Attributes of Songs People Love and Listen to Most Often

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1

Intentional re-listening: An example

"On my computer, the play count for the song "Randy Described Eternity" is 406. But I've also listened to it in my car, on the subway and on YouTube. The song is from the 1997 Built to Spill album "Perfect From Now On," which turns 15 this year. And apart from playing a few other Built to Spill records for variety..., I haven't voluntarily listened to anything besides "Perfect From Now On" since May 2011."
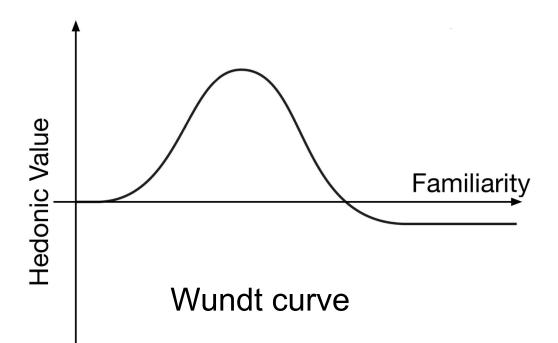
Katie Arnold-Ratliff from "Songs I can't let go," Salon.com (April 23, 2012)

A Puzzle

- Recorded music is ubiquitous and makes it easy to listen repeatedly to <u>exactly the same song</u>
- People may listen to favorite songs daily or more often

- Listening to familiar songs yields few surprises
- Yet listeners love the songs they listen to most often
- Why do they remain interested?

Re-listening and musical enjoyment

- Repetition may increase and/or decrease listening pleasure

Wundt curve

Re-listening and musical enjoyment (2)

- Margulis (2014):
  - perceptual fluency mistaken for liking until misattribution recognized
  - familiarity is pleasing until replaced by novelty seeking
  - engagement (through repeated listening) highlights new aspects of same sounds
- Huron (2006): predictability can be pleasant, but lack of surprise may reduce pleasure
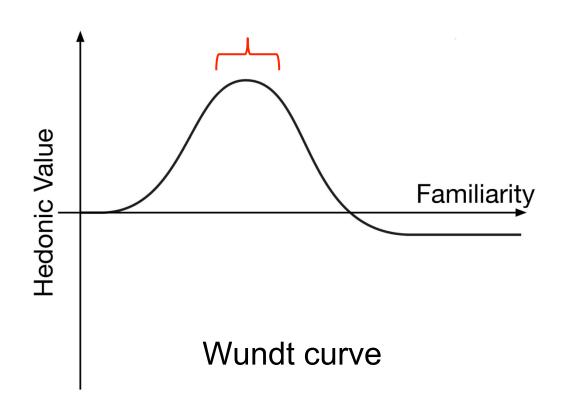
Research Question

Why do listeners intentionally listen to the same song over and over?

- How do they feel when listening to it and how do their experiences relate to its features?
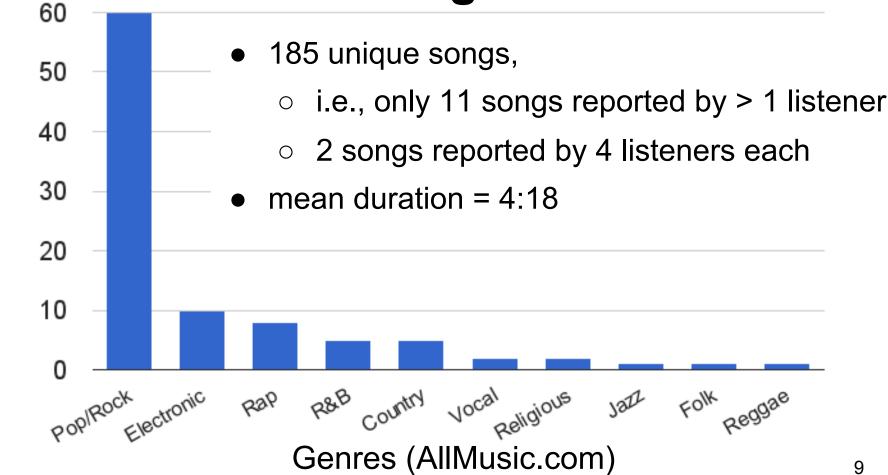
The Study

- Survey of 204 Mechanical Turk listeners
- Listeners asked for the "one recorded song that [they] intentionally listen to most often these days"
- 27 questions about that song
  - Note: song chosen by participant (not researchers)
- 7 demographic questions
- Data collected 9/30 to 10/9, 2013
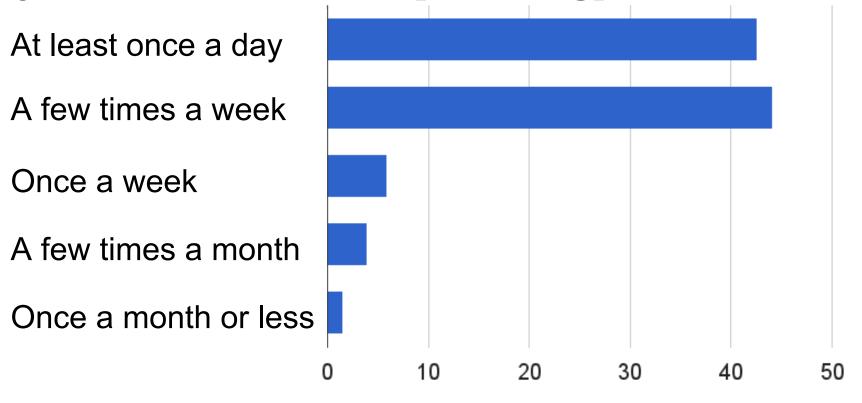
Presumably hedonic value is high

Wundt curve

Songs

- 185 unique songs,
  - i.e., only 11 songs reported by > 1 listener
  - 2 songs reported by 4 listeners each
- mean duration = 4:18

% (y-axis)

Genres (AllMusic.com)

Bar chart with genres: Pop/Rock, Electronic, Rap, R&B, Country, Vocal, Religious, Jazz, Folk, Reggae

"Would you say that, in the last few weeks, you have listened to [the song]:"

At least once a day

A few times a week

Once a week

A few times a month

Once a month or less

0   10   20   30   40   50

%

Frequency of listening

- For those who listen at least once a day (N = 87), Median # listens per day = 3.00

- 60% of listeners listen to the song "a second time (or multiple times) immediately after listening once."

Total listening

- "About how many times in total would you say you have listened to [the song]?" Median = 100

- These listeners were clearly engaged with the song they listen to most often

Analytic Strategy

- Examined relationships between affect while listening and other variables

- "Please tell us briefly how [the song] makes you feel. If you're unable to, just skip to the next question."

Affect coding

- Because affect question open-ended, coded participants' text into affect categories
- 2 coders independently classified open responses into 34 categories (kappa=0.81)
  - 23 cases uncodable
- Jointly aggregated into 3 categories:
  a) Happy/Energetic: 69%
  b) Calm/Relaxed: 15%
  c) Bittersweet/Melancholy/Nostalgic: 16%

How does the song make you feel?

- Happy/Energetic (n=108) examples:
  - "It makes me feel very upbeat and energetic."
  - "The song makes me feel like I want to party."
  - "It just makes me happy, it puts me in a good mood."
  - "Pumped up! Excited! Ready to dance, sing, and love!"
  - "Just gets me pumped up, it's a really upbeat song and it gets me going."
  - "It makes me feel happy. Feel upbeat and good about life and myself"
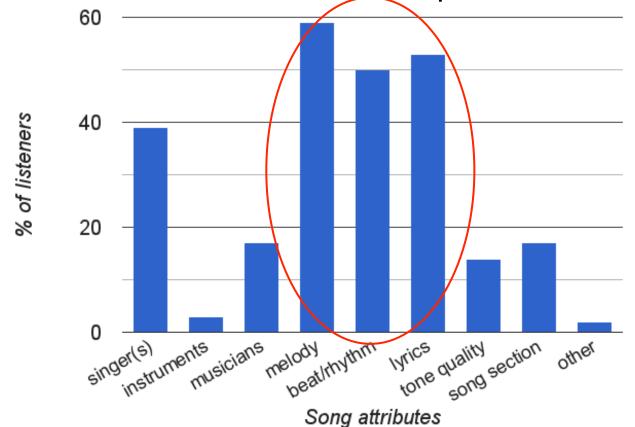
How does the song make you feel?

- Calm/Relaxed (n=23) examples:
  - "It makes me feel calm and at ease."
  - "The song just calms me. The combination of the melody and Sting's voice are soothing."
  - "Just helps relieve stress."
  - "It makes me feel relaxed, makes me feel young, makes me miss my husband when he's not home."
  - "Soothed and comfortable"

How does the song make you feel?

- Bittersweet/Melancholy/Nostalgic (n=26):
  - "It makes me feel sad. But not the bad kind of sad, and I like singing with it."
  - "It fills me with bittersweet feelings, the sadness of losing those times, but finding the joy in the memories"
  - "It makes me feel like I'm understood, but it also makes me think about a sad part of my past."
  - "It makes me feel nostalgic and wistful. It makes me think about people and places I used to know."

What brought listeners back to songs?
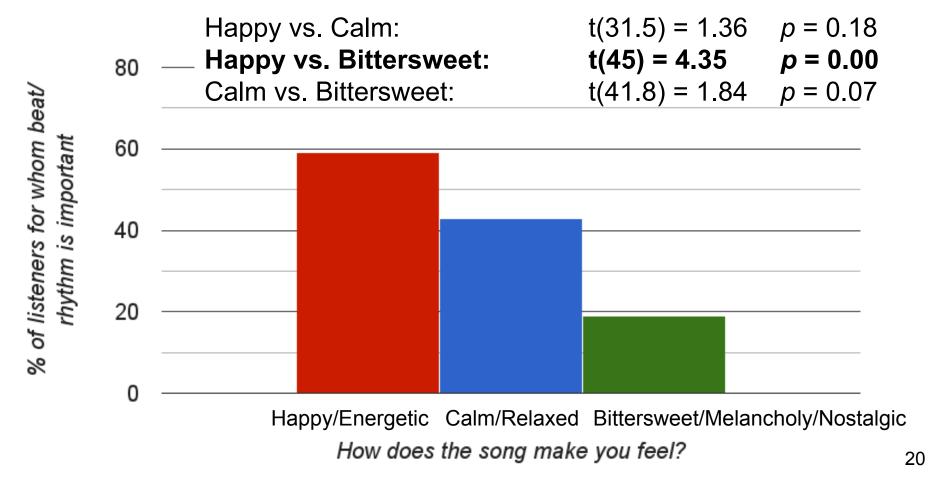
Listeners were asked to select up to three attributes

Song attributes and listeners' affect

- Listeners whose songs made them feel <u>Happy/Energetic</u> were ***more likely*** to listen because of the Beat/Rhythm
- Listeners whose songs made them feel <u>Bittersweet/Melancholy/Nostalgic</u> or <u>Calm/Relaxed</u> were ***less likely*** to listen because of the Beat/Rhythm

Beat/Rhythm and affect category

Happy vs. Calm:	$t(31.5) = 1.36$	$p = 0.18$
Happy vs. Bittersweet:	**$t(45) = 4.35$**	**$p = 0.00$**
Calm vs. Bittersweet:	$t(41.8) = 1.84$	$p = 0.07$

% of listeners for whom beat/ rhythm is important (y-axis)

Happy/Energetic · Calm/Relaxed · Bittersweet/Melancholy/Nostalgic

How does the song make you feel?

Deepness of connection

How deep is your connection to [the song]?

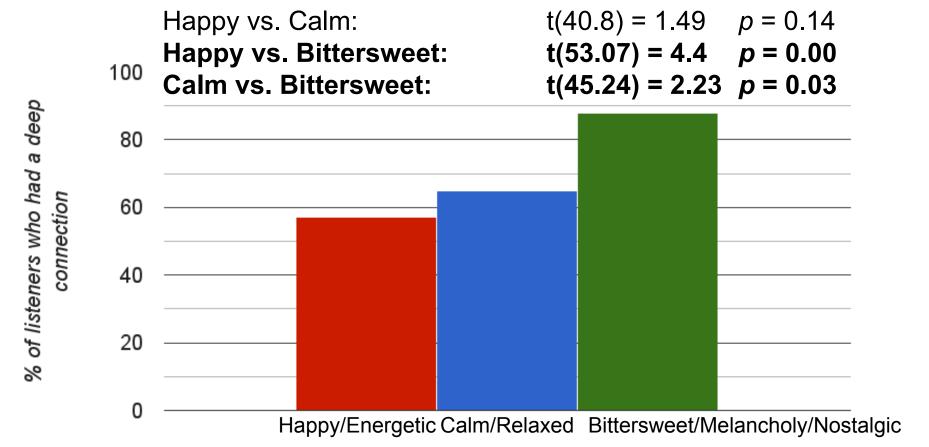| 1	2	3	4	5
not at all deep				extremely deep

- Mean = 3.73 (S.D. = 0.93)
- We collapsed responses 1-3 into "not deep" and responses 4-5 into "deep"

Deepness of connection and listeners' affect

- Deeper connection to songs that made listeners feel:
  - Bittersweet/Melancholy/Nostalgic
- than:
  - Happy/Energetic
  - Calm/Relaxed
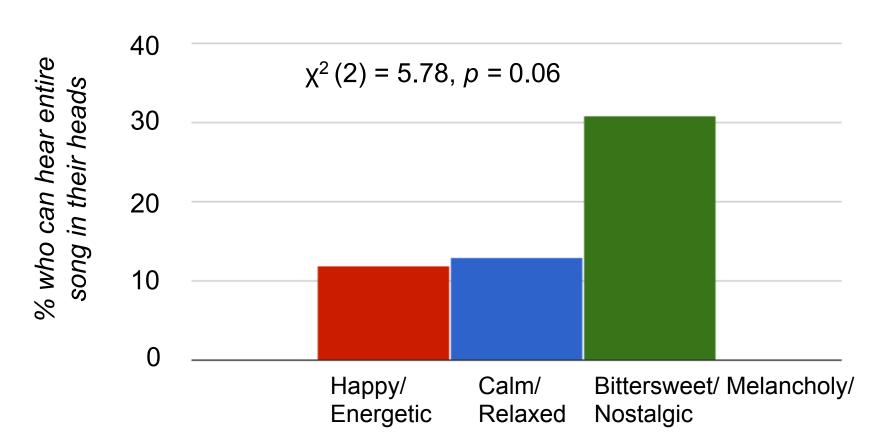
Deepness of connection and affect category

Happy vs. Calm:	t(40.8) = 1.49	*p* = 0.14
Happy vs. Bittersweet:	**t(53.07) = 4.4**	***p* = 0.00**
Calm vs. Bittersweet:	**t(45.24) = 2.23**	***p* = 0.03**

% of listeners who had a deep connection (y-axis)

Happy/Energetic · Calm/Relaxed · Bittersweet/Melancholy/Nostalgic

How does the song make you feel?

Beat/rhythm and deepness of connection inversely related

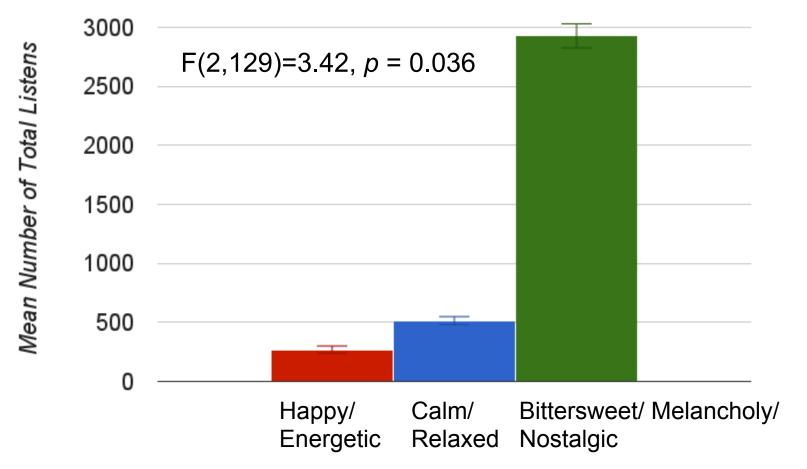|	Happy/Energetic		Bittersweet/Melancholy/Nostalgic	
	β	p	β	p
Beat/rhythm	1.300	**0.004**	-1.664	**0.01**
Deepness of Connection	-0.635	**0.005**	0.940	**0.003**
Beat x MusBkgd	-0.246	0.669	-0.078	0.934
Deepness x MusBkgd	-0.101	0.262	0.118	0.273

How much can people hear in their heads?

- How much they can hear internally may depend on how song makes them feel

- Most people can hear at least some of the song in their heads

  - 98.5% said "yes" when asked if they can hear the song when not listening to it

- We asked these participants *how much* of the song they could hear in their heads
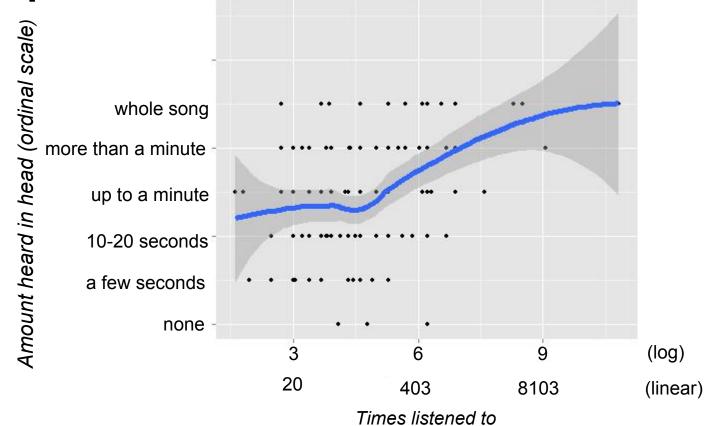
Hear entire song in head by affect category

$\chi^2 (2) = 5.78$, $p = 0.06$

Y-axis: % who can hear entire song in their heads (0, 10, 20, 30, 40)

X-axis categories: Happy/ Energetic, Calm/ Relaxed, Bittersweet/ Melancholy/ Nostalgic

Mean total listens by affect category

F(2,129)=3.42, p = 0.036

Mean Number of Total Listens

Happy/ Energetic   Calm/ Relaxed   Bittersweet/ Melancholy/ Nostalgic

Does amount of listening affect how much people can hear in their heads?

Summary

- People listen to favorite songs many, many times, even though simple in musical structure (60% pop/rock)
- 3 clear affect categories leading to <u>different</u> experiences
- Beat/Rhythm leads listeners to re-listen to songs that make them feel Happy/Energetic… but not to songs that create other feelings
- Deeper connection to songs that make them feel Bittersweet/Melancholy/Nostalgic than to songs that create other feelings
- More listeners can hear entire song in head when it makes them feel Bittersweet/Melancholy/Nostalgic

Why do listeners intentionally listen to a song over and over?

- The reasons people listen to songs over and over may guard against their "growing old" with extensive exposure
- When listeners feel Happy/Energetic and Calm/Relaxed, novelty may not be a priority
  - songs are used to regulate mood (self-medication?)
  - Listeners want the same experience each time
- When listeners feel Bittersweet/ Melancholy/ Nostalgic, these contradictory feelings may keep the song interesting
  - listeners feel understood and comforted that others (the artist) feel the same way

Conclusion

- Replaying songs very frequently is ubiquitous
- The mix of cognitive and emotional factors leading to this behavior seems to depend on how the song makes listeners feel
- Current explanations for how exposure affects enjoyment may need rethinking

Thank you!

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