

Heavy metal and violence

Structure of the presentation:

1. Introduction
2. Observation and data analysis
3. Neurophysiology
4. Psychology
5. Conclusion

1. Introduction

Stereotypes

- Extreme music is for extreme people
 - *"We've never given in to the ways of the world... Yet it is the tenacity that encourages people to find their own ways to step up and deal with whatever issues they may have. There is that type of connection."* --- David Vincent (Morbid Angel)
- Nerds/introverts/socially awkward prefer metal

Stereotypes cont.

- **Violence** are highly related with and inspired by the music
 - “*Music at loud volumes goes into your bones and violates a prisoner's inner being as well as their external environment.*” --- the Guardian
 - Music is sometimes weaponized.



Music has the power to cloud reason, stir rage, cause pain, even kill.

Illustration by Erik Carter

Phenomena -

THERE ARE MUCH VIOLENCE HAPPENING
WITHIN HEAVY METAL...

- Types of violence - physical/actions
- Mosh pit
- Circle pit
- Wall of death
- Diving/crowd surfing
- Arson (black metal)
- Accidents and riots (0:32-1:55)
- ...

- **Types of violence – suicide/murder**
- Some notorious cases...

Things that cause school shootings (according to the media and politicians) [edit]

- Video games, especially first-person shooters (Designing video games is a bonus)
- Heavy metal music
- Lack of classroom pray The 17-year-old student who shot his way through his family and a tribal school in northwest Minnesota Monday (March 21), leaving 10 people dead, including himself, was described by a
- Neo-Nazis fellow student as a quiet boy who was into goth culture, listened to heavy metal music, wore "a
- Students and faculty nc big old black trench coat" and "talked about death all the time."
- Antidepressants
- Goth clothing and culture
- The Internet
- Homosexuality The UK's biggest-selling daily newspaper **The Sun** published a story that stated, in part, that a
- School curricula that alle song named '**School Wars**' by heavy metal band **SLIPKNOT** may have prompted massacre
- The teaching of evolution fiend to go on his rampage...American band **SLIPKNOT** wear macabre masks on stage. And
- And, as a summary of se expelled pupil **Steinhaeuser**, a 19-year-old Satanist, was masked when he shot dead 13
- Girls who won't have se teachers, two teenagers and a cop at his old school in Erfurt, Germany.

All of the above are purely speculative and are merely the opinion of the media and/or politicians that support these views. While there may be some correlation evidence, none of the above should be considered to be a direct cause of school shootings.

2. Observation and data analysis

More general correlation?

- Heavy metal popularity and crime index geographically
 - # of bands per capita
 - % of active bands
- not really correlation

- Sales and charts
- # of listeners per capita
- Quality

Why stereotype? Reasons...

Heavy metal

- Musical/extra-musical elements
- Elements have impact on cerebral/emotional activity
- Activities lead to violence

The sound/music itself

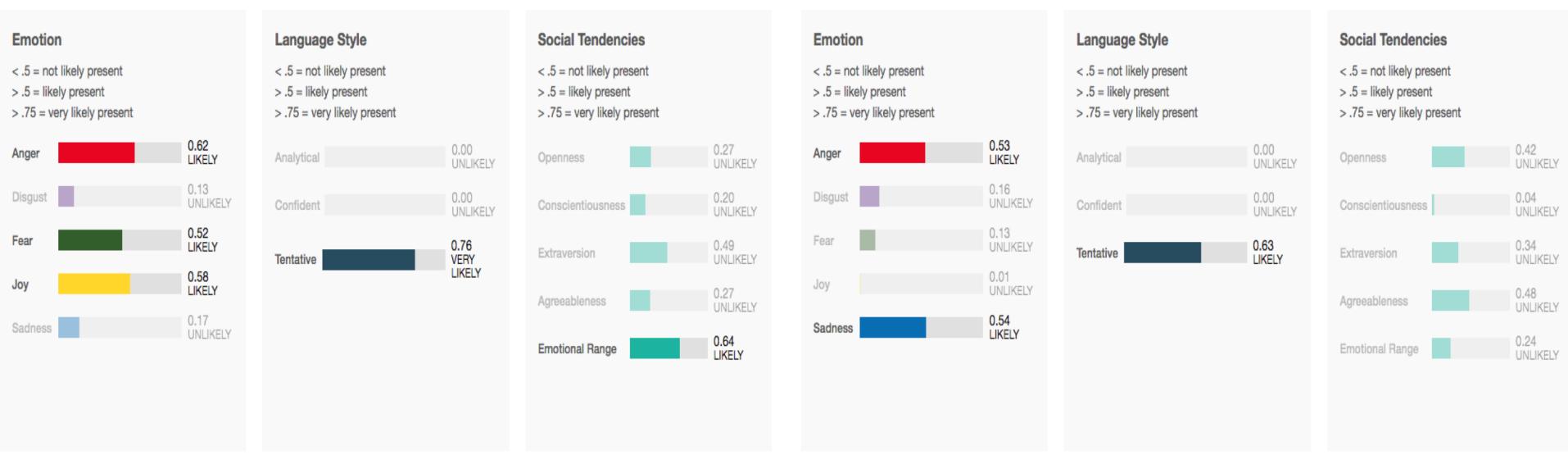
- Loudness (amplification)
 - Loudness map by genre
- Noisiness (distortion)
 - Where does noise come from?
 - Amplification (raise of voltage) → distortion (waveform tends to be "continuous") → "noisy"

→ Heavy metal is perceptually LOUDER and NOISIER than other genres

→?..

Lyrics

- Revisit: the triggering songs
- ([Demo](#)) Example: Ozzy Osbourne's "[Suicide Solution](#)"
- How? Can we trust the machine? Related:
[Spotify web API](#): get audio features of a track
- (For geeks: Algorithm used is called [Truffle Pig](#))



- AC/DC's "Night Prowler"

- Ozzy Osbourne's "Suicide Solution"



- Slipknot's "Duality"

- Marilyn Manson's "The Beautiful People"

- Mastodon's "Oblivion": sadness
- Gojira's "The Heaviest Matter of the Universe": fear
- Opeth's "Forest of October": sadness
- Baroness's "Take My Bones Away": sadness
 - Heavy metal song lyrics **express** sadness and anger, tentative, but differ from sub genres
 - A venting-out?...

Music and lyrics combined

- (Demo) KLANGSPEKTRUM

→ Heavy metal music is highly energetic
→ A venting-out?...

Emotions

- “*There were some songs born with a riot.*” --- Motoji Matsuda (an anthologist at Kyoto University)
 - When a riot happened in Nairobi, a protest song was sung by a large crowd.
- A bunch of songs were born with **wars**
 - After the thirty years war, march of the Finnish cavalry was made in Finland.
 - “The army goes rolling along” official song of the United States Army.

- Heavy metal popularity and crime index geographically **not really correlation**
- Heavy metal is **LOUD**
 - Heavy metal is perceivably **NOISIER** than other genres
 - Heavy metal music is highly **energetic**
- A venting-out?...
- 7/7 cases related to heavy metal show correlation with **personal and familial reasons**, coincide with heavy metal, music is not to blame
 - Question still remains...

3. Neurophysiological point of view

Generally about human behavior

→EMPATHY

Be able to feel emotions of each other
or in the case of the music understand the composer's intention

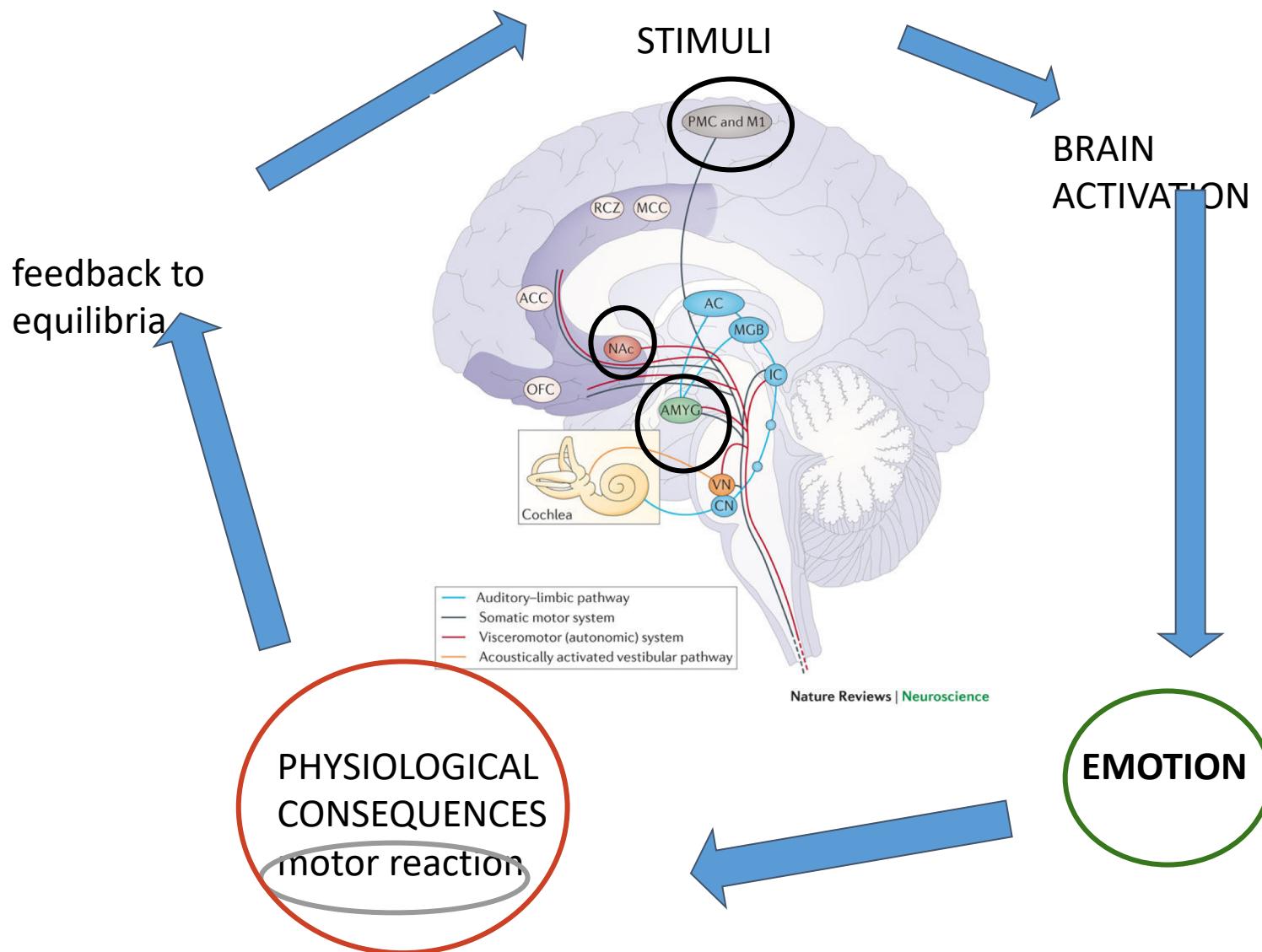


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b



How is Music perceived?



Can we establish a link between angriness and the music like heavy metal ?

Extreme metal music and anger processing, published in 2015, in Frontiers in human neuroscience Leah SHARMAN & co

- extreme music causes anger
- extreme music matches and helps to process anger

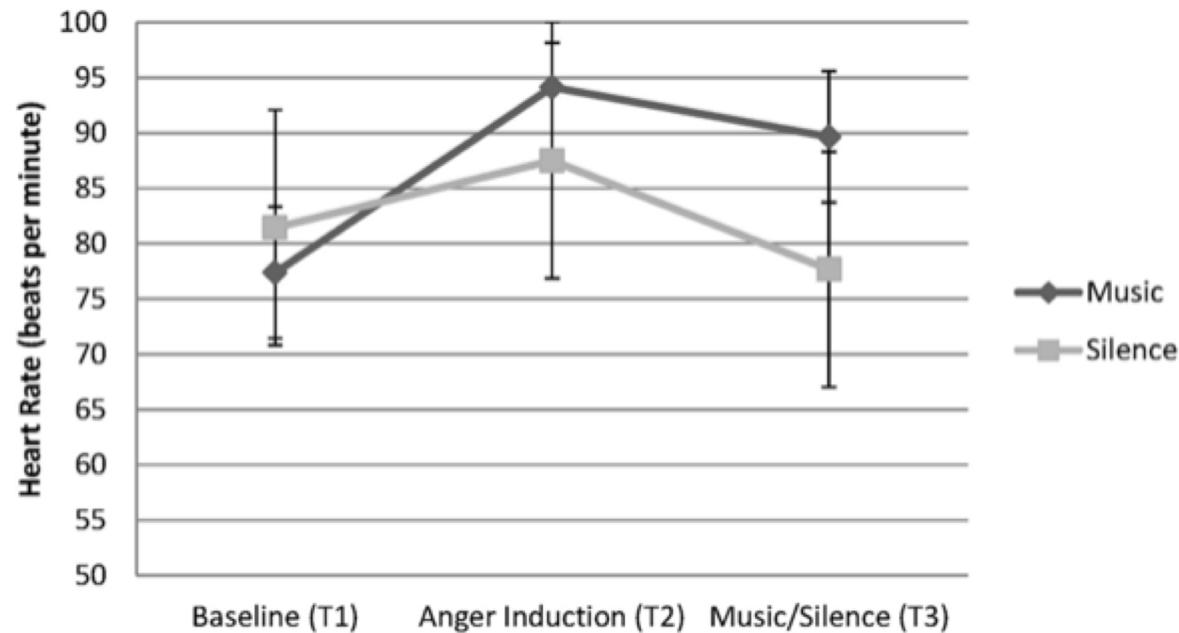
Extrem metal music and anger processing, published in 2015, in Frontiers in human neuroscience Leah SHARMAN & co

protocol :

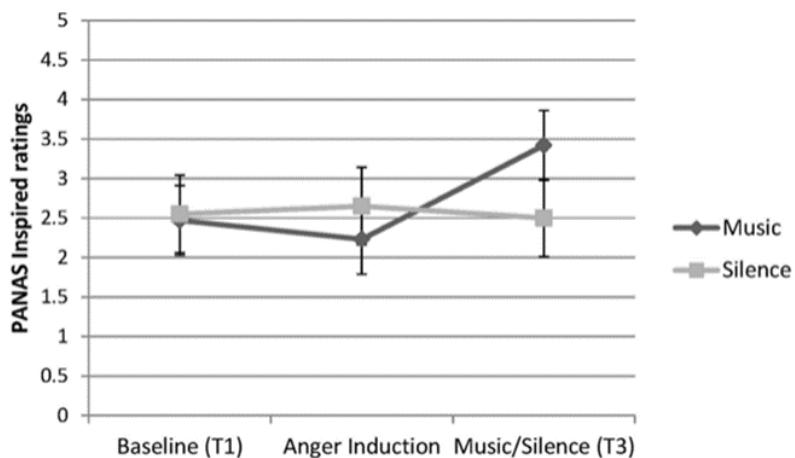
- Among a population of heavy metal listeners
 - 3 conditions (adding to the baseline) :
 - > Angry interview = stress condition
 - > Music
 - > Silence

The scientists picked up the heart rate and presented a PANAS to the sujet

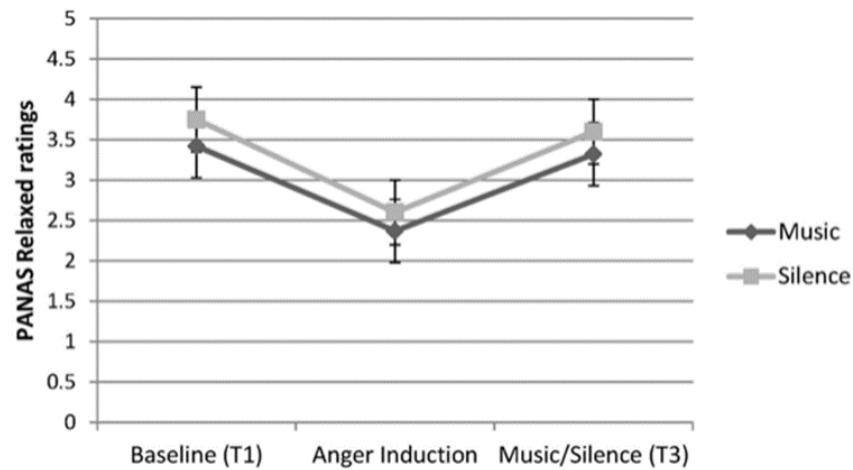
Heart rate increases for angry condition and stays high with the heavy metal listening whereas decreases dramatically in the silent condition.



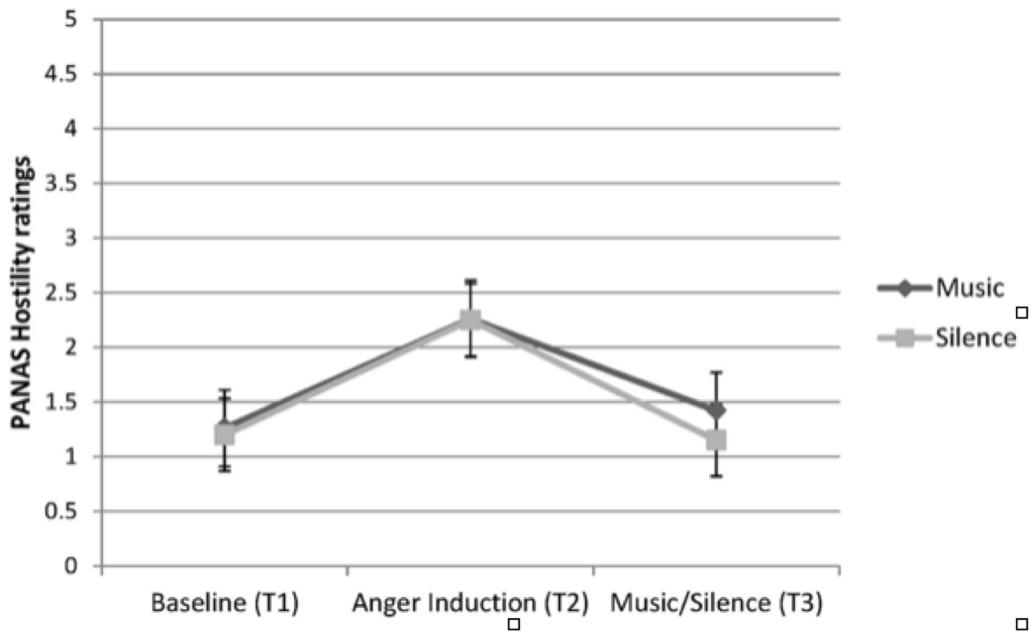
Heavy metal listeners feel more inspired listening Heavy Metal than in the silence condition and the stress condition



Heavy metal listeners feel as relaxed listening Heavy Metal as in the silent condition.



The hostility decreases in listening heavy metal as the silent to compare with the stress condition.



Can we establish a link between angriness and the music like heavy metal ?

Heavy metal brings positive emotion to Heavy metal listeners.

The study doesn't demonstrate a correlation between angriness and heavy metal

The hypotheses to explain the high heart rate is that Heavy increase a motivational behavior of metal listeners.

Psychological point of view

Psychological perspective on aggression

Based on a study article: Resting arousal, sensation seeking, and music preference (McNamara & Ballard 1999)

Key terms:

Resting arousal: the level of activity in various bodily organs during inaction

Sensation seeking: need for varied, novel and complex experiences, and willingness to take physical and social risks to get them

Both of these are highly affected by innate physiological characteristics

→ study: **is there a relation between these two and music taste?**

Concerns about rock music and behavior

(In this study rock music includes heavy metal)

Concern about aggressive behavior

Concern about antisocial behavior

1) Aggressive behavior

Some studies show that violence in lyrics **doesn't affect people's anger and hostility**

Connection between anger and rock music **has not been found in studies**

On the contrary: one study found that listening to heavy metal music while angry, people **relaxed and felt more in control of their feelings**

It has been suggested, that **mood control**, wanting to feel better or intensifying a feeling, is one of the main reasons for music listening

→ Music more a way of dealing with already existing feelings, instead of being the cause for them

2) Antisocial behavior

(= rule breaking and aggressive behaviors)

One study found a link between HM and adolescent antisocial behavior, but connection was altered by parental involvement

Another study found a link between HM and better school grades

Arnett (1991): HM can be seen as an expression of alienated individualism, recklessness and despair, rather than as a cause for it. Demonstration of poor socialization (especially of young men)

Sensation seeking, resting arousal, and music preference

Higher sensation seeking has been shown to be related with preference of rock and HM music

A theory (that has some support from research): need for sensation seeking varies according to the basic level of emotional and physiological arousal

Low basic level → more need for stimulating surroundings

High basic level → more need for nonstimulating surroundings

Tendencies such as antisociality, behavior disorders, delinquency, substance use, being convicted for a crime, are typically related to a need for extreme amount of stimulation from the surroundings

Are sensation seeking, resting arousal, and music preference connected?

In this study, these three are connected in men, but not in women

Men who have higher SS and lower RA, listen to more arousing music → men may need more stimulating music to reach optimal level of arousal

Discussion: listening to highly arousing music (like HM/rock) can satisfy the need for intensive experiences, and this way decrease harmful ways of thrill-seeking

→ So instead of causing violent behavior, it may as well decrease it!

5. Conclusion

Conclusions

1. No correlation between HM and violence in the data analysis
2. No correlation between HM and Angriness , but HM implies positive emotions
3. Instead of causing violent behavior, HM may as well decrease it

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Thank you \m/