

Journal Paper Summary (25 points total)

Paper Title	The association between risky decision making and attention-deficit/hyperactivity disorder symptoms: A preregistered assessment of need for cognition as underlying mechanism
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1. What do you think the paper is about in layman's terms? What did the research focus on, what did the authors find and what are the main conclusions (if any) [5 points]

Focus of this question
<ul style="list-style-type: none">• This question encourages you to evaluate the arguments, evidence, assumptions, and conclusions about key issues (i.e. think critically about the paper)• This question encourages you to develop your own knowledge, comprehension and conceptual understanding and to connect, synthesize, and/or transform your ideas into a new form (i.e. be a creative thinker and contribute your ideas and thoughts)

Write your answer below:

The paper wanted to look deeper into the link between ADHD and risk-taking behavior. It went deeper to ask questions about the role of "need for cognition" (cognitive load) to try and explain the risky and impulsive behavior often seen in people with ADHD. The study found that there was no link between ADHD, cognitive load, and decision-making behavior. It did find, however, those with higher need for cognition (or lower inattentiveness) were more likely to make risky health-based behaviors.

2. How would you extend the research paper – what new area(s) would you focus the paper on? [5 points]

Focus of this question
<ul style="list-style-type: none">• This question encourages you to develop your own knowledge, comprehension and conceptual understanding and to connect, synthesize, and/or transform your ideas into a new form (i.e. be a creative thinker and contribute your ideas and thoughts)

Write your answer below:

The connection between health-based risky behaviors and lower inattention would be the best place to extend this study. This link tells me there may be factors in this area that could apply better to neurotypical people and may be good to know. This may come from the flawed subset of the population used, as all had ADHD, there was a heavy skew toward female participants (which are known to exhibit different symptoms than men with ADHD), and there was no control group to compare these assumptions to. The paper seemed to emphasize the studies behind their other ADHD questionnaires to eliminate the need for the control group, but the use of their in-house risk-taking questionnaire puts this into question. This study may need to be redone with a control group and perhaps an all-female or all-male participation group to eliminate these biases.

On top of this, there are some concerning omissions that could further alter the integrity of the study. There was no mention of if the specified students were medicated for ADHD during the study. There are many medications that can alter focus patterns and allow an ADHD individual better cognition, such as Vyvanse (lisdexamfetamine), Adderall (dexamphetamine-amphetamine), and Concerta/Ritalin (methylphenidate) (yes, I can list these off from memory; I was a pharmacy technician for two and a half years). These people could also have received neuroplasticity training or ADHD-related therapy, which can help rewire certain pathways against what the normal ADHD brain would exhibit. There is also a significant difference in performance that can be had based on specific interests, or their hyperfixations. Not considering or stating these factors as important really calls the given population and survey answers into question, and thus may need to be redone in order to control these significant external factors.

3. Discuss at least three real-world applications (not mentioned in the paper) that would benefit from the focus of / applications of ideas mentioned in the paper and why?[15 points]

Focus of this question
<ul style="list-style-type: none">• This question encourages you to connect your learning to “real world” issues or life experiences and consider diverse perspectives for the application of concepts in the paper to the real world• This question encourages you to reflect on what you are learning• This question encourages you to contribute your ideas and thoughts• Consider diverse perspectives (gender, political, ethnic, racial, etc) during class or in assignments• Challenges you to develop and present your own knowledge, comprehension, and conceptual understanding

Write your answer below:

1. The given link between need for cognition/inattentiveness with risky medical behavior could show an aversion to medical practice. This claim would need to be investigated further based on the listed issues with the paper and the assumption about the amount of knowledge the participants have about medical practices, however.
2. Cognitive load and need for cognition effect more than just people with ADHD. Overstimulation from autism, lowered cognition from pain overwhelming the systems of people with disabilities like fibromyalgia and rheumatoid arthritis, and people with anxiety disorders or depression clouding their brains could very well benefit from cognition awareness.
3. The idea of effort thresholds was brought up briefly before moving into need for cognition, but a focus on that idea may have been a better direction to emphasize. That focus may have actually been better for the paper overall instead of its focus on cognition itself, as the idea of these walls that need to be climbed to reach the motivation to do more complex actions would fit with the simple versus complex idea exhibited in their experiments and in table 1. This also would not be the first place to bring the idea into the public consciousness, as the anxiety and depression communities have used the “spoons” metaphor of motivation for a while now. It would have also been a better explanation for the alcohol and cigarette risk examples, as the current paper points to it as an easy risk when there are so many hurdles involved to get either of them. Perhaps explaining the motivation needed to jump through those hoops as compared to the large dopamine reward could have better exemplified the risk behavior compared to their current arguments.