Moral Judgments and Attitudes Predicting Legal and Illegal Stimulant Use

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Abstract

This study examined the relationship between binding and individualizing moral domains and psychostimulant usage. Participants completed self-report measures regarding moral relevance in decision making and legal and illegal stimulant use and attitude. Analyses indicate that increased adherence to individualizing moral relevance domains predict increased likelihood of recent caffeine use, while increased scores in two binding moral relevance domains predict decreased likelihood of recent caffeine use. In addition, one binding moral domain was found to reliably predict past cocaine usage. These findings lead to an expanded understanding of sociomoral influences and motivations concerning stimulant use.

Introduction

PROBLEM:

- There is still overwhelming debate over the morality of stimulant drug use, ranging from everyday stimulants like caffeine to extremely illicit ones like cocaine.
- Little is known about psychological factors that can predict drug use.

SOLUTION:

- Can morality factors predict stimulant use?
- Morality: "prescriptive judgments of justice, rights, and welfare pertaining to how people ought to relate to each other" Turiel (1983, pg. 3).
- There are two basic sub-domains of morality factors:
  - ➢ **Binding**: Social group is basis of morality; binds individuals to rights of duties of group or institution.
    - ✓ Includes foundations of: **Respect for Authority (MFQAuth), In-group Loyalty (MFQLoy), and Purity (MFQPur)**.
  - ➢ **Individualizing**: Individual is basis of morality; teaches individuals to advocate for rights or duties of other individuals
    - ✓ Includes foundations of**: Fairness (MFQFair), Harm to Others (MFQHarm).**
- Binding is more often associated with US political conservatives; Individualizing with US political liberals
- General drug usage is generally associated with politically liberal values, while drug usage condemnation is more associated with politically conservative values.

HYPOTHESIS:

- The more heavily binding foundations (Auth, Loy, and Pure) are weighed when making a moral decision, the less likely it is that stimulant drug usage takes place.
- The more heavily individualizing foundations (Fair, Harm) are weighed when making a moral decision, the more likely it is that stimulant drug usage takes place.

Methods

PARTICIPANTS:

- 300 Participants were asked to complete a self-report survey measure through an online survey platform (the Amazon Mechanical Turk).
- 77 Participants were eliminated who did not pass at least one of two check questions, leaving a total analyzed sample of 223 participants.

MEASURES:

- Self-report measures included:
  - ➢ Past legal and illegal drug use.
  - ➢ Moral Foundations Questionnaire (MFQ): 30 questions spanning 5 moral domains, asking about relevance of each item in participants' own moral decision-making.

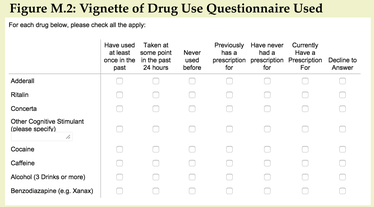
STATISTICAL ANALYSIS:

- SPSS for Macintosh was used for all statistical analyses.
- Each MFQ domain was run in a linear regression analysis against selected drug use statistics.
- Dependent variables analyzed were chosen based on significant response rate:
  - ➢ Ever having used caffeine, a cognitive stimulant (such as Adderall or Ritalin), or cocaine (CaffeineEver, CogStimEver, CocaineEver).
  - ➢ Having used caffeine in the 24 hours immediately prior to survey completion (unable to analyze use of cocaine or cognitive stimulant in 24 hours immediately prior to survey completion due to insignificant response rate).

Figure M.1: Demographic Breakdown of Participants

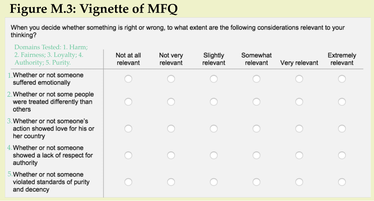
Age:	Race/Ethnicity:	Gender:
Mean: 35yrs Std. Dev.: 12 Yrs Range: 18-88 Yrs	75% White 16% Asian 5% Black 4% Hispanic	107 Female 113 Male 3 Other

Figure M.2: Vignette of Drug Use Questionnaire Used


For each drug below, please check all the apply:

	Have used at least once in the past	Taken at some point in the past 24 hours	Never used before	Previously has a prescription for	Have never had a prescription for	Currently Have a Prescription For	Decline to Answer
Adderall	☐	☐	☐	☐	☐	☐	☐
Ritalin	☐	☐	☐	☐	☐	☐	☐
Concerta	☐	☐	☐	☐	☐	☐	☐
Other Cognitive Stimulant (please specify)	☐	☐	☐	☐	☐	☐	☐
Cocaine	☐	☐	☐	☐	☐	☐	☐
Caffeine	☐	☐	☐	☐	☐	☐	☐
Alcohol (3 Drinks or more)	☐	☐	☐	☐	☐	☐	☐
Benzodiazapine (e.g. Xanax)	☐	☐	☐	☐	☐	☐	☐

Figure M.3: Vignette of MFQ


When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking?

Domains Tested: 1. Harm; 2. Fairness; 3. Loyalty; 4. Authority; 5. Purity

	Not at all relevant	Not very relevant	Slightly relevant	Somewhat relevant	Very relevant	Extremely relevant
1. Whether or not someone suffered emotionally	○	○	○	○	○	○
2. Whether or not some people were treated differently than others	○	○	○	○	○	○
3. Whether or not someone's action showed love for his or her country	○	○	○	○	○	○
4. Whether or not someone showed a lack of respect for authority	○	○	○	○	○	○
5. Whether or not someone violated standards of purity and decency	○	○	○	○	○	○

Results

RESULTS OF REGRESSIONAL ANALYSES:

- **MFQ domain** could **not** significantly predict ever having used a **caffeine** or ever having used a **cognitive stimulant.**
- A **higher MFQPur** score was shown to predict a significantly **lower** likelihood of **past cocaine use.**
- A **higher** score in the **binding domains** of **MFQLoy** and **MFQPur** were shown to predict significantly **higher** likelihood of **caffeine use 24 hours prior** to study completion.
- A **higher** score in the **individualizing domains** of **MFQFair** and **MFQHarm** were shown to predict significantly **higher** likelihood of **caffeine use 24 hours prior** to study completion.

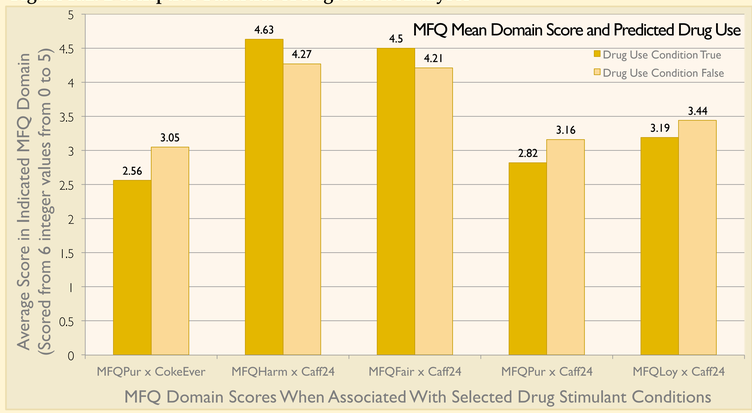
Figure R.1: Descriptive Statistics of Regression Analyses

MFQ Score	Caffeine Ever (CaffEver)	Cognitive Stimulant Ever (CogStimEver)	Cocaine Ever (CokeEver)	Caffeine 24 Hours Prior (Caff24)
Binding:				
-Authority (MFQAuth)	—	—	—	—
-Loyalty (MFQLoy)	—	—	—	Sig: *.031* R^2: *.021* Beta: *-.145*
-Purity (MFQPur)	—	—	Sig: *.031* R^2: *.021* Beta: *-.145*	Sig: *.043* R^2: *.019* Beta: *-.137*
Individualizing:				
-Fairness (MFQFair)	—	—	—	Sig: *.014* R^2: *.027* Beta: *.165*
-Harm (MFQHarm)	—	—	—	Sig: *.004* R^2: *.036* Beta: *.191*

Legend:

- "—" denotes no significant interaction (Sig > .05).
- Sig: Probability that Beta is statistically different from zero (data was considered significant if Sig < .05).
- R^2: Proportion of variance of specified drug usage that can be attributed to the designated MFQ domain score.
- Beta: Standardized value of predicted rise in drug use for every standard deviation increase of specified MFQ domain score, holding all other variables constant.

Figure R.2: Descriptive Statistics of Regression Analyses



Discussion and Conclusions

- These data indicate that increased endorsement of the **binding** foundations of **loyalty** and **purity** can successfully predict the likelihood of **caffeine abstinence in the past 24 hours**.
  - ➢ This indicates that perhaps caffeine intake is more **readily avoided** among those who value the concept of **purity**, due to the cognitive state modification that caffeine induces.
- This concept could similarly be applied to those who value loyalty: those who do not use caffeine remain loyal to their belief that caffeine should not be used (e.g. diet or religious belief).
- These data also indicate that increased endorsement of the **individualizing** foundations of **fairness** and **harm** can successfully increase the likelihood of **caffeine use in the past 24 hours.**
  - ➢ Those who are **more invested in the harm and fairness** aspects of decision-making may **also ruminate on the harm and fairness** of any given action more frequently, leading them to conclude through constant rumination caffeine use is not worth avoiding for them.
- These data indicate that **no moral foundation** endorsement can predict **past caffeine use** or **past cognitive stimulant** use. This could be due to three major social constructs:
  - ➢ Personal mores **change over time**, and what could have once been deemed acceptable in one's life (e.g. Ritalin use to study for a test once in college) may no longer have been considered so at the time of study participation.
  - ➢ Caffeine is so **widely available** that it can be difficult *not* to use it. Although cognitive enhancers are illegal to use without a prescription, it can be very simple to just borrow one from a friend.
  - ➢ Often, people try something **just once or twice**. Single use or instance is seldom a quality indicator.
- These data indicate that **no moral foundation** endorsement can predict **past cocaine use**, **except** for that of **purity**.
  - ➢ Out of the five moral foundations, **purity** is the perhaps the **most culturally constructed**—definitions of what is morally pure can vary from nation to nation, religion to religion, and even family to family.
  - ➢ Since all of the subjects tested were located in the United States, most probably adhered to the **American cultural construct** that **cocaine is bad**, and is **therefore not used** unless you're a druggie—regardless of why it may actually be bad for you ("harm") or that it's blatantly illegal ("authority").
  - ➢ This also (and perhaps most importantly) indicates that the **primary reason** that people **refrain from cocaine use** is **not because they know it'll hurt them** ("harm") **or because it's against the law** ("authority"), but **because it is seen as something generally tainting and grimy**. Perhaps this can suggest a **different approach** in **encouraging** adolescents and young adults to **abstain from cocaine use**.

Future Steps

- An experimental design **controlling for caffeine use,** in order to see if it's actually the use of caffeine itself that affects self-reported moral foundations, or vice versa (as interpreted in this study).
- Testing for variables that are **more time-range-specific** (used in the past week, past month, past year, etc.) in order to see if moral foundations can predict drug use in a less abstract time frame than "ever."
- Expand the study to **other countries and cultures** outside of the United States, in order to better understand the **construction of purity and other moral attitudes** surrounding legal and illegal stimulant use.
  - ➢ Perhaps individuals in a more binding culture than the US will be more affected by and respectful of drug laws (authority) than individuals in the United States, and MFQAuth will be a better predictor of past cocaine use than MFQPur.

References

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