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Assessed Coursework Cover Sheet for Applied Psychology Postgraduate Courses

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Coursework Title: Are sensational interests examples of everyday sadism, or a general indicator of antagonism?

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Research paper in the style of: Personality and Individual Differences

This is to confirm that I submit this piece of assessed work in the full knowledge of the published guidelines on plagiarism and its consequences

Type name: Charlotte Weatherill

Contents page

Ethics application and project proposal.....	3
Ethical approval letter	28
Research paper	29
Abstract.....	29
Introduction.....	30
Method.....	35
Results.....	38
Discussion.....	41
References.....	47
Appendices.....	53
Executive summary	64
PowerPoint slides.....	68
Reflective report	69

Application form

Application for approval of all studies involving **Healthy Human Participants only conducted by Staff and Students of the University of Nottingham which don't involve an invasive procedure**

1 Title of Project: Are sensational interests examples of everyday sadism, or a general indicator of antagonism?

Short title for use in footers of documents (ie Dynamic study): everyday sadism and sensational interests

2 Names, Qualifications, Job Title, School/Divisional/Unit/Address, email of all Researchers: Charlotte Weatherill

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Chief Academic/Supervisor: Dr Vincent Egan

Other key researchers/collaborators:

Students name and course: *Charlotte Weatherill. Forensic and Criminological Forensic MSc*

For UG and PGT include the name of the course and the expected purpose and learning outcomes of the course.

3 Type of Project:

Masters Student project (Forensic and criminological psychology MSc)

Questionnaire-based study

4 Location of study: Online

Start date: January 2019

End date: May 2019

Length of study: Four months

5 Description and number of participants to be studied: The participants to be studied will be adults above the age of 18. The researcher will aim to recruit at least 90 participants based on G*Power recommendation.

6 Summary of Experimental Protocol - Please give details below (no longer than this side of A4) under the following headings: - 1. Background. 2. Aims (to include hypothesis to be tested Primary and secondary endpoints), 3. Research protocol and methods, 4. Measurable end points/statistical power of the study. 5. Key references.

Background

Given the interest in true crime, guns and the violent-occult, it is important to investigate the extent to which these interests are prevalent in not just sexually sadistic murderers, but less extreme members of the general population. Sensational interests refer to military, 'esoteric' and Gothic interests and have found to be associated with criminal offending (Charles & Egan, 2009). However, these topics do not only appeal to sadistic murderers and a large proportion of entertainment includes 'sensational'

content which is enjoyed by the general population (Egan, Austin, Elliot, Patel, & Charlesworth, 2010). It has been suggested that sensational intererests are actually underpinned by pathological facets of personality (Egan, Charlesworth, Richardson, & Blair, 2001).

Research has since suggested that the dark triad should be extended to include sadism, forming the dark tetrad (Chabrol, Van Leeuwen, Rodgers, & Séjourné, 2009). Sadism refers to the enjoyment or pleasure in other people's distress or harm (Baumeister & Campbell, 1999). However, not all sadism is sexual and it has been suggested that there are many forms of non-sexual, subclinical sadism that are prevalent in modern culture, this being termed 'everyday sadism' (Buckels, Jones, & Paulhus, 2013). Everyday sadism has been linked to sensational interests. Both sensational interests and everyday sadism are based on a foundation of low agreeableness (Egan & Campbell, 2009; Paulhus & Williams, 2002).

Aims

The study aims to replicate and build upon the existing literature surrounding sensational interests by examining the characteristics that are associated with the dark tetrad whilst taking basic personality disposition into account. It will be hypothesised that sensational interests will indicate general antagonism (low agreeableness) rather than everyday sadism.

Research protocol and methods

Participants will be adults aged 18-65 who will take part in an online questionnaire survey. The study will be advertised on social media where participants will click on the link to the study to begin. They will read through an information sheet about the study before reading a consent form and continuing with the study. The questionnaires will include the Sensational Interests Questionnaire (SIQ) to measure violent and unusual interests, the Short Dark Tetrad (SD4) to measure aspects of personality relating to the dark tetrad, the HEXACO PI-R test of personality and the Balanced Inventory of Desirable Responding Short Form (BIDR-16) due to the self-report nature of the study. No personal details will be included in the study and participants will be debriefed upon completion. The study will run from February until May 2019 with the results being analysed from June. Results will be analysed on SPSS using multiple regression.

Measurable end points/statistical power of the study

See section 5 regarding sample size; the key end point is whether measures of the SD4 and particularly the sadism subscale, is associated with scores on the SIQ

Key references

- Egan, V., Auty, J., Miller, R., Ahmadi, S., Richardson, C., & Gargan, I. (2008). Sensational interests and general personality traits. *The Journal of Forensic Psychiatry*, 10(3), 567-582.
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- Lee, K., & Ashton, M. (2004). Psychometric properties of the HEXACO Personality Inventory. *Multivariate Behavioural Research*, 39(2), 329-358.
- Paulhus, D., Buckels, E., Trapnell, P., & Jones, D. (June 2018). Introducing the short Dark Tetrad (SD4). *Presented at the meeting of the International Conference for Applied Psychology*.

7 Lay Summary of project

The project aims to examine the personality foundations of the dark tetrad (narcissism, subclinical psychopathy, Machiavellianism, and sadism) and sensational interests (violent and unusual interests) whilst taking into account social desirability. The study will be an online survey for people between the ages of 18-65, including four different questionnaires that participants will fill out in their own time. Results from the questionnaires (sensational interests, the dark tetrad, general personality traits and social desirability). Results will be analysed and compared against previous literature, testing that sensational interests are more likely to indicate general antagonism (low agreeableness) rather than everyday sadism.

8 Will written consent be obtained from all volunteers? Yes

Participants will be shown a consent form at the start of the study that will explain that by continuing with the study, they are giving their consent.

9 Will an inconvenience allowance be offered No

10 FUNDING

11 Studies involving NHS Staff, organisations, Services

Does the study involve any premises, services staff who hold a contract with a hospital, Primary Healthcare or Social Care Trust?

No

12 How will the subjects be chosen?

Participants will be recruited online and opt-in through social media, seeing adults between the ages of 18-65.

13 Describe how possible participants will be approached.

The study will be advertised online, and so participants will have the choice to take part or not.

The Researcher will create the study online → The study will be advertised on social media → participants will click on the link to bring up the study and fill out the questionnaire after reading the information sheet and consent form. If persons give consent, they will complete the scales, and then receive a debriefing. The entire project is mediated electronically once launched by the researcher.

14 What sources of information will be included? i.e, pre-existing research database, student records, visits to other organisation, online resource

See Appendices

15 Whose permission will be sought to access this information (eg GP, consultant Head of Organisation)?

N/A

16 For interview/focus groups:

N/A

17 Data Storage and Data management

Data will be collected online and stored on the Bristol Online Survey website until it is exported for analysis. It will be stored on the primary researchers' own device until the completion of the study. The data will only be handled by the primary researcher and supervisor. There will be no identifiable personal information gathered by the study and so each person's responses will remain anonymous. The researcher and supervisor will be responsible for the data.

18 What ethical problems do you foresee in this project?

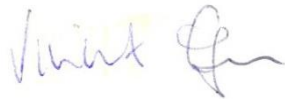
Potential ethical problems include the sensitivity of the content of the questionnaires. Though no question asks for in depth answers, some questions require participants to be introspective and think about themselves in ways that they may not have previously. Some questions also ask about violent topics such as interests in guns and horror films. Some participants may find the content distressing and so it will be made clear that they have the right to withdraw at any point during the study and contact numbers will be given at the end of the study for people who have any concerns or questions.

18. What are the possible limitations of the proposed design of this study?

Possible limitations of the study are that participants may become overwhelmed with the amount of questions in the study and so might not give true answers or may terminate the study prematurely.

DECLARATION: I will inform the Medical School Ethics Committee as soon as I hear the outcome of any application for funding for the proposed project and/or if there are any significant changes to this proposal. I have read the notes to the investigators and clearly understand my obligations as to the rights, welfare and dignity of the subjects to be studied, particularly with regard to the giving of information and the obtaining of consent.

Signature of Lead Investigator (supervisor : MSc student Charlotte Wetherill will conduct the research):



Vincent Egan, Associate professor in Forensic Psychology Practice.

Date: 28 January 2019

****Nb If you are student your supervisor must sign this form otherwise it will be rejected
Name and address for correspondence with applicant:**

Dr Vincent Egan

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Please submit your completed application to:

Administrative Support

Faculty of Medicine & Health Sciences Research Ethics Committee

c/o Faculty PVC Office

B Floor, Medical School (nr Bridge)

QMC Campus, Nottingham University Hospitals

Nottingham

NG7 2UH

e-mail: louise.sabir@nottingham.ac.uk

Are sensational interests examples of everyday sadism, or a general indicator of antagonism?

Overview

Sensational interests:

Given the broad interest in true crime, aggressive activities, and the violent-occult, it is important to investigate what such a curiosity means in psychological terms, as the interests are not just prevalent in sexually sadistic murderers, but less extreme members of the general population also (Egan et al, 1999). Sensational interests refer to military, 'esoteric' and Gothic interests and have been found to be associated with criminal offending (Charles & Egan, 2009). Gonzalez and Greitemeyer (2018) found that sensational interests also denote a curiosity for violence and the macabre (conspiracy theories). However, these topics do not only appeal to sadistic murderers and a large proportion of entertainment includes 'sensational' content which is highly successful (Egan, Austin, Elliot, Patel, & Charlesworth, 2010). Sensational interests, need to be understood in the context of other psychological qualities, and it has been found that sensational intererests are actually underpinned by pathological facets of personality (Egan, Charlesworth, Richardson, & Blair, 2001). Weaver (1991) likewise found a modest but consistent association between sensational interests and extreme personality traits. However, sensational interests are not themselves pathological; Charles and Egan (2009) found that certain personality traits (in particular low agreeableness) were more likely to predict delinquency rather than sensational interests alone. In a study conducted by Egan et al. (2010), it was found that those high on the 'antisocial' factor (primarily defined by low agreeableness and low conscientiousness) were more interested in

'violent-occult' and militaristic topics. Agreeableness and conscientiousness are two basic antagonistic traits, though there are a number of others captured by other personality assessments; this study examines if these other measures of personality are associated with sensational interests in a more specific way.

Dark triad and everyday sadism:

It has been suggested that sadism should be added to the dark triad, forming a dark tetrad (Chabrol, Van Leeuwen, Rodgers, & Séjourné, 2009). Sadism is defined as finding enjoyment or pleasure in other people's distress or harm (Baumeister & Campbell, 1999). Research surrounding sadism is generally concerned with sexual sadism (for example sadism in sexual offenders, sexual sadism at a subclinical level, or an interest in BDSM (bondage-discipline, domination-submission, and sadomasochism (Hébert & Weaver, 2014))). However, not all sadism is sexual. Paulhus and Dutton (2016) suggest that sadism is a common behaviour with evolutionary roots. They also suggest that there are many expressions of non-sexual, subclinical sadism in modern culture, which they termed 'everyday sadism' (Buckels, Jones, & Paulhus, 2013). Everyday sadism is reflected in everyday cruelty for example watching violence on TV or films, or aggressive combat sports (Baumeister & Campbell, 1999).

Greitemeyer (2015) found everyday sadism to be associated with amount of violent video game exposure an individual had and suggested that everyday sadists use video games to satisfy their need for cruelty. This study found that of the dark tetrad, sadism has the most robust association with amount of violent video game play. Further research suggested that everyday sadists play violent video games to satisfy their interest in weapons (Gonzalez & Greitemeyer, 2018). Evidence of sadistic characteristics has been found in normal high school

students, with these tendencies being able to predict delinquent behaviours beyond the dark triad (Chabrol, Van Leeuwen, Rodgers, & Séjourné, 2009). In relation to sensational interests, the dark triad has found to be associated with violence, with psychopathy in particular being correlated with unprovoked violence (Westhead & Egan, 2015). James et al. (2014) found higher levels of the dark triad (specifically psychopathy) to be associated with greater sensational interests and higher levels of *schadenfreude* (pleasure from others' misfortune). However, Haggart-Johnson and Egan (2010) found that self-reported sadistic personality disorder was not specifically associated with sensational interests, though was predicted by normal personality traits. Paulhus and Williams (2002) found disagreeableness to be the only common Big Five trait to correlate with the dark triad, specifically a high sadism score, while Carton and Egan (2017) also showed that low agreeableness was able to predict physical abuse, as was found for physical aggression (Egan & Campbell, 2009). Another study found that only those with a high sadism score would aggress against an innocent person (Buckels, Jones, & Paulhus, 2013). With this in mind, it is important to investigate the relationship between the dark tetrad and personality traits specifically in relation to sensational interests.

The present study:

The present study aims to replicate and build upon previous research of sensational interests and the dark tetrad. It will aim to identify which aspects of the dark tetrad sensational interests are associated with whilst taking basic personality disposition into account. Based on previous research (Paulhus & Williams, 2002), it will be hypothesised that sensational interests will indicate general antagonism (low agreeableness) rather than everyday sadism.

Method

Participants

Participants will be recruited through social media to take part in a number of existing questionnaires. Participants will be adults aged 18 and over from the general population. A G*Power calculation was used, with an effect size of 0.2, an Alpha value of 0.05 and a statistical power of 0.95. The recommended sample size produced was 90 (Faul, Erdfelder, Buchner, Lang, & AG, 2009). The study will aim to avoid participant bias by including a social desirability scale in the study.

Procedure

Upon being approved by the University of Nottingham's School of Medicine ethics committee, the study will be advertised on social media platforms. Participants will click on the link to bring up the study and complete the questions in their own time. Before completing the questionnaires, participants will read an information sheet as well as being informed that by continuing with the study they are giving their consent. No personal details will be included in the study and IP addresses will not be recorded to guarantee anonymity. At the end of the study, participants will be thanked and debriefed to explain the purpose of the research. The study will be conducted online due to the ease of distribution and reaching as many people as possible. Results from the questionnaires will be analysed using multiple regression.

Measures

The questionnaires used will look at five main areas: demographic and background questions (including gender, age and years of education),

sensational interests questionnaire (SIQ), dark tetrad questionnaire (DTET), basic personality disposition (HEXACO PI-R), and a social desirability questionnaire (BIDR-16). All scales are valid and reliable test instruments.

Personality questionnaire

The 60-item HEXACO personality inventory- revised (Lee & Ashton, 2004) will be used to assess six main personality features: honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, and openness to experience (Ashton & Lee, 2009). The short version of this questionnaire will be used to avoid participant overburden.

Sensational Interests Questionnaire (SIQ)

The SIQ will be used to measure violent and unusual interests. The questionnaire includes questions surrounding five main areas: militarism, the violent-occult, intellectual interests, and three filler scales; paranormal credulousness, and wholesome activities (Egan et al., 2008).

The Short Dark Tetrad (SD4)

The SD4 will be used to measure aspects of personality relating to the dark tetrad: narcissism, psychopathy, Machiavellianism and sadism. The 28-item scale uses a 5-point likert scale to look at the four traits (Paulhus, Buckels, Trapnell, & Jones, 2018) The study will use the short version of this questionnaire in order to avoid participation overburden.

Social desirability measure (BIDR-16)

The Balanced Inventory of Desirable Responding Short Form (BIDR-16) will be used due to the self-report nature of the study. The 16-item questionnaire will be used to assess the tendency to give socially desirable

responses (Hart, Ritchie, & Hepper, 2015) by investigating self-deceptive enhancement (the tendency to give honest but positively biased reports) and impression management (the tendency to give inflated self-descriptions).

Data Analysis

Scales will be tested for reliability and basic correlation with each other. Assuming that the results are normally distributed, have no multicollinearity and are homoscedastic, the researcher will then use SPSS to run regressions seeking to predict scores on the SIQ from the stepwise entry of the HEXACO, DTET and BIDR-16, so controlling for the correlations these measures may have with each other to start with. Incremental statistical significance with the entry of each block will be tested.

Timescale

The researcher will aim to have the study running by February 2019. The study will run for four months with the results being analysed from June 2019.

References

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Appendices

Appendix A: SIQ

Instructions

Please read through the list of interests below. For each item please indicate how much you like it or how interested you are in it.

The responses you may select are:

-2 *Great dislike* **-1** *Slight dislike* **0** *No opinion* **+1** *Slight like* **+2** *Great like*

1 Alternative medicine (herbal remedies, acupuncture, homeopathy)

-2 **-1** **0** **+1** **+2**

2 Astrology (star signs, horoscopes)

-2 **-1** **0** **+1** **+2**

3 Black magic

-2 **-1** **0** **+1** **+2**

4 Body-building

-2 **-1** **0** **+1** **+2**

5 Camping

-2 **-1** **0** **+1** **+2**

6 Country and hill-walking

-2 **-1** **0** **+1** **+2**

7 Crossbows, knives & swords

-2 **-1** **0** **+1** **+2**

8 Drugs

-2 **-1** **0** **+1** **+2**

9 Fishing

-2 **-1** **0** **+1** **+2**

10 Flying saucers

-2 **-1** **0** **+1** **+2**

11 Foreign travel

	-2	-1	0	+1	+2
12 Gardening					
	-2	-1	0	+1	+2
13 Guns and shooting					
	-2	-1	0	+1	+2
14 Martial arts (karate, kung fu etc.)					
	-2	-1	0	+1	+2
15 Medicine					
	-2	-1	0	+1	+2
16 SAS (commandos, paramilitaries, navy seals)					
	-2	-1	0	+1	+2
17 Motorbikes					
	-2	-1	0	+1	+2
18 Paganism (spirits of animals, trees etc. rituals at Stonehenge)					
	-2	-1	0	+1	+2
19 Philosophy (thinking about why we are here and why we do things)					
	-2	-1	0	+1	+2
20 Psychology and psychiatry					
	-2	-1	0	+1	+2
21 Singing and making music					
	-2	-1	0	+1	+2
22 Sporting activities					
	-2	-1	0	+1	+2
23 Survivalism (surviving in the wild, self-preservation, self-reliance)					
	-2	-1	0	+1	+2
24 Tattoos and body-piercing (including branding)					
	-2	-1	0	+1	+2
25 The armed forces					
	-2	-1	0	+1	+2
26 The environment					

	-2	-1	0	+1	+2
27 The paranormal (telepathy, psychic powers, miracles)					
	-2	-1	0	+1	+2
28 Vampires and werewolves					
	-2	-1	0	+1	+2

Appendix B: SD4

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

FOUR IDENTITIES QUESTIONNAIRE (SD4)

Rate your agreement with each statement using a 5-point scale:

IDENTITY 1: "CRAFTY"

1. It's not wise to let people know your secrets.
2. Whatever it takes, you must get the important people on your side.
3. Avoid direct conflict with others because they may be useful in the future.
4. Keep a low profile if you want to get your way.
5. Manipulating the situation takes planning.
6. Flattery is a good way to get people on your side.
7. I love it when a tricky plan succeeds.

IDENTITY 2: "SPECIAL"

8. People see me as a natural leader.
9. I have a unique talent for persuading people.
10. Group activities tend to be dull without me.
11. I know that I am special because people keep telling me so.
12. I have some exceptional qualities
13. I'm likely to become a future star in some area.
14. I like to show off every now and then.

IDENTITY 3: "WILD"

15. People often say I'm out of control.
16. I tend to fight against authorities and their rules.
17. I'm tempted to punch people who anger me.
18. I tend to dive in, then ask questions later.
19. I've been in trouble with the law.
20. I sometimes get into dangerous situations.
21. People who mess with me always regret it.

IDENTITY 4: "MEAN"

22. Watching a fist-fight excites me.
23. I really enjoy violent films and video games.
24. It's funny when idiots fall flat on their face.
25. I enjoy watching violent sports.

26. Some people deserve to suffer.
27. I like to troll people on internet sites.
28. I know how to hurt someone with words alone.

DIRECTIONS

On the following pages you will find a series of statements about you. Please read each statement and decide how much you agree or disagree with that statement. Then write your response in the space next to the statement using the following scale:

- 5 = strongly agree*
- 4 = agree*
- 3 = neutral (neither agree nor disagree)*
- 2 = disagree*
- 1 = strongly disagree*

Please answer every statement, even if you are not completely sure of your response

- 1 _____ I would be quite bored by a visit to an art gallery.
- 2 _____ I plan ahead and organize things, to avoid scrambling at the last minute.
- 3 _____ I rarely hold a grudge, even against people who have badly wronged me.
- 4 _____ I feel reasonably satisfied with myself overall.
- 5 _____ I would feel afraid if I had to travel in bad weather conditions.
- 6 _____ I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed.
- 7 _____ I'm interested in learning about the history and politics of other countries.
- 8 _____ I often push myself very hard when trying to achieve a goal.
- 9 _____ People sometimes tell me that I am too critical of others.
- 10 _____ I rarely express my opinions in group meetings.
- 11 _____ I sometimes can't help worrying about little things.
- 12 _____ If I knew that I could never get caught, I would be willing to steal a million dollars.
- 13 _____ I would enjoy creating a work of art, such as a novel, a song, or a painting.
- 14 _____ When working on something, I don't pay much attention to small details.
- 15 _____ People sometimes tell me that I'm too stubborn.
- 16 _____ I prefer jobs that involve active social interaction to those that involve working alone.
- 17 _____ When I suffer from a painful experience, I need someone to make me feel comfortable.
- 18 _____ Having a lot of money is not especially important to me.
- 19 _____ I think that paying attention to radical ideas is a waste of time.
- 20 _____ I make decisions based on the feeling of the moment rather than on careful thought.

- 21 _____ People think of me as someone who has a quick temper.
- 22 _____ On most days, I feel cheerful and optimistic.
- 23 _____ I feel like crying when I see other people crying.
- 24 _____ I think that I am entitled to more respect than the average person is.
- 25 _____ If I had the opportunity, I would like to attend a classical music concert.
- 26 _____ When working, I sometimes have difficulties due to being disorganized.
- 27 _____ My attitude toward people who have treated me badly is "forgive and forget".
- 28 _____ I feel that I am an unpopular person.
- 29 _____ When it comes to physical danger, I am very fearful.
- 30 _____ If I want something from someone, I will laugh at that person's worst jokes.
- 31 _____ I've never really enjoyed looking through an encyclopaedia.
- 32 _____ I do only the minimum amount of work needed to get by.
- 33 _____ I tend to be lenient in judging other people.
- 34 _____ In social situations, I'm usually the one who makes the first move.
- 35 _____ I worry a lot less than most people do.
- 36 _____ I would never accept a bribe, even if it were very large.
- 37 _____ People have often told me that I have a good imagination.
- 38 _____ I always try to be accurate in my work, even at the expense of time.
- 39 _____ I am usually quite flexible in my opinions when people disagree with me.
- 40 _____ The first thing that I always do in a new place is to make friends.
- 41 _____ I can handle difficult situations without needing emotional support from anyone else.
- 42 _____ I would get a lot of pleasure from owning expensive luxury goods.
- 43 _____ I like people who have unconventional views.
- 44 _____ I make a lot of mistakes because I don't think before I act.
- 45 _____ Most people tend to get angry more quickly than I do.
- 46 _____ Most people are more upbeat and dynamic than I generally am.
- 47 _____ I feel strong emotions when someone close to me is going away for a long time.
- 48 _____ I want people to know that I am an important person of high status.
- 49 _____ I don't think of myself as the artistic or creative type.
- 50 _____ People often call me a perfectionist.
- 51 _____ Even when people make a lot of mistakes, I rarely say anything negative.
- 52 _____ I sometimes feel that I am a worthless person.
- 53 _____ Even in an emergency I wouldn't feel like panicking.

- 54 _____ I wouldn't pretend to like someone just to get that person to do favours for me.
- 55 _____ I find it boring to discuss philosophy.
- 56 _____ I prefer to do whatever comes to mind, rather than stick to a plan.
- 57 _____ When people tell me that I'm wrong, my first reaction is to argue with them.
- 58 _____ When I'm in a group of people, I'm often the one who speaks on behalf of the group.
- 59 _____ I remain unemotional even in situations where most people get very sentimental.
- 60 _____ I'd be tempted to use counterfeit money, if I were sure I could get away with it.
- _____

Appendix D: BIDR-16

Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it.

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7

Not True

Somewhat True

Very True

1. I have not always been honest with myself
2. I always know why I like things.
3. It's hard for me to shut off a disturbing thought.
4. I never regret my decisions.
5. I sometimes lose out on things because I can't make up my mind soon enough.
6. I am a completely rational person.
7. I am very confident of my judgments.
8. I have sometimes doubted my ability as a lover.
9. I sometimes tell lies if I have to.
10. I never cover up my mistakes.
11. There have been occasions when I have taken advantage of someone.
12. I sometimes try to get even rather than forgive and forget.
13. I have said something bad about a friend behind his or her back.
14. When I hear people talking privately, I avoid listening
15. I never take things that don't belong to me.
16. I don't gossip about other people's business.

Information and Consent page for an Online Survey/Questionnaire

**School of Medicine, Division of Applied Psychology, Centre of Forensic and Family Psychology
Yang Fujia Building
Jubilee Campuss
Wollaton Road
NG8 1BB**

Sensational interests and the dark tetrad

[Insert name of REC] Research Ethics Ref:

General Information

Thank you for your interest in taking part in this online survey. You have been invited to participate as you are aged between 18-65. Please read through this information before agreeing to participate by ticking the 'yes' box below.

This study is being done by Charlotte Weatherill from the University of Nottingham and Dr Vincent Egan (supervisor). We are investigating the relationship between aspects of personality and sensational interests. Sensational interests are things like the paranormal, outdoors activities, the military, or unusual belief systems

You will be given some information to read, and then answer a number of questionnaires. It should take you about 20 minutes to complete the survey, which has a total of 132 questions. No background knowledge is required. The information gather in this research will be used to develop a clearer understanding of the relationship between sensational interests, and different aspects of personality.

How will your data be used?

Your answers will be completely anonymous and we do not gather any information that can link your answers to you personally. Your participation in this study is entirely voluntary. You can withdraw at any point during the questionnaire for any reason, before submitting your answers by clicking the Exit button/closing the browser. The data will only be uploaded on completion of the questionnaire by clicking the SUBMIT button. You are free to omit any question.

Your data will be stored in a password-protected file and may be used in academic publications. Your IP address will not be stored. All questions are optional.

The data that we collect from you may be transferred to, and stored or processed at, a destination outside of the European Economic Area (EEA). By submitting your personal data, you agree to this transfer, storing or processing.

Who will have access to your data?

The University of Nottingham is the data controller for the purposes of the Data Protection.

We believe there are no known risks associated with this research study; however, as with any online related activity the risk of a breach is always possible. We will do everything possible to ensure your answers in this study will remain anonymous. We will minimize any risks by not including any personal information.

The results of the study may be published in scientific journals and presented at scientific conferences. The data will be reported anonymously, with any identifying information removed.

If you have any questions about this project, you may contact the Lead Researcher Charlotte Weatherill or if you have any concerns about any aspect of this study please contact the Research Supervisor: Dr Vincent Egan. If you remain unhappy and wish to complain formally, you should then contact the FMHS Research Ethics Committee Administrator, c/o The University of Nottingham, Faculty PVC Office, B Floor, Medical School, Queen's Medical Centre Campus, Nottingham University Hospitals, Nottingham, NG7 2UH. E-mail: FMHS-ResearchEthics@nottingham.ac.uk

This study has been reviewed and given a favourable opinion by the University of Nottingham, Faculty of Medicine & Health Sciences Research Ethics Committee (insert FMHS REC ref no here].

I have read and understood the above information and consent form, I confirm that I am 18 years old or older and by clicking the NEXT button to begin the online questionnaire, I indicate my willingness to voluntarily take part in the study.

NEXT – I consent to take part EXIT - I do not give consent

Consent form (on a separate page) including Title, names of researchers, School and division address + Ethics ref no

Thank you for participating!

Please, tick each box to continue:

- ☐ I confirm that I have read and understood the information on the previous page
- ☐ I am 18 years old and/or older
- ☐ I understand that my participation is voluntary and I can end the study at any time and withdraw my data by clicking the EXIT button .
- ☐ I understand that my answers will be anonymous.
- ☐ I understand the overall anonymized data from this study may be used in the future for research (with research ethics approval) and teaching purposes.

NEXT – to be taken to the survey.

Debrief

Are sensational interests examples of everyday sadism, or a general indicator of antagonism?

Thank you for your participation in this study.

The aims of the study are to examine the personality foundations of the dark tetrad (narcissism, subclinical psychopathy, Machiavellianism, and sadism) and sensational interests (violent and unusual interests) whilst taking into account social desirability. The study is not suggesting that people are sadists, but examining the concepts and their associations to see if they hold up to normal assessment. It is predicted that sensational interests will indicate general antagonism (low agreeableness) rather than everyday sadism.

No personal details will be included in the stored data and your answers will remain completely anonymous.

If you have any further questions or concerns, please do not hesitate to get in contact either through:

charlotte.weatherill@nottingham.ac.uk

or

vincent.egan@nottingham.ac.uk

Thank you again for your participation.

Further reading:

Egan, V., Auty, J., Miller, R., Ahmadi, S., Richardson, C., & Gargan, I. (2008). Sensational interests and general personality traits. *The Journal of Forensic Psychiatry*, 10(3), 567-582.

Sensational Interests: https://link.springer.com/referenceworkentry/10.1007%2F978-3-319-32132-5_379-2

Everyday sadism: <https://www.psychologytoday.com/gb/blog/fulfillment-any-age/201503/10-ways-spot-everyday-sadist>



**University of
Nottingham**
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Email: FMHS-ResearchEthics@nottingham.ac.uk

**Faculty of Medicine & Health Sciences
Research Ethics Committee**

c/o Faculty PVC Office
School of Medicine Education Centre
B Floor, Medical School
Queen's Medical Centre Campus
Nottingham University Hospitals
Nottingham, NG7 2UH

25 March 2019

Charlotte Weatherill
MSc Student - Forensic and Criminological Psychology
c/o Dr Vince Egan
Associate Professor of Forensic Psychology Practice
Centre for Family and Forensic Psychology
Psychiatry and Applied Psychology
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Dear Ms Weatherill

Ethics Reference No: 253-1902– please always quote	
Study Title: Are sensational interests examples of everyday sadism, or a general indicator of antagonism?	
Chief Investigator/Supervisor: Dr Vince Egan, Associate Professor of Forensic Psychology Practice/Director of MSc Forensic Psychology by Research, Division Psychiatry and Applied Psychology	
Lead Investigators/student: Charlotte Weatherill, MSc – Forensic and Criminological, School of Medicine	
Proposed Start Date: 01/01/2019	Proposed End Date: 31/05/2019

Thank you for submitting the above application and the following documents were received:

- FMHS REC Application form and supporting documents version 1.0: 13.11.2018

These have been reviewed and are satisfactory and the study has been given a favourable opinion.

A favourable opinion has been given on the understanding that:

1. The protocol agreed is followed and the Committee is informed of any changes using a notice of amendment form (please request a form).
2. The Chair is informed of any serious or unexpected event.
3. An End of Project Progress Report is completed and returned when the study has finished (Please request a form).

Yours sincerely

Professor Ravi Mahajan
Chair, Faculty of Medicine & Health Sciences Research Ethics Committee

Are sensational interests examples of everyday sadism, or a general indicator of antagonism?

Abstract

The present study used an online survey of self-report questionnaires to examine general personality traits (assessed using the HEXACO Personality Inventory- Revised) and the Dark Tetrad (narcissism, Machiavellianism, psychopathy, and sadism) in relation to sensational interests, looking specifically at the violent occult and militarism subscales. It was hypothesised that both subscales of sensational interests would be predicted by low honesty-humility, low emotionality, low agreeableness, low conscientiousness, high extraversion and high openness scores (Egan et al., 1999; Paulhus & Williams, 2002), as well as high scores on all of the Dark Tetrad measures (Jones & Paulhus, 2011) with low honesty-humility and sadism being the biggest predictors of both subscales. There were 242 participants (60.7% female, 36.8% male, 2.5% identifying as 'other'; mean age 27.05 years (SD=9.32)). Results showed how the Dark Tetrad dimensions are correlated with the six HEXACO dimensions and how all of these traits are correlated with the sensational interest subscales. It was revealed that the violent occult subscale of sensational interests could be predicted by low agreeableness, high openness, high psychopathy, and high sadism whilst militarism could be predicted by low emotionality and high sadism. High sadism scores were found to show the largest correlation with both the violent occult and militarism scores. Implications of the study and recommendations for future directions are discussed.

Introduction

1.1. *Sensational interests:*

Sensational interests refer to military, 'esoteric', and Gothic interests. They have often been studied in relation to criminal behaviour and delinquency and have been associated with some types of criminal offending (Barlas & Egan, 2006; Charles & Egan, 2009). Sensational interests have been repeatedly linked to antisocial behaviour, for example, Egan, Austin, Elliot, Patel, and Charlesworth (2003) found an antisocial factor to be the strongest of four predictors of sensational interests. This finding has been seen in both offenders and non-offenders (Weiss, Egan, & Figueredo, 2004). Greswell and Hollin (1997) found evidence of an association between sensational interests and serious offenders whilst Gonzalez and Greitemeyer (2018) found that sensational interests can denote a curiosity for violence and the macabre (conspiracy theories). However, given the broad interest in true crime, weapons, and the violent occult, it is important to investigate what such a curiosity means in psychological terms, as these interests, despite common belief, are not just prevalent in sexually sadistic murderers, but also in less extreme members of the general population (Egan et al, 1999) and a large proportion of entertainment includes 'sensational' content which is highly successful (Egan et al., 2003).

Sensational interests have often been studied in forensic populations and adolescents, often ignoring how these particular interests can be found in the normal adult population. Sensational interests need to be understood in the context of other psychological qualities, and it has been found that sensational interests are actually underpinned by extremes of normal personality (Egan, Charlesworth, Richardson, & Blair, 2001). Likewise, Weaver (1991) found a modest but consistent association between sensational interests and extreme but general personality traits. However, sensational interests are not themselves pathological; Charles and Egan (2009) found that certain personality traits (in particular low agreeableness) were more likely to predict delinquency rather than sensational interests alone. In a study conducted by Egan et al. (2003), it was found that those high on the 'antisocial' factor (primarily

defined by low agreeableness and low conscientiousness) were more interested in 'violent occult' and 'militaristic' topics. Agreeableness and conscientiousness are two basic antagonistic traits, though there are a number of other antisocial traits captured by other personality assessments; this study will examine if these other measures of personality are associated with sensational interests in a more specific way.

The Sensational Interests Questionnaire (SIQ; Egan et al., 1999) is a self-report questionnaire used to examine unusual interests in a systematic way in both offenders and the general population. It uses two main subscales in order to measure sensational interests: violent occultism and militarism. The violent occultism subscale reflects an interest in violence, the supernatural, and black magic whilst militarism is concerned with guns, aggression, and survivalism.

1.2. The Dark Triad and everyday sadism:

The Dark Triad comprises three personality traits: Machiavellianism, seen in those who commonly manipulate and deceive others in order to achieve their goals, psychopathy, seen in those who demonstrate antisocial behaviour and have impaired empathy and remorse, and narcissism, those with a sense of entitlement and grandiose with a need for admiration and positive attention (Paulhus, 2014). High ratings on the Dark Triad have been found to be associated with a number of different antisocial behaviours including: aggression in children (Muris, Meesters & Timmermans, 2013), violence (Pailing, Boon & Egan, 2014), intimate partner violence (Carton & Egan, 2017), and bullying (Baughman, Dearing, Giammarco & Vernon, 2012). However, although these are seen as 'dark' personality traits, in some situations, traits from the Dark Triad can be seen as adaptive. For example, psychopathy can enable professionals such as lawyers and politicians to make guilt-free decisions (Mullins-Sweatt, Glover, Derefinko, Miller, & Widiger, 2010). Machiavellianism can be adaptive in complex social situations (Castille, Buckner, & Thoroughgood, 2016) whilst narcissism can be associated with less relationship dysfunction (Foster & Campbell, 2005) however, this could potentially only be true in the short term.

It has been suggested that sadism should be added to the Dark Triad, forming a Dark Tetrad (Chabrol, Van Leeuwen, Rodgers, & Séjourné, 2009). Sadism is defined as finding enjoyment or pleasure in other people's distress or harm (Baumeister & Campbell, 1999). Research surrounding sadism is generally concerned with sexual sadism (a forensic psychiatric disorder identified by deriving sexual pleasure through pain and suffering of others; Krueger, 2010), for example sadism in severe sexual offenders (Davies & O'Meara, 2007), sexual sadism at a subclinical level, or an interest in BDSM (bondage-discipline, domination-submission, and sadomasochism; Hébert & Weaver, 2014). A diagnosis of sadism in sexual offenders has been shown to be a strong indicator of violent sexual and non-sexual reoffending (Eher et al., 2015). Sexual sadism has been found to occur more commonly among those with other characteristics such as psychopathy (Mokros, Osterheider, Hucker & Nitschke, 2011) and their violent actions are often reinforced by cognitive distortions such as the expectation that victims enjoy forced sexual activity (Wilson, Holm, Bishop & Borowiak, 2002). Some research has suggested that sexual sadists may feel a sense of heightened perception of others' pain (Harenski et al., 2012) which may lead to increased satisfaction from sadistic acts (Buckels, 2012). However, not all sadism is sexual.

Nell (2006) argues that cruelty in mundane situations is so commonplace that humans have an innate readiness to find it pleasurable. Paulhus and Dutton (2016) suggest that sadism is a common behaviour with evolutionary roots, and that there are many expressions of non-sexual, subclinical sadism in modern culture, which they term 'everyday sadism' (Buckels, Jones, & Paulhus, 2013). Everyday sadism is reflected in commonplace cruelty, for example watching violence on TV or films, or finding enjoyment in viewing aggressive combat sports (Baumeister & Campbell, 1999). Greitemeyer (2015) found everyday sadism was associated with amount of violent video game exposure an individual had, and suggested that everyday sadists use video games to vicariously satisfy their need for cruelty. This study found that of the Dark Tetrad constructs, sadism has the most robust association with amount of violent video game play. Further research suggested that everyday sadists play violent video

games to satisfy their interest in weapons (Gonzalez & Greitemeyer, 2018). Evidence of sadistic characteristics have been found in normal high school students, with these tendencies being able to predict delinquent behaviours beyond the Dark Triad (Chabrol, Van Leeuwen, Rodgers, & Séjourné, 2009). In a similar way to the other traits in the Dark Triad, sadism can in some ways also be seen as adaptive, as sadism and cruelty may reflect an evolved mechanism for human predation and power struggles (Nell, 2006).

In relation to sensational interests, the Dark Triad has been found to be associated with violence, with psychopathy in particular being correlated with unprovoked violence (Westhead & Egan, 2015). James et al. (2014) found higher levels of the Dark Triad (specifically psychopathy) to be associated with greater sensational interests and higher levels of *schadenfreude* (pleasure from others' misfortune). Sensational interests and the Dark Triad have often been linked to high impulsivity, thrill seeking behaviour and aggression (Egan, Charlesworth, Richardson, Blair & McMurrin, 2001; Paulhus & Williams, 2002; Bushman & Baumeister, 1998). Narcissism has been found to be linked to functional impulsivity (such as fast thinking and rapid social engagement) while psychopathy has been linked to dysfunctional impulsivity (for example the inability to inhibit antisocial impulses and poor decision making; Jones & Paulhus, 2011). This finding suggests that those who score highly on the psychopathy component of the Dark Triad are more likely to have high sensational interest scores. However, Haggard-Johnson and Egan (2010) found that self-reported sadistic personality disorder was not specifically associated with sensational interests as much as were normal personality traits. Paulhus and Williams (2002) found disagreeableness to be the only common Big Five trait to correlate with the Dark Triad, specifically a high sadism score, while Carton and Egan (2017) also showed that low agreeableness was able to predict intimate partner violence, as was found for physical aggression (Egan & Campbell, 2009). Another study found that only those with a high sadism score would aggress against an innocent person (Buckels, Jones, & Paulhus, 2013). With this in mind, investigating the relationship between the Dark

Tetrad and personality traits specifically in relation to sensational interests may better inform everyday sadism.

1.3. *The Dark Tetrad and personality:*

The general HEXACO personality model comprises six domains: honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, and openness (Ashton & Lee, 2009). This model is able to capture the core personalities of the Dark Triad better than other personality measures (Book, Visser & Volk, 2015) and is thought to be able to explain sadistic behaviour through its links to the other traits of the Dark Triad (Book et al., 2016). Book et al's study found all of the dark personality traits to be associated with honesty-humility and agreeableness, suggesting that the truest form of "evil" is the tendency to exploit others, as well as seeking revenge on those who attempt to exploit oneself. Book et al. (2015) found that the Dark Tetrad could be represented by low honesty-humility, emotionality, agreeableness and conscientiousness, with honesty-humility having the largest impact. This dimension of the HEXACO was found to be the strongest predictor for psychopathy and Machiavellianism. The honesty-humility dimension of HEXACO is consistently negatively associated with Machiavellianism, narcissism and psychopathy (Lee & Ashton, 2005) as well as, in more recent studies, sadism (Book et al., 2016). Narcissism has been significantly correlated with high extraversion (for example through having high levels of social attention seeking) and low agreeableness (due to having selfish and vengeful tendencies; Campbell & Campbell, 2009). This is in line with stereotypical conceptions that narcissists seek to protect their egos via a lack of consideration for protecting the needs of others (Carpenter, 2011). Machiavellians, on the other hand, are associated with low honesty-humility (in their tendency to exploit others) and low agreeableness (in their unwillingness to be exploited by others) but tend to exploit a cost-benefit strategy, so may engage in prosocial behaviour even when they are not being observed (Bereczkei, Birkas, & Kerekes, 2010). Psychopathy has been observed to be in some ways similar to Machiavellianism, in that it is also associated with low agreeableness. However, psychopathy can also include low conscientiousness in that psychopaths often

show a lack of planning and effort, as well as low emotionality, meaning that they have a degree of callousness and lack anxiety (Book et al., 2016). The same study found sadism to have similar traits to psychopathy as sadism could also be linked to low emotionality and low agreeableness. However, in this case low emotionality was the largest predictor, showing that people scoring highly in sadism show the ability to not worry about the suffering and misfortune of others – as do persons higher in psychopathy (Baumeister & Campbell, 1999).

1.1. The present study:

The present study aims to replicate and build upon previous research of sensational interests and the Dark Tetrad, seeking to identify which aspects of the HEXACO and the Dark Tetrad can significantly predict scores for sensational interest subscales (violent occultism and militarism) with this being the primary research question. The study also asks the question of whether sensational interests are examples of everyday sadism or rather, a general indicator of antagonism (seen through low agreeableness). These research questions led to the following hypothesis being generated: it will be predicted that the violent occult and militarism subscales of the sensational interests questionnaire will be predicted by low honesty-humility, emotionality, agreeableness, conscientiousness scores and high openness and extraversion scores (Egan et al., 1999) as well as high levels of Machiavellianism, psychopathy (Jones & Paulhus, 2011), narcissism and sadism (James et al., 2014). It will predicted that low honesty-humility and high sadism will be the two strongest predictors of the violent occult and militarism subscale scores.

2. Method

2.1. Design

The design of the study was a cross-sectional survey design, investigating the associations between the Dark Tetrad, the HEXACO personality, and sensational interests as well as looking at predictors of sensational interests. This design was used due to its simple nature and ability to assess a random sample using very few resources. The design also

allows there to be less researcher bias as the research is purely self-report. The outcome variables were the subscales of the Sensational Interests Questionnaire (violent occultism and militarism), whilst the predictor variables were the demographic questions (age, gender, and years of education), the six HEXACO personality traits (honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, and openness to experience), the four Dark Tetrad dimensions (Machiavellianism, narcissism, psychopathy, and sadism), and the BIDR-16 scores.

2.2. Participants

Participants were adults aged 18 and over from the general population. A G*Power calculation was used; with an effect size of 0.2, an Alpha value of 0.05 and a statistical power of 0.95 (Faul, Erdfelder, Buchner, & Lang, 2009). The recommended minimum sample size was 90. A sample of 242 participants completed the study (147 females, 89 males and 6 identifying as 'other'), with a mean age of 27.05 (SD = 9.32) and an average of 16.17 years of full time education (SD = 3.05). Ethical considerations included the sensitive nature of some of the questions included in the study. Participants were able to omit any questions that they didn't feel comfortable answering and were informed that they could withdraw from the study at any stage. It was also made clear that all responses would remain anonymous. The study was granted ethical approval by the Faculty of Medicine & Health Sciences (FMHS) Research Ethics Committee (see appendix A).

2.3. Procedure

The study was advertised on social media platforms such as Facebook, Instagram and Reddit.com. Participants completed the questionnaire through the JISC Online Surveys website (<https://www.onlinesurveys.ac.uk/>) where they completed the questions in their own time. Before completing the questionnaire, participants read an information sheet (see appendix B) and were informed that by continuing with the study they were giving their consent. They then filled out a consent form (see appendix C). No identifiable personal details

were included in the study and IP addresses were not recorded to guarantee anonymity. At the end of the study, participants were thanked and debriefed (see appendix D) to explain the purpose of the research. The study was conducted online due to the ease of distribution and administration, anonymity, and reaching as many people as possible.

2.4. Measures

The survey used examined five main areas: demographic and background questions (including gender, age, employment status, and years of education; see appendix E), the Sensational Interests Questionnaire (SIQ; see appendix F), the Short Dark Tetrad questionnaire (DTET; see appendix G), a basic personality disposition questionnaire (HEXACO PI-R; see appendix H), and a social desirability questionnaire (BIDR-16; see appendix I). Short versions of the different questionnaires were used where possible, in order to avoid participation overburden. All scales were valid and reliable test instruments.

2.4.1. *The HEXACO Personality Inventory- Revised (Ashton & Lee, 2009)*

The 60-item HEXACO Personality Inventory- Revised was used to assess six main personality dimensions: honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, and openness to experience. Each subscale consists of 10 items, rated on a 5-point Likert scale showing how much participants agreed with that statement. The scale went from '1' being strongly disagree and '5' being strongly agree. The separate HEXACO dimensions were found to be reliable: honesty-humility $\alpha = 0.80$, emotionality $\alpha = 0.80$, extraversion $\alpha = 0.83$, agreeableness $\alpha = 0.80$, conscientiousness $\alpha = 0.81$, and openness to experience $\alpha = 0.78$.

2.4.2. *Sensational Interests Questionnaire (SIQ; Egan et al., 1999)*

The SIQ is a 28-item questionnaire, with 20 of the items being of forensic interest. These 20 items can be broken down into two subscales: 'violent occultism' and 'militarism.' The questionnaire includes items to create three filler scales: intellectual interests, paranormal credulousness, and wholesome activities. The participants were asked to rate their level of

interest in each of the items using a 5-point Likert scale ranging from -2 meaning 'great dislike' to +2 meaning 'great like' with 0 meaning no opinion. The sensational interest subscales were found to be reliable: violent occult $\alpha = 0.70$ and militarism $\alpha = 0.81$.

2.4.3. *The Short Dark Tetrad (SD4; Paulhus, Buckels, Trapnell & Jones, 2018)*

The SD4 was used to measure aspects of personality relating to the Dark Tetrad (DTET): narcissism, psychopathy, Machiavellianism and sadism. The 28-item scale used a 5-point Likert scale to look at the four traits with 1 indicating that the participant 'strongly disagreed' with that statement and 5 meaning 'strongly agree.' The separate dimensions were found to be reliable: Machiavellianism $\alpha = 0.74$, narcissism $\alpha = 0.71$, psychopathy $\alpha = 0.68$, and sadism $\alpha = 0.70$.

2.4.4. *The Balanced Inventory of Desirable Responding Short Form (BIDR-16; Hart, Ritchie, Hepper, & Gebauer, 2015)*

The Balanced Inventory of Desirable Responding Short Form (BIDR-16) was used as a social desirability measure due to the self-report nature of the study. The 16-item questionnaire was used to assess the tendency to give socially desirable responses by investigating self-deceptive enhancement (the tendency to give honest but positively biased reports) and impression management (the tendency to give inflated self-descriptions). This questionnaire used a 7-point Likert scale with 1 meaning 'not true' and 7 meaning 'very true.' The total BIDR-16 was found to have internal reliability, $\alpha = 0.70$.

3. Results

3.1. *Preliminary analysis*

Data were exported into SPSS and tested for reliability and basic correlation with each other. The data were then assessed for normal distribution, homoscedasticity and multicollinearity, in which it was found that none of the assumptions for parametric testing were violated and so multiple linear regressions were conducted. Reliabilities, means and standard deviations for all scales are provided in table 1.

Table 1
Means, SDs and reliabilities for measured variable

	Mean	SD	α
HEXACO			
Honesty-humility	2.59	0.72	0.80
Emotionality	2.74	0.73	0.80
Extraversion	3.07	0.77	0.83
Agreeableness	2.90	0.71	0.80
Conscientiousness	2.43	0.68	0.81
Openness to experience	2.22	0.67	0.78
DTET			
Machiavellianism	12.12	4.60	0.74
Narcissism	16.45	4.92	0.71
Psychopathy	20.12	5.18	0.68
Sadism	18.45	5.64	0.70
Total SIQ			
Violent Occult	3.13	5.36	0.70
Militarism	2.99	7.39	0.81
BIDR	54.38	10.80	0.70

3.2. Correlations

Correlations between the HEXACO, DTET, SIQ subscales, and total BIDR-16 were calculated (table 2 & 3). Pearson's r correlations between measures found there to be a significant negative correlation between both honesty-humility and emotionality with all of the traits of the Dark Tetrad. Extraversion was found to be positively associated with narcissism. Agreeableness was negatively correlated with narcissism, psychopathy and sadism, with conscientiousness being negatively associated with psychopathy and sadism. Interest in the violent occult was shown to be correlated low honesty-humility, emotionality and conscientiousness as well as high openness to experience, Machiavellianism, narcissism, psychopathy, and sadism. Militaristic interests were correlated with low honesty-humility and emotionality as well as high levels of all four of the Dark Tetrad dimensions. The scores of the BIDR-16 were positively correlated with honesty-humility, extraversion, agreeableness, conscientiousness as well as being negatively correlated with Machiavellianism, psychopathy, and sadism. Sadism was seen to show the largest correlation with both of the sensational interest subscales.

Table 2
Correlations (Pearson's *r*) between the Dark Tetrad, and HEXACO

	Honesty-humility	Emotionality	Extraversion	Agreeableness	Conscientiousness	Openness to experience
Machiavellianism	-0.47**	-0.18**	0.03	-0.08	0.02	0.04
Narcissism	-0.46**	-0.16**	0.49**	-0.18**	0.05	0.06
Psychopathy	-0.37**	-0.15	-0.03	-0.43**	-0.45**	0.08
Sadism	-0.42**	-0.41**	0.00	-0.30**	-0.25**	0.10

** correlation is significant at the level 0.01

Table 3
Correlations (Pearson's *r*) between HEXACO, DTET, SIQ subscales and BIDR-16

	Violent Occult	Militarism	BIDR-16
Honesty-humility	-0.28**	-0.25**	0.39**
Emotionality	-0.23**	-0.42**	-0.11
Extraversion	-0.11	0.08	0.31**
Agreeableness	-0.02	0.04	0.34**
Conscientiousness	-0.24**	-0.04	0.26**
Openness to experience	0.31**	-0.05	-0.01
Machiavellianism	0.23**	0.31**	-0.16**
Narcissism	0.17**	0.26**	0.09
Psychopathy	0.40**	0.26**	-0.25**
Sadism	0.48**	0.45**	-0.22**

** correlation is significant at the level 0.01

3.3. Multiple regression

Due to high levels of correlation in the data set, multiple regressions were calculated in order to distinguish which particular variables could significantly predict the sensational interest subscales (both for violent occultism and militarism). Multiple regressions were conducted with the following predictor variables; demographics (age, gender, and years of education), the six HEXACO personality dimensions, and the four Dark Tetrad dimensions whilst controlling for scores on the BIDR-16. The scores from the BIDR-16 did not predict any variance in the regressions, suggesting that participants were honest in their answers. The research sought to find the sources of variance in sensational interests (violent occult and militaristic interests) so proceeded theoretically from generic demographic factors, to standard personality variance, then to the Dark Tetrad, so moving from the most general to the highly

specific. Table 4 provides the standardised betas (β), t-values, and significance of the final models in the multiple regressions. The models used a significance criterion of $p < 0.01$ due to the study's large sample size. The first model found that a maximum of 40.4% of the observed variance could be predicted on the violent occult subscale by the combined independent effects of low agreeableness, high openness, high psychopathy, and high sadism ($F(14, 218) = 10.565$, $p < .001$). The second model showed that a maximum of 39.0% of the observed variance in militaristic interests could be predicted by combining low emotionality and high sadism ($F(14, 218) = 9.945$, $p < .001$).

Table 4
Multiple regression predicting violent occult from demographics, personality and Dark Tetrad measures

	Violent occult			Militarism		
	β	t	p<	β	t	p<
Age	0.09	1.63	0.11	0.04	0.75	0.46
Gender	0.12	1.98	0.05	-0.03	-0.42	0.67
Years of full-time education	0.04	0.76	0.45	0.05	0.89	0.38
Honesty-humility	-0.10	-1.33	0.19	-0.9	-1.20	0.23
Emotionality	-0.05	-0.76	0.45	-0.23	-3.52	0.001**
Extraversion	-0.11	-1.59	0.11	-0.08	-1.13	0.26
Agreeableness	0.22	3.31	0.001**	0.16	2.42	0.016
Conscientiousness	-0.05	-0.83	0.41	0.06	0.87	0.38
Openness to experience	0.22	4.08	0.001**	-0.14	-2.56	0.011
Machiavellianism	0.01	0.15	0.88	0.12	1.86	0.07
Narcissism	0.01	0.09	0.93	0.05	0.68	0.50
Psychopathy	0.24	3.11	0.002**	0.16	1.97	0.051
Sadism	0.35	4.60	0.001**	0.28	3.61	0.001**

** p is significant at the level 0.01

4. Discussion

This study provides further insight into sensational interests, looking at which personality traits and dimensions of the Dark Tetrad can predict these particular interests. The findings allow the hypothesis to be partially accepted as the violent occult subscale of the sensational interests questionnaire could be predicted by low agreeableness, high openness, high psychopathy, and high sadism whilst militarism could be predicted by low emotionality and high sadism. The second part of the hypothesis could also be partially accepted as sadism

was found to show the largest correlation with both the violent occult and militarism scores. Narcissism and Machiavellianism, although both were moderately correlated with both subscales, did not enter either model in predicting scores on the sensational interests questionnaire. These results are able to answer the overarching research question of which Dark Tetrad and HEXACO traits are predictors of sensational interests as well as showing how sensational interests are both examples of everyday sadism and a general indicator of antagonism (shown through low agreeableness).

The present study provides unique information regarding the Dark Tetrad, personality traits and sensational interests. It has been demonstrated how sensational interests and the dimensions of the Dark Tetrad can be seen in members of the general population and not just in criminal offenders and sexually sadistic murderers (Charles & Egan, 2009; Egan et al., 2003). This is particularly important as sensational interests have primarily been researched in forensic populations and adolescents, often ignoring how these interests are also found in the normal adult population. This has meant that sensational interests have been viewed as fundamentally pathological rather than common interests among the general population. The study has reinforced previous knowledge that people with sensational interests (including interest in guns and shooting, the armed forces, and black magic) tend to show high levels of all of the Dark Tetrad dimensions, with a particular focus on sadism (James et al., 2014). The study provided new information regarding what aspects of personality can be predictors of sensational interests.

This study is able to extend the existing research surrounding sensational interests and provides insight into how they can be predicted through aspects of the Dark Tetrad domains, whilst taking into account general personality traits. The findings from this study are consistent with that in previous research in that it is suggested that sadism is a significant predictor of sensational interests (James et al. 2014) both for violent occultism and militarism. Consistencies with the James et al. study are also reflected in the result for psychopathy and its ability to predict the violent occult subscale of sensational interests. The HEXACO results

in this study are also seen to be in line with past literature. Low agreeableness has been repeatedly seen in those with high sensational interests and high Dark Tetrad traits (Campbell & Campbell, 2009; Carton & Egan, 2017; Paulhus & Williams, 2002) as well as low emotionality (Baumeister & Campbell, 1999). The results for openness replicated past research as high openness scores were found in those high on the violent occult subscale whilst those with militaristic interests had lower levels of openness (Charles & Egan, 2009; Egan, et al., 1999). Although honesty-humility was not a significant predictor of sensational interests, the results remained consistent with current knowledge that honesty-humility is negatively correlated with all of the Dark Tetrad dimensions (Lee & Ashton, 2005; Book et al., 2016). Some results varied slightly from previous literature. Machiavellianism and narcissism were not able to significantly predict either subscale of sensational interests, however both of these dimensions did show significant correlations with both violent occult and militarism subscales. Other traits such as conscientiousness and extraversion were also unable to predict sensational interest scores however, as expected, conscientiousness was significantly negatively correlated with the violent occult subscale, psychopathy and sadism (Book et al., 2016) whilst high levels of extraversion was correlated with narcissism (Campbell & Campbell, 2009).

The correlations seen in this study show how the Dark Tetrad dimensions and HEXACO personality traits are correlated with one another and how they are related to sensational interests. They are consistent with previous research such as Jones & Paulhus (2011) and James et al. (2014), which suggest that those with high sensational interests do have higher psychopathic traits such as antisocial tendencies and a lack of planning and effort. They are also more likely to show a lack of empathy or remorse as well as the tendency to exploit others (Book et al., 2016). Those high in sensational interests may also show narcissistic traits such as a lack of consideration in protecting the needs of others and their need to protect their own egos (Carpenter, 2011). Low emotionality and high sadism scores are also in line with previous research (Book et al., 2016) showing how those with high sensational interests are likely to

show callousness and a lack of anxiety as well as a tendency to find pleasure in others' pain and suffering. All of these findings can show how having high levels of sensational interests could be linked to antisocial behaviour and criminal offending which is a repeated finding within the literature (Barlas & Egan, 2006; Egan et al., 2003). Those who are high in the Dark Tetrad traits appear to be more likely to possess sensational interests, which in turn could be a significant predictor of criminal behaviour. This finding could be used as a preventative measure as it could be used to identify those high in Dark Tetrad traits, through the identification of those high in sensational interests, early on in an aim to reduce criminal offending. It could also be used to aid rehabilitation after criminal convictions as treatment can be better tailored to offenders if it is made clear which of the dimensions of the Dark Tetrad that individual is high in. The identification of the Dark Tetrad trait will make it clearer what HEXACO personality traits that offender has which would mean that a clear treatment plan could be formulated.

4.1. Strengths, limitations and future directions

One strength of the study was its design. The cross sectional nature of the study meant that it could be designed and distributed with very minimal costs and resources. This design allowed for the highest probability of reaching a sample representative of the general population. The online survey was made in a way that it was simple for the participants to navigate which allowed for the highest level of completion as well as ensuring that participants were accurate in their responses. The results from the study showed clearly the predictors of sensational interests in a normal adult population which importantly fills a gap in the literature. All measures were found to be reliable and the study found what was intended.

One limitation of the study is the reliance on self-report measure as well as the self-selecting nature of the study. However, the BDR-16 was used as a measure of social desirability. This measure, alongside the anonymous nature of the survey was able to improve the validity of the study as a common confounding variable with self-report studies is that participants have the opportunity to lie. The recruitment process, being through social media,

as well as the title of the study would have attracted a very specific group of people meaning that the sample may not truly reflect the general population. However, the design of the study meant that the cohort was as general and diverse as the situation allowed. Another limitation is that the use of the short versions of some of the scales were used. Although this was important to avoid participation overburden and the scales used have all been shown to be reliable, results may have been more informative or shown a larger effect had the full versions of each scale been used.

Future directions in this area could focus on whether similar results would be found in comparison to those in forensic settings since the Dark Tetrad has been found to be linked to criminal offending and antisocial behaviour. The study could be replicated but with an additional focus on past offending and criminal history to see if people who have been involved with the law are more likely to show higher levels of the Dark Tetrad traits and how this links to the HEXACO dimensions. Future studies could also look at comparisons between different cultures as well as conducting longitudinal studies to see how personality and attitudes change and develop over time. Age and gender difference could also be explored as these have rarely been focussed on in relation to sensational interests. As previously mentioned, the results could be useful in identifying people high in the Dark Tetrad traits in order to reduce criminal and antisocial behaviour as well as being used in developing specific treatment plans for offenders high in the Dark Tetrad dimensions.

4.2. Conclusion

In conclusion, the present study sought to investigate the relationship between sensational interests, the Dark Triad and the HEXACO personality dimensions in a normal adult population. It has shown how the six different HEXACO personality traits are correlated with the four Dark Tetrad dimensions and how both of these are linked to sensational interests. Results showed how an interest in the violent occult subscale of sensational interests can be predicted by low agreeableness, high openness, high psychopathy, and high sadism whilst militaristic interests can be predicted by low emotionality and high sadism showing that

sensational interests are an indication of both everyday sadism and general antagonism. These findings compliment and build upon the current research surrounding the Dark Tetrad, personality and sensational interests and provide a wide scope for future research.

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6. Appendices

Appendix A: Ethical approval



**University of
Nottingham**
UK | CHINA | MALAYSIA

Email: FMHS-ResearchEthics@nottingham.ac.uk

Faculty of Medicine & Health Sciences Research Ethics Committee

c/o Faculty PVC Office
School of Medicine Education Centre
B Floor, Medical School
Queen's Medical Centre Campus
Nottingham University Hospitals
Nottingham, NG7 2UH

25 March 2019

Charlotte Weatherill
MSc Student - Forensic and Criminological Psychology
c/o Dr Vince Egan
Associate Professor of Forensic Psychology Practice
Centre for Family and Forensic Psychology
Psychiatry and Applied Psychology
School of Medicine
B23, Yang Fujia Building
Jubilee Campus
Wollaton Road
Nottingham, NG8 1BB

Dear Ms Weatherill

Ethics Reference No: 253-1902– please always quote	
Study Title: Are sensational interests examples of everyday sadism, or a general indicator of antagonism?	
Chief Investigator/Supervisor: Dr Vince Egan, Associate Professor of Forensic Psychology Practice/Director of MSc Forensic Psychology by Research, Division Psychiatry and Applied Psychology	
Lead Investigators/student: Charlotte Weatherill, MSc – Forensic and Criminological, School of Medicine	
Proposed Start Date: 01/01/2019	Proposed End Date: 31/05/2019

Thank you for submitting the above application and the following documents were received:

- FMHS REC Application form and supporting documents version 1.0: 13.11.2018

These have been reviewed and are satisfactory and the study has been given a favourable opinion.

A favourable opinion has been given on the understanding that:

1. The protocol agreed is followed and the Committee is informed of any changes using a notice of amendment form (please request a form).
2. The Chair is informed of any serious or unexpected event.
3. An End of Project Progress Report is completed and returned when the study has finished (Please request a form).

Yours sincerely

Professor Ravi Mahajan
Chair, Faculty of Medicine & Health Sciences Research Ethics Committee

Appendix B: Participant information sheet

Information and Consent page for an Online Survey

School of Medicine, Division of Applied Psychology, Centre of Forensic and Family Psychology

Yang Fujia Building

Jubilee Campus

Wollaton Road

NG8 1BB

Sensational interests and the dark tetrad

Research Ethics Ref: 253-1902

General Information

Thank you for your interest in taking part in this online survey. You have been invited to participate as you are over the age of 18. Please read through this information before agreeing to participate on the following page.

This study is being done by Charlotte Weatherill from the University of Nottingham and Dr Vincent Egan (supervisor). We are investigating the relationship between aspects of personality and sensational interests. Sensational interests are things like the paranormal, outdoors activities, the military, and non-traditional belief systems.

You will be given some information to read, and then answer a number of questionnaires. It should take you about 20 minutes to complete the survey. No background knowledge is required. The information gathered in this research will be used to develop a clearer understanding of the relationship between sensational interests, and different aspects of personality.

How will your data be used?

Your answers will be completely anonymous and we do not gather any information that can link your answers to you personally. Your participation in this study is entirely voluntary. You can withdraw at any point during the questionnaire for any reason, before submitting your answers by clicking the Exit button/closing the browser. The data will only be uploaded on completion of the questionnaire by clicking the 'Finish' button. You are free to omit any question.

Your data will be stored in a password-protected file and may be used in academic publications. Your IP address will not be stored. All questions are optional.

The data that we collect from you may be transferred to, and stored or processed at, a destination outside of the European Economic Area (EEA). By submitting your personal data, you agree to this transfer, storing or processing.

Who will have access to your data?

The University of Nottingham is the data controller for the purposes of the Data Protection.

We believe there are no known risks associated with this research study; however, as with any online related activity the risk of a breach is always possible. We will do everything possible to ensure your answers in this study will remain anonymous. We will minimize any risks by not including any personal information.

The results of the study may be published in scientific journals and presented at scientific conferences. The data will be reported anonymously, with any identifying information removed.

If you have any questions about this project, you may contact the Lead Researcher: Charlotte Weatherill (charlotte.weatherill@nottingham.ac.uk) or if you have any concerns about any aspect of this study please contact the Research Supervisor: Dr Vincent Egan (vincent.egan@nottingham.ac.uk). If you remain unhappy and wish to complain formally, you should then contact the FMHS Research Ethics Committee Administrator, c/o The University of Nottingham, Faculty PVC Office, B Floor, Medical School, Queen's Medical Centre Campus, Nottingham University Hospitals, Nottingham, NG7 2UH.

E-mail: FMHS-ResearchEthics@nottingham.ac.uk

This study has been reviewed and given a favourable opinion by the University of Nottingham, Faculty of Medicine & Health Sciences Research Ethics Committee (253-1902).

Appendix C: Consent questions

1




Consent *




	No	Yes
Have you read and understood the Participant Information?	☐	☐
Do you agree to take part in a study?	☐	☐
Do you know how to contact the researcher if you have questions about this study?	☐	☐
Do you understand that you are free to withdraw from the study without giving a reason?	☐	☐
Do you understand that for anonymous questionnaire studies, once you have completed the study and submitted your answers to the researcher the data cannot be withdrawn?	☐	☐
Do you give permission for your data from this study to be shared with other researchers in the future provided that your anonymity is protected?	☐	☐
Do you understand that non-identifiable data from this study might be used in academic research reports or publications?	☐	☐
I confirm that I am 18 years old or over	☐	☐
I confirm that I am willing to take part in this study	☐	☐
Add item		
Add item		

p. 8

Debrief

Jump ▾

Add item



Are sensational interests examples of everyday sadism, or a general indicator of antagonism?

Thank you for your participation in this study.

The aims of the study are to examine the personality foundations of the dark tetrad (narcissism, subclinical psychopathy, Machiavellianism, and sadism) and sensational interests (violent and unusual interests) whilst taking into account social desirability. The study is not suggesting that people are sadists, but examining the concepts and their associations to see if they hold up to normal assessment. It is predicted that sensational interests will indicate general antagonism (low agreeableness) rather than everyday sadism.

No personal details will be included in the stored data and your answers will remain completely anonymous.

If you have any further questions or concerns, please do not hesitate to get in contact either through:
charlotte.weatherill@nottingham.ac.uk
or
vincent.egan@nottingham.ac.uk

Thank you again for your participation.

Further reading:

Egan, V., Auty, J., Miller, R., Ahmadi, S., Richardson, C., & Gargan, I. (2008). Sensational interests and general personality traits. *The Journal of Forensic Psychiatry*, 10(3), 567-582.

Sensational
Interests: https://link.springer.com/referenceworkentry/10.1007%2F978-3-319-32132-5_379-2

Everyday
sadism: <https://www.psychologytoday.com/gb/blog/fulfillment-any-age/201503/10-ways-spot-everyday-sadist>



Appendix E: Demographic questionnaire

p. 3 Demographics Jump ▾

Add item

2  Gender  

Male

Female

Other

Add item

a  T If 'other' please specify  

Add item

Add item

Add item

3   Please type your age below  

Add item

Add item

4  Employment status  

Full time

Part time

Student

Unemployed

Freelance/temporary

Other

Show less

Add item

a  T If 'other' please specify  

Add item

Add item

Add item

5   Years of full-time education  

Add item

58

Appendix F: Sensational Interests Questionnaire

p. 4 Interests

Jump

Add item

Instructions

Please read the following list of interests. For each item please indicate how much you like or how interested you are in it.

The responses you may select are:

-2 Great dislike -1 Slight dislike 0 No opinion +1 Slight like +2 Great like

Add item

6

	-2	-1	0	+1	+2
Alternative medicine (herbal remedies, acupuncture, homeopathy)	☐	☐	☐	☐	☐
Astrology (star signs, horoscopes)	☐	☐	☐	☐	☐
Black magic	☐	☐	☐	☐	☐
Body-building	☐	☐	☐	☐	☐
Camping	☐	☐	☐	☐	☐
Country and hill-walking	☐	☐	☐	☐	☐
Crossbows, knives & swords	☐	☐	☐	☐	☐
Drugs	☐	☐	☐	☐	☐
Fishing	☐	☐	☐	☐	☐
Flying saucers	☐	☐	☐	☐	☐
Foreign travel	☐	☐	☐	☐	☐
Gardening	☐	☐	☐	☐	☐
Guns and shooting	☐	☐	☐	☐	☐
Martial arts (karate, kung fu etc.)	☐	☐	☐	☐	☐
Medicine	☐	☐	☐	☐	☐
SAS (commandos, paramilitaries, navy seals)	☐	☐	☐	☐	☐
Motorbikes	☐	☐	☐	☐	☐
Paganism (spirits of animals, trees etc. rituals at Stonehenge)	☐	☐	☐	☐	☐
Philosophy (thinking about why we are here and why we do things)	☐	☐	☐	☐	☐
Psychology and psychiatry	☐	☐	☐	☐	☐
Singing and making music	☐	☐	☐	☐	☐
Sporting activities	☐	☐	☐	☐	☐
Survivalism (surviving in the wild, self-preservation, self-reliance)	☐	☐	☐	☐	☐
Tattoos and body-piercing (including branding)	☐	☐	☐	☐	☐
The armed forces	☐	☐	☐	☐	☐
The environment	☐	☐	☐	☐	☐
The paranormal (telepathy, psychic powers, miracles)	☐	☐	☐	☐	☐
Vampires and werewolves	☐	☐	☐	☐	☐

Appendix G: Dark Tetrad questionnaire



Directions

Jump

On the following page you will find a series of statements about you. Please read each statement and decide how much you agree or disagree with that statement. Then select your response from the list using the following scale:

The responses you may select are:

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

Add item

7



	1	2	3	4	5
It's not wise to let people know your secrets	☐	☐	☐	☐	☐
Whatever it takes, you must get the important people on your side	☐	☐	☐	☐	☐
Avoid direct conflict with others because they may be useful in the future	☐	☐	☐	☐	☐
Keep a low profile if you want to get your way	☐	☐	☐	☐	☐
Manipulating the situation takes planning	☐	☐	☐	☐	☐
Flattery is a good way to get people on your side	☐	☐	☐	☐	☐
I love it when a tricky plan succeeds	☐	☐	☐	☐	☐
People see me as a natural leader	☐	☐	☐	☐	☐
I have a unique talent for persuading people	☐	☐	☐	☐	☐
Group activities tend to be dull without me	☐	☐	☐	☐	☐
I know that I am special because people keep telling me so	☐	☐	☐	☐	☐
I have some exceptional qualities	☐	☐	☐	☐	☐
I'm likely to become a future star in some area	☐	☐	☐	☐	☐
I like to show off every now and then	☐	☐	☐	☐	☐
People often say I'm out of control	☐	☐	☐	☐	☐
I tend to fight against authorities and their rules	☐	☐	☐	☐	☐
I'm tempted to punch people who anger me	☐	☐	☐	☐	☐
I tend to dive in, then ask questions later	☐	☐	☐	☐	☐
I've been in trouble with the law	☐	☐	☐	☐	☐
I sometimes get into dangerous situations	☐	☐	☐	☐	☐
People who mess with me always regret it	☐	☐	☐	☐	☐
Watching a fist-fight excites me	☐	☐	☐	☐	☐
I really enjoy violent films and video games	☐	☐	☐	☐	☐
It's funny when idiots fall flat on their face	☐	☐	☐	☐	☐
I enjoy watching violent sports	☐	☐	☐	☐	☐
Some people deserve to suffer	☐	☐	☐	☐	☐
I like to troll people on internet sites	☐	☐	☐	☐	☐
I know how to hurt someone with words alone	☐	☐	☐	☐	☐

Add item

Appendix H: HEXACO questionnaire

p. 6

HEXACO

Jump ▾

Add item



Directions

On the following page you will find a series of statements about you. Please read each statement and decide how much you agree or disagree with that statement. Then select your response from the list using the following scale:

The responses you may select are:

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

Add item

8



	1	2	3	4	5
I would be quite bored by a visit to an art gallery	☐	☐	☐	☐	☐
I plan ahead and organise things, to avoid scrambling at the last minute	☐	☐	☐	☐	☐
I rarely hold a grudge, even against people who have badly wronged me	☐	☐	☐	☐	☐
I feel reasonably satisfied with myself overall	☐	☐	☐	☐	☐
I would feel afraid if I had to travel in bad weather conditions	☐	☐	☐	☐	☐
I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed	☐	☐	☐	☐	☐
I'm interested in learning about the history and politics of other countries	☐	☐	☐	☐	☐
I often push myself very hard when trying to achieve a goal	☐	☐	☐	☐	☐
People sometimes tell me that I am too critical of others	☐	☐	☐	☐	☐
I rarely express my opinions in group meetings	☐	☐	☐	☐	☐
I sometimes can't help worrying about little things	☐	☐	☐	☐	☐
If I knew that I could never get caught, I would be willing to steal a million dollars	☐	☐	☐	☐	☐
I would enjoy creating a work of art, such as a novel, a song, or a painting	☐	☐	☐	☐	☐
When working on something, I don't pay much attention to small details	☐	☐	☐	☐	☐
People sometimes tell me that I'm too stubborn	☐	☐	☐	☐	☐
I prefer jobs that involve active social interaction to those that involve working alone	☐	☐	☐	☐	☐
When I suffer from a painful experience, I need someone to make me feel comfortable	☐	☐	☐	☐	☐
Having a lot of money is not especially important to me	☐	☐	☐	☐	☐
I think that paying attention to radical ideas is a waste of time	☐	☐	☐	☐	☐
I make decisions based on the feeling of the moment rather than on careful thought	☐	☐	☐	☐	☐
People think of me as someone who has a quick temper	☐	☐	☐	☐	☐
On most days, I feel cheerful and optimistic	☐	☐	☐	☐	☐
I feel like crying when I see other people crying	☐	☐	☐	☐	☐
I think that I am entitled to more respect than the average person is	☐	☐	☐	☐	☐
If I had the opportunity, I would like to attend a classical music concert	☐	☐	☐	☐	☐
When working, I sometimes have difficulties due to being disorganised	☐	☐	☐	☐	☐
My attitude toward people who have treated me badly is "forgive and forget"	☐	☐	☐	☐	☐
I feel that I am an unpopular person	☐	☐	☐	☐	☐

When it comes to physical danger, I am very fearful	☐	☐	☐	☐	☐
If I want something from someone, I will laugh at that person's worst jokes	☐	☐	☐	☐	☐
I've never really enjoyed looking through an encyclopedia	☐	☐	☐	☐	☐
I do only the minimum amount of work needed to get by	☐	☐	☐	☐	☐
I tend to be lenient in judging other people	☐	☐	☐	☐	☐
In social situations, I'm usually the one who makes the first move	☐	☐	☐	☐	☐
I worry a lot less than most people do	☐	☐	☐	☐	☐
I would never accept a bribe, even if it were very large	☐	☐	☐	☐	☐
People have often told me that I have a good imagination	☐	☐	☐	☐	☐
I always try to be accurate in my work, even at the expense of time	☐	☐	☐	☐	☐
I am usually quite flexible in my opinions when people disagree with me	☐	☐	☐	☐	☐
The first thing that I always do in a new place is to make friends	☐	☐	☐	☐	☐
I can handle difficult situations without needing emotional support from anyone else	☐	☐	☐	☐	☐
I would get a lot of pleasure from owning expensive luxury goods	☐	☐	☐	☐	☐
I like people who have unconventional views	☐	☐	☐	☐	☐
I make a lot of mistakes because I don't think before I act	☐	☐	☐	☐	☐
Most people tend to get angry more quickly than I do	☐	☐	☐	☐	☐
Most people are more upbeat and dynamic than I generally am	☐	☐	☐	☐	☐
I feel strong emotions when someone close to me is going away for a long time	☐	☐	☐	☐	☐
I want people to know that I am an important person of high status	☐	☐	☐	☐	☐
I don't think of myself as the artistic or creative type	☐	☐	☐	☐	☐
People often call me a perfectionist	☐	☐	☐	☐	☐
Even when people make a lot of mistakes, I rarely say anything negative	☐	☐	☐	☐	☐
I sometimes feel that I am a worthless person	☐	☐	☐	☐	☐
Even in an emergency I wouldn't feel like panicking	☐	☐	☐	☐	☐
I wouldn't pretend to like someone just to get that person to do favours for me	☐	☐	☐	☐	☐
I find it boring to discuss philosophy	☐	☐	☐	☐	☐
I prefer to do whatever comes to mind, rather than stick to a plan	☐	☐	☐	☐	☐
When people tell me that I'm wrong, my first reaction is to argue with them	☐	☐	☐	☐	☐
When I'm in a group of people, I'm often the one who speaks on behalf of the group	☐	☐	☐	☐	☐
I remain unemotional even in situations where most people get very sentimental	☐	☐	☐	☐	☐
I'd be tempted to use counterfeit money, if I were sure I could get away with it	☐	☐	☐	☐	☐

Add item

Add item

Appendix I: Social desirability questionnaire (BIDR-16)

p. 7 Self-presentation

Add item

Instructions

Using the scale below as a guide, select a number beside each statement to indicate how much you agree with it.

1 2 3 4 5 6 7
Not true Somewhat true Very true

Add item

9

	1	2	3	4	5	6	7
I have not always been honest with myself	☐	☐	☐	☐	☐	☐	☐
I always know why I like things	☐	☐	☐	☐	☐	☐	☐
It's hard for me to shut off a disturbing thought	☐	☐	☐	☐	☐	☐	☐
I never regret my decisions	☐	☐	☐	☐	☐	☐	☐
I sometimes lose out on things because I can't make up my mind soon enough	☐	☐	☐	☐	☐	☐	☐
I am a completely rational person	☐	☐	☐	☐	☐	☐	☐
I am very confident of my judgements	☐	☐	☐	☐	☐	☐	☐
I have sometimes doubted my ability as a lover	☐	☐	☐	☐	☐	☐	☐
I sometimes tell lies if I have to	☐	☐	☐	☐	☐	☐	☐
I never cover up my mistakes	☐	☐	☐	☐	☐	☐	☐
There have been occasions when I have taken advantage of someone	☐	☐	☐	☐	☐	☐	☐
I sometimes try to get even rather than forgive and forget	☐	☐	☐	☐	☐	☐	☐
I have said something bad about a friend behind his or her back	☐	☐	☐	☐	☐	☐	☐
When I hear people talking privately, I avoid listening	☐	☐	☐	☐	☐	☐	☐
I never take things that don't belong to me	☐	☐	☐	☐	☐	☐	☐
I don't gossip about other people's business	☐	☐	☐	☐	☐	☐	☐

Add item

Add item

Executive summary

Target audience: Academics

1. Background

1.1. Sensational interests

Sensational interests can refer to military and 'esoteric' interests for example such things as true crime, weapons, and the violent occult. They have often been studied in terms of sexually sadistic murderers and have been linked to some forms of criminal offending (Charles & Egan, 2009) as well as curiosity for violence and conspiracy theories (Gonzalez and Greitemeyer, 2018). However, it is important to investigate to what extent these interests are present in less extreme members of the general population since popular entertainment can often include 'sensational' content which is enjoyed by a large proportion of the general population (Egan, Austin, Elliot, Patel, & Charlesworth, 2010). Sensational interests are measured through two main subscales: violent occultism (an interest in black magic and the supernatural) and militarism (interests in guns and survivalism).

1.2. Dark Triad and everyday sadism

The Dark Triad comprises of three personality traits: Machiavellianism, narcissism, and psychopathy. It has recently been suggested that sadism should be added to form a Dark Tetrad (Chabrol, Van Leeuwen, Rodgers, & Séjourné, 2009). Sadism, which can be defined as finding pleasure in the harm or distress of other people (Baumeister & Campbell, 1999), has been studied in terms of sexual sadism for example in sexual offenders. However, it has been suggested that sadism is a common behaviour with evolutionary roots (Nell, 2006; Paulhus & Dutton, 2016). There are many ways of expressing non-sexual sadism in

modern culture for example in violent video games, films and combat sports. This kind of sadism has been termed 'everyday sadism' (Buckels, Jones, & Paulhus, 2013). Everyday sadism has been seen in those who use violent video games to satisfy their need for cruelty (Greitemeyer, 2015) or their interest in weapons (Gonzalez & Greitemeyer, 2018).

1.3. Dark Tetrad and personality

The HEXACO model of personality (comprising honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, and openness; Ashton & Lee, 2009) has been used to capture the core personalities of the Dark Triad and sadistic behaviour. All of the dark personality traits have been negatively associated with the honesty-humility and agreeableness dimensions of the HEXACO model. Narcissism has been shown to be correlated with high levels of extraversion whilst psychopathy is associated with low conscientiousness. Sadism has been found to be linked to low emotionality.

2. Rationale

The study aimed to replicate and build upon existing literature surrounding sensational interests, the Dark Tetrad, and personality. Although these topics have been studied separately, they have not been examined as a whole with the Dark Tetrad and personality being predictors of sensational interests.

3. Research aims

The study aimed to identify which Dark Tetrad dimensions and HEXACO personality traits could predict sensational interest scores. The research also aimed to answer the question of whether sensational interests are examples of everyday sadism or general indicators of antagonism (seen through low agreeableness). It was hypothesised that sensational interests would be predicted by low levels of

honesty-humility, emotionality, agreeableness, conscientiousness, and high levels of openness, extraversion, Machiavellianism, narcissism, psychopathy, and sadism. Sadism and low honesty-humility scores were predicted to be the two strongest predictors of the sensational interest subscales.

4. Data collection and analysis

Data were collected online through the JISC online surveys website (<https://www.onlinesurveys.ac.uk/>) which was posted on various social media platforms such as Facebook, Instagram and Reddit.com. Participants read through an information sheet and consent form before completing a number of questionnaires in their own time. The survey included a demographic questionnaire, the Short Dark Tetrad, the HEXACO PI-R, the Sensational Interests Questionnaire, and the BIDR-16 as a measure of social desirability. Data from the online survey were exported into SPSS where they were first tested for reliability and basic correlation with each other. After ensuring that none of the assumptions for parametric testing were violated, multiple linear regressions were conducted. The regressions aimed to distinguish which variables could predict sensational interest subscales (violent occultism and militarism), looking at demographics (age, gender, and years of education), the six HEXACO personality dimensions, and the four Dark Tetrad dimensions whilst controlling for scores on the BIDR-16.

5. Findings

The results of the study first showed how the Dark Tetrad and HEXACO personality traits correlated with each other. Honesty-humility and emotionality both had a negative correlation with all four of the Dark Tetrad dimensions. Extraversion showed a positive correlation with narcissism whilst agreeableness was negatively correlated with narcissism, psychopathy, and sadism. Conscientiousness was negatively associated with psychopathy and sadism. Next,

the correlations showed how these traits are associated with sensational interests. The violent occult subscale showed a negative correlation with honesty-humility, emotionality and conscientiousness and positive correlations with openness, Machiavellianism, narcissism, psychopathy, and sadism. Militarism was negatively correlated with honesty-humility, emotionality, and conscientiousness and positively associated with all of the Dark Tetrad traits. Sadism showed the largest correlation with both subscales of sensational interests. The results from the regressions showed that the violent occult subscale of sensational interests could be predicted by low agreeableness, high openness, high psychopathy, and high sadism. Militarism could be predicted by low emotionality and high sadism.

6. Implications

The study is able to build upon previous research and extend current knowledge surrounding sensational interests, the Dark Tetrad and personality. The research can be used to show how sensational interests can be linked to criminal offending and antisocial behaviour through its links to the Dark Tetrad and personality. These findings can be used as a preventative measure by identifying those with Dark Tetrad traits and high sensational interests in order to reduce criminal activity. It could also be used as a way of making more specific treatment plans for offenders high in Dark Tetrad traits.

7. Future research

Future research could explore the similarities and differences in the general population and forensic patients since the Dark Tetrad has previously been linked to criminal offending and antisocial behaviour. Studies could also use longitudinal techniques to examine how personality and attitudes develop over time as well as looking more closely at age and gender differences.

ARE SENSATIONAL INTERESTS EXAMPLES OF EVERYDAY SADISM OR A GENERAL INDICATOR OF ANTAGONISM?

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AIMS AND RATIONALE

- The study aimed to replicate the research surrounding sensational interests, the Dark Tetrad and the HEXACO personality dimensions whilst filling gaps in the literature regarding the predictors of sensational interests.
- Research questions and hypotheses aimed to examine which of the Dark Tetrad and HEXACO personality traits were predictors of sensational interests and whether sensational interests are examples of everyday sadism or a general indicator of antagonism.

METHODS

- 242 participants aged 18 and over (mean age = 27.05, SD = 9.32) from the general population took part in an online survey which included:
 - demographics (age, gender, employment status, and years of education)
 - the Sensational Interests Questionnaire (SIQ; Egan et al., 1999)
 - the Short Dark Tetrad (SD4; Paulhus et al., 2018)
 - the HEXACO Personality Inventory- Revised (Ashton & Lee, 2009),
 - the Balanced Inventory of Desirable Responding Short Form (BIDR-16; Hart, Ritchie, Hepper, & Gauber, 2015).
- The study was advertised on social media platforms where participants read through an information sheet and consent form before completing the questions in their own time. Participants were thanked and debriefed upon completion. No identifiable information was included in the study.

RESULTS

- The violent occult subscale was correlated with low honesty-humility, emotionality and conscientiousness as well as high openness, Machiavellianism, narcissism, psychopathy and sadism.
- A maximum of 40.4% of the observed variance could be predicted on the violent occult subscale by the combined independent effects of low agreeableness, high openness, high psychopathy, and high sadism ($F(14, 218) = 10.565, p < .001$).
- Militaristic interests were correlated with low honesty-humility, emotionality and high levels of all four of the Dark Tetrad traits.
- A maximum of 39.0% of the observed variance could be predicted on the militarism subscale by combining low agreeableness, high openness, high psychopathy, and high sadism ($F(14, 218) = 9.945, p < .001$).

IMPLICATIONS AND FUTURE RESEARCH

- The findings provide further insight into sensational interests and how they can be predicted by the Dark Tetrad and HEXACO personality dimensions. These results show how sensational interests can be linked to criminal offending through its association to the Dark Tetrad.
- Results show how knowledge of the Dark Tetrad and sensational interests can be used as a preventative measure to reduce criminal offending and antisocial behaviour as well as helping to create specific treatment plans for offenders high in the Dark Tetrad dimensions.
- Future research should look at differences in general and forensic populations, cultural differences, longitudinal changes, and age and gender differences.

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Reflective report

1. Conceptualisation

The idea for the study came through discussions with my supervisor. We considered previous literature surrounding sensational interests and identified where there might be some gaps. We considered how the literature has looked at sensational interests with both the Dark Tetrad and with different personality traits, but not how both of these have come together to predict sensational interests. We also considered the link between sadism and sensational interests and how there is a paucity of literature surrounding these two topics. It was decided that the study would be conducted on the general population due to ease of distribution which would allow future research to focus more closely on comparisons with forensic populations should significant results be found.

2. Preparation

To prepare for the study, I took time to research sensational interests and how they have been studied in both general and forensic populations. I also looked into what research has found to be predictors of sensational interests and what they have been found to predict. As sensational interests have been commonly linked to criminal offending and antisocial behaviour, such as physical aggression and weapon carrying, I had to consider how I would apply this to the general population and what the results might mean. Preparation for the study also included writing my research proposal and ethics application. This process took some time as the idea for the study was still being formed. I was gathering previous research, looking for gaps, and deciding what a realistic study would be that would still be a valuable addition to the existing literature.

3. Design

Designing the study was a moderately simple process, as the questionnaires that I was using already existed. As I was using four separate questionnaires, after some consideration, it was decided that I would use the short versions of each scale, where possible, in order to avoid participation overburden and ensure that as many participants as possible would see the study through to the end. As the Sensational Interests Questionnaire (SIQ) used a different Likert scale to the other measures, it was considered whether this should be changed to ensure that all scales were in line and to avoid any confusion. However, due to the nature of the SIQ, it was decided that it would be kept in its original form so that negative scores remained as a dislike, positive scores meant a liking for each activity and a score of zero meant 'no opinion.'

4. Data collection

The data collection was a simple process. As the study was an online survey, it meant that distribution was easily done through social media and meant that a large sample size could be collected without any issues. I advertised the study on Facebook, Instagram, and Reddit.com, which allowed a sample size of 242 participants to be collected. Advertising on these platforms also ensured that a wide demographic could be reached and the sample was varied in terms of age, employment status, and years of education.

5. Analysis

Analysis began as a fairly straightforward process. The data collected was not found to violate any of the parametric assumptions, which meant that I could run the regressions that I had originally planned to. I first ran correlations to see how the HEXACO personality dimensions were associated with the Dark Tetrad

dimensions followed by correlations to see how both of these correlated with the two SIQ subscales. Following the correlations, I ran two regressions, one for each of the SIQ subscales to see which traits were predictors of sensational interests. Initially, some of the results from the regression did not match that of previous literature. However, it was considered that some results may be false positives due to a large sample size, and so after reducing the significance criterion to $p < 0.01$, the data collected aligned with that of previous literature.

6. Write up

The write up was a lengthy process. It initially took me a while to gather all of the past literature that I wanted as I needed to do research into all of the separate areas of sensational interests, the Dark Triad, sadism, and the HEXACO personality traits. I needed to examine how all of these different aspects had been researched separately and how they had been linked together, whilst filtering the most important parts. The methods part of the report was a simple process to write. I felt comfortable with this section due to the past research papers that I have written. The study itself was a straightforward one to run which meant that explaining the process was simple. The results took a little time to write as the analysis that I conducted was new to me so I wanted to ensure that I was writing all of the statistics up in the correct manner. I looked through previous papers and checked online to make sure that all of the correlations and regressions were reported correctly. The discussion section of the report was the most difficult for me. I was able to talk about the results fairly easily and what they meant in terms of the hypothesis and in terms of previous literature. However, it took me a little longer to evaluate the implications of the findings and how they could be used going forward. I looked at previous examples of literature for ideas to see how my

study might be useful in future research in this area and where there were still gaps in the current knowledge.

7. Changes to original proposal

The main change to the original proposal was the extent of the previous literature included. As time went on, I could delve further into the background of sensational interests and gain more knowledge on the area. This also led to a change in the hypotheses as it became clear that the original hypothesis was too narrow for the scope of the study. For this reason, the hypothesis included in the study was created retrospectively with the consideration of all previous literature.

8. Strengths

One main strength of the study was its design. The online nature of the study meant that it was very easily distributed, with minimal costs and resources and could reach a wide range of people. It also meant that it was straightforward for participants to navigate, meaning that as many people as possible would see the study through to the end and that their responses were as honest and accurate as they could be. The results from the study were very clear and easily applied to previous findings.

9. Challenges

One of the main challenges that I had to overcome was the initial results from the regressions. Some of the results were not in line with what previous literature has consistently found. However, after deciding to use a significance criterion of $p < 0.01$, the results became more clear and in line with past studies. Another challenge I faced with the results was some confusion with the correlations. My results suggested that low agreeableness was a significant predictor of sensational

interests however, it was not significantly correlated with either SIQ subscale. After some research, it appeared as though this personality trait could be a suppressor variable meaning that it could not predict the SIQ subscales by itself however, when put into the model with the other dimensions of the HEXACO, it was a significant predictor.

10. What have I learnt?

Completing the study has taught me a number of new skills. Having never used the JISC online surveys before, this was a new experience for me. I had to learn how to navigate the website in order to build and distribute my survey. Another thing I learnt was how to run and report multiple regressions as I have never had to run this particular sort of analysis before. I also learnt a lot about the topic of sensational interests and the Dark Tetrad. As a psychology student, I already had some knowledge of the Dark Triad and its different dimensions but the addition of sadism was a new area for me. Sensational interests was a brand new topic for me, having never studied it before so I had to do a lot of research into this and ensure that I had a thorough understanding of what it was as well as the separate subscales.

11. What could be done differently?

If the study were to be done again then one thing that could be changed is the use of the full scales rather than the short versions. Although the short versions of the scales used have been found to be reliable, it would be interesting to see if there would be a larger effect, or any different results, should the full versions of these scales be used. I would also look into the associations with criminal behaviour as sensational interests have been repeatedly linked to topics such as weapon carrying and physical aggression. The Dark Tetrad dimensions have also

been seen in those who have had contact with the criminal justice system. The study could have had another measure or separate analysis that considered how people high in sensational interests and the Dark Tetrad differ in terms of criminal activity compared to those low on these measures.

12. Supervision

Supervisions were a useful tool in the planning and analysis process of the project. My first supervision on 24th October 2018 allowed the idea of the study to materialise. As Vince has been involved with many studies regarding sensational interests, he introduced me to the topic and we discussed what previous studies have found regarding this area and what sensational interests have been linked to. My second meeting on 12th June 2019 was important for the analysis of my data. Vince and I went began looking through the statistical analysis once all of the data had been collected. This supervision was very useful for me as I have not had to use SPSS for more than a year and this was a new type of analysis for me so it was important that I was clear on everything that had to be done to ensure that the results were analysed correctly.