

Analysis of Moral Judgements In Adolescents Utilizing the ADC model



Introduction

- Findings of neuroethics have led to new understandings of the thought processes underlying moral quandaries.
- To demonstrate the development of morality in adolescents it would be effective to utilize newer intuition-based models, like the **Agent-Deed-Consequence (ADC) model**
- The **ADC model** postulates three factors of intuitive evaluation for steering one's moral judgment:
 - The **agent(A)** factor revolves around the character of the person performing the action.
 - The **deed(D)** relates to the action the agent is performing,
 - the **consequence(C)** is the direct result of the action being performed.
- The model asserts that each of these processes function as subconscious heuristics that integrate to create a judgement of moral acceptability or unacceptability.
- Recent focuses of neuroethics research have overlooked the developmental phase of morality in favor of representative models for older subjects that can be generalized to the entire population.
- Our pilot study indicated that although adolescents (age 11-14) struggle with comprehension of vocabulary and concepts related to moral judgements, the process is still subconsciously intuitive.

Hypotheses

- We predict that the youngest group of children (age 11/12) will judge scenarios primarily based on the consequence, and that the characterization of the agent will have the least impact on judgment.
- We expect the agent characterization heuristic to develop last.

References

- Dubljević, V., and E. Racine. 2014. The ADC of Moral Judgment: Opening the Black Box of Moral Intuitions with Heuristics about Agents, Deeds and Consequences. *AJOB Neuroscience*, 5(4): 3-20.
- Dubljević, V., Sattler, S., & Racine, E. (2018). Deciphering moral intuition: How agents, deeds, and consequences influence moral judgment. *PLOS ONE*, 13(10).
- Schallenger, M. 1894. *Children's Rights*. Pedagogical Seminary, 3: 87-96.
- Turiel, E. 1983. *The development of social knowledge*. Cambridge: Cambridge University Press.

Methods

- Utilizing this model, we plan to survey twenty adolescents in each class from grades six through twelve.
 - A pilot study of 127 middle school students was conducted and analyzed for areas of survey that need improvement (see below)
- These adolescents will respond to vignettes designed in accordance with the ADC model, and that are deemed appropriate for the age group. (Fig.1,2)
- The survey is estimated to take an average of 1 hour and contains 130 questions
- Demographic questions for subject group include: gender, age, grade level, and socio-economic status
- Preference for Precepts Implied in Moral Theories (PPIMT) were also established as a measure of morality that can be applied to non-expert populations (Fig.3) *In order to maintain validity and improve quality of data an attention check is applied within the survey

Please carefully read the following description of a situation before answering the questions below:

On the way to a high school cafeteria a fourteen year old student named Jordan, who their classmates consider to be friendly, is overheard mentioning they have some extra cash to spend today in the cafeteria. At this school students are often not able to afford food, and go without lunch. Over the weekend, Jordan [**A- a bully / A+ friendly**] had acquired the money by [**D- stealing / D+ earning money**]. In the end, Jordan [**C- Jordan got sick from overeating / C+ due to sharing, no one is hungry**]

Figure 1

Please indicate your level of agreement with the following statement.

Taking all circumstances into consideration...

	not at all	1	2	3	4	5	6	7	8	9	absolutely
For you personally, how morally acceptable is what Jordan did in this situation?	<input type="radio"/>										
For society, how morally acceptable is what Jordan did in this situation?	<input type="radio"/>										

Figure 2

Preferences for Precepts Implied in Moral Theories (PPIMT)

Please read the following endings for the sentence below and indicate your agreement or disagreement:

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Disagree very much	Disagree	Slightly disagree	Neutral/ neither	Slightly agree	Agree	Agree very much

When thinking about what is moral or immoral in a situation, it is important to me whether the involved persons...

- a) ... have good or bad intentions.
- b) ... are helping or harming.
- c) ... cause benefits or costs.
- d) ... have good or bad goals.
- e) ... respect or do not respect certain rules.
- f) ... cause happiness or suffering.
- g) ... respect or do not respect certain obligations.
- h) ... make somebody end up worse or better off.
- i) ... respect or do not respect certain responsibilities.
- j) ... respect or do not respect certain norms.
- k) ... have good or bad aims.
- l) ... have good or bad motives.
- m) ... respect or do not respect certain duties.
- n) ... cause pleasure or pain.
- o) ... have good or bad interests.

Figure 3

Feedback from pilot study

- 127 middle school students (grades 6-8/ age 11-14)
- End of survey comments (Fig. 4) and initial notes taken (Fig. 5)

- To start off, the survey was very good and detailed. But, in the beginning of the survey, my suggestion would be: give a definition of the words that might be confusing to your participants. I think it would be helpful, especially for the younger participants to know what words that are to come. Because what happens is that when people see words they are unfamiliar with, they tend to guess, resulting in rushing. So if you want honest results, maybe let the person have an understanding of what is to come in the survey, and what it really means.
- I did not understand the last 2
- I was sorta confused at the end of the survey but I continued on the best I could.
- I did not understand some of the questions
- For me, some of the questions got confusing, so maybe you can make some of the questions more clear.
- I was having trouble thinking about it especially towards the end since people were making a ton of noise so my choices were only somewhat what i think but close enough.

Figure 4

Focus Areas for Refinement:

1. The PPIMT(Preference for Precepts Implied in Moral Theories) questionnaire needs to be presented in a way that is easier to comprehend and answer.
 - a. The students struggled greatly with this and many did not understand what the questionnaire was asking.
2. Definitions need to be provided for bad moral vs. ethical in a way that increases the reliability of the students answering each question with the same understanding of those concepts throughout.
 - a. Students struggled with these definitions and would become even more confused when they were presented as their antonyms or the words "good" and "bad" were used.
 - b. I realized by the second period that many students did not yet possess these terms in their vocabulary and the ones who did, did not understand the distinction.
3. Need to alter vignettes with clearer distinctions between agent, deed, and consequence.
 - a. Cafeteria vignette confused many because they could not identify specific deed versus consequence *the definition of the word consequence was also an obstacle for many
 - b. A similar issue arose in the drug development but they also didn't seem to fully grasp the scenario

Figure 5