in the short-term memory that is easily accessible. For these reasons, it is difficult tell whether any errors arising are due to intuitive or analytical reasoning.

Question Two: Current literature points to a debate surrounding the https://assignbuster.com/example-of-three-questions-sulman-essay/

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reliability of intuitive clinical reasoning in comparison to the analytical, hypothetico-deductive, process of reasoning. Discuss and debate current findings.

Currently, scholars are caught up on the debate on the reliability of intuitive clinical reasoning as compared to the analytical, hypothetico-deductive process of reasoning. The intuitive clinical reasoning is a reflex, tacit and experiential system that is triggered automatically. This kind of reasoning offers an intuitive response implying that the response is generated without much effort. This is done below the normal threshold of perceptible consciousness. As such, intuitive reasoning is guick and utilizes information that is readily available and particularly through the visual media. Intuitive reasoning operates on the principle of acknowledgment of a typical configuration of similarities or signs with previously experienced similar situations. Using intuitive reasoning, the approach of the physician is at once partial as he only processes part of the information at his disposal. Intuitive reasoning is also holistic as the clinician makes an overall assessment of the prevailing situation. The approach is also approximate as the clinician does not employ rational thought in processing the facts (Gurbutt, 2006, pp. 78). The response generated by intuitive reasoning is to a great extend dependent on the cues available at the time. More importantly, the response is influenced by the affective state in which the individual is. On the other hand, the hypothetico-deductive reasoning is analytical, deliberate and rational. The reasoning comes from a deliberate and rational judgment that is based on the additional information that an individual actively collects in his environment. The decisions following analytical reasoning are a product of a conscious application of the rules that a https://assignbuster.com/example-of-three-questions-sulman-essay/

professional has acquired through learning. As such, analytical reasoning is slow and requires a high demand for cognition. Other scholars argue that both systems are jointly involved in our various cognitive activities. However, it is unclear in what situations that the valence tips towards either of the systems. Preliminary findings from recent studies show that valence tends towards the analytical system when the following situations are indicated: -

- In high-stake outcomes
- When there is ample time
- When uncertainty looms

- When faced with ambiguous, ill-defined and non-routine problems

- In a complex situation

In contrast, those routine problems that are associate with a higher degree of certainty are more often than not dealt with intuitively, more so when time is lacking. As for the reliability of the intuitive reasoning, many researchers points to its unreliability. Although it is time effective, the intuitive system is more prone to errors when compared to the analytical system. This is because of the affective and contextual factors that affect its functioning. Other researchers, especially in psychology have it that various inducements to the analytical reasoning can result in a poorer level of performance due to the considerable cognitive resources that are required to perform analytically (Gambrill, 2012, pp. 56).

# Question Three: Why is clinical reasoning a 'bounded' process? Discuss.

The basis of understanding clinical reasoning and decision making is the information processing theory. The cognitive principle encompasses the

concept of limited or bounded rationality. The theory emphasizes that limits exist in the human capacity to think rationally. To be more precise, there exists a limitation to the amount of information which an individual; can process at a given time. As such, effective problem solving and decision making is the result of one's ability to adapt to these limitations.

## Components of the process of clinical reasoning

- Cue acquisition: involves the obtained to various methods including tests for health assessment and physical examination.

- Hypothesis generation: involves the retrieval of alternative formulations of the problem from memory.

- Cue interpretation: involves the interpretation of the acquired data in light of the alternative problem formulations under consideration.

- Hypothesis evaluation: involves the weighting and combination of data in order to determine whether either of the diagnostic hypotheses under consideration can be confirmed.

However, the process of clinical reasoning is bound or limited by the comparatively small capacity of immediate or short-term memory at work in comparison to the fundamentally infinite capacity of long-term memory. Research has shown that one can only cling to a short-term memory of  $7 \pm 2$ symbols at a time (Mirr Jansen & Zwygart-Stauffacher, 2010, pp. 202). Research has also shown that by chunking information that is pertinent to a certain subject, individuals who are more experienced and knowledgeable in the said subject can make use of their short-term memory more efficiently during reasoning. However, it takes relatively longer to retrieve information that is stored in one's long-term memory compared to the information stored in the short-term memory. Actually, one might need related information to access information in the long-term memory.

Because of the limitations inherent in the working of the short-term memory, clinicians and people in general cannot work efficiently with everything they know or data that is collected about a problem. Given this handicap, data ought to be processed serially. One also needs to select the data very carefully in order to present the clinical problem in the simplest way possible. The simplified representations will enable one to work as rationally as possible. Apart from the limitation of short-term memory on rationality, other potential problems also bind clinical reasoning. One of them includes overemphasizing positive findings (Lyons, 2009, pp. 105).

Regrettably, the easily remembered data is the one that fits the hypothesis generated. As such, the data that contributes to the hypothesis is assigned positive weights at the detriment of the negative findings. It is a pitfall to discount data that does not confirm the favored hypothesis citing the probabilistic relationship between the hypothesis and the evidence. Excessive data collection may result in unclear, irrelevant an at times redundant data that does not add information in statistical or logical grounds. The downside is that this might overload the capacity of the system for rational interpretation of the clinical data.

### References

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