Congenital and Parent-of-Origin Prediction Factors and Risks of Baby Jazziness in Americana Live Births

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Abstract

In this paper, we're talking about jazzy babies. The association with the American jenotype and malformations of the jazz-rhythmic thorax glands is a well-studied risk leaving many parents wondering whether or not their baby will be jazzy enough for their five piece ensemble. While certain populations have been measured as 64% Jazzy on the Brubeck scale [1], there has been a decrease in jenetic jazz alleles across all demographic groups. While some believe that these factors may be caused by a change in cultural musical taste, many genetic predictors suggest a drop in jazzy-jenes which allow American children to follow a 5-6 Mixolydian swing beat with a flat eighth. In this study, we will provide two parental prediction factors measured in 813 families and three genetic prediction factors which shows up to a 1.42 factor (CI 95% 1.30,1.54; P=4.57×10^-7^{-7}) increase in jazziness.

Keywords: Jazzy-Jenomics, Monk Jene, Jazzy Babies, Rhythmic Thorax Abnormality, Paternal-Jazz Risk Ratios

1. Introduction

Genetics is the code of life. Just like most computer code, it is largely undocumented and remains a mystery. Jazz is America's gift to the world of music and jenetically speaking a mystery. I put a ton of jazz in my labor and delivery playlists and I only hear good things about it from my nurses. When they come out of that delivery room I always hear the same thing from many of the parents. They say "Dr. Joe? Do you think my baby's gonna be that jazzy?". Many may think that jazziness is a result of the influence of pre-existing musical genres, the science has been clear that jazz is a jenetic abnormality allowing certain blessed Americans to hear a melody where others hear noise, to feel a rhythm where most can't clap along, or to hear a song where there only seems to be an unrelated series of notes only linked together by the fact that they came out of the same instrument within the same self indulgent solo.

Jazz is not only an important piece of American cultural heritage, but it gives society instrumental music that's actually interesting to listen to when you're reading or writing and can't listen to the lyrics. While some say, orchestral Philharmonic or certain instrumental metal cores may fill that role, recent studies have found that people will judge you for being pompous or unnecessarily aggressive in large groups or crowds with the exception of surf rock [2]. When you listen to jazz, you're just cool. When all other musical genres are analyzed, nothing beats jazz.

Figure 1: Ultrasound of Jazzy Baby Gestating in the womb practicing blues scales on the Alto-Sax

But jazz is under attack. The percentage of the jazzy-jean demographic has been declining at a rapid rate [3]. Many propose that the youth have become too lazy and stick to simple chords and rhythms by TikTok famous singer songwriter types [4], a cross analysis has suggested that the

authors of [4] were actually just old and out of touch [5]. Something else was going on. For jazz to flourish a population of musicians must contain musicians at a rate of 5% or higher above the 96% Brubeck Scale (BS) threshold or the Coltrane Criterion (CC) for detecting a jazz master. Additionally, there must be a large enough population of jazz appreciators at a 30% BS or higher [6].

2. Background

This is not the first paper attempting to crack the jazz jenome. From 2008 to 2011, after the successful cloning of Dolly the sheep, an effort was under way to clone Louis Armstrong [7]. Despite having access to an excessive trumpet spit collection from The Satchmo himself and an ungodly amount of funding when investors realized the market capital of obtaining another *What a Wonderful World* hit from licensing to movies and wedding montages, the effort failed due to a lack of genetic modeling and research unable to create a throat sound gravely enough [8]. The proto-Louis’s were additionally too young to evaluate and got loose when someone compassionate left the gate to the holding pen open. Due to the controversial cheek enlargement surgeries, it is believed that it was an inside job.

Soon, evolving genomic technology such as DNA microarrays and advances in computing such as Windows XP as well as the completion of the human genome project accelerated the genetics revolution of the aughties. When anyone with a statistics background rebranded as a data scientist in the teens, python became usable, and companies such as *23 and Me* began collecting massive amounts of data so that people wouldn’t need to scrap books to know their origins, genetics caught on like wildfire. It was in our Jupyter Notebooks filled analysis bender that [9] was the first to map out the jazzy-jene by swabbing the spit stains from the brass section at Cranberry Lemon’s prestigious jazz band. Following the landmark study, Blinky “Fingers” Malone was the first to notice a decline in the jazzy-jean population when comparing 90s and 00s microarray data to the present [3].

While some may believe that a drop in jazzy jenes will only cause an increase in boring normie rock or more country ballads, jazzy-jenes are known to prevent serious diseases. Shown in [10], an increase in jazzy-jenes showed an incredibly strong immune response to fratty behavior such as drinking hard seltzer and wearing salmon colored polo shirts while listening to songs about chicken fried steaks.

Some traditional medical practitioners have not been favorable to jazzy-jenes. Dan Smith was alarmed by a high correlation measured between jazzy-jenomics and cardiac arrhythmias [11]. It was later shown in a spite paper [12] that the measured arrhythmias from [11] were actually a bebop beat and that “Dan Smith don’t know the difference between a snare-snap march and a Swing-drop-scuttle and should not be allowed to practice medicine.” [12] then showed that the arrhythmia prone hearts were not only resistant to cardiac complications but that they could feel.

Figure 2: Poly-rhythmic EKG of a class 6 Jazz legend

3. Parental Predictors

Children taking after their parents isn’t just a concept my father refuses to believe in, it’s science! It’s also the easiest way to predict whether or not a parent’s baby’s gonna be jazzy or not. When it comes to parental predictions of baby jazziness, it is difficult to nail down causation and correlation [13]. Some parents may have recessive jazzy-jeans which may produce a jazzy baby from not so jazzy parents. Likewise, jazzy parental traits may manifest due to long term second hand or first hand jazz exposure after the birth as shown in [14]. As discussed in [14], given enough second or first hand exposure to open air jazz at twenty or more album-years[1], a parent’s genetic make up may mutate into a jazzstrocity. Whether or not a parent's jenetic makeup is mutated before conceiving a child, due to the likeliness of the child’s second hand exposure to jazz post birth and mid-adult transformation, it all ends up coming out in the wash. In this paper, two qualitative parental metrics will be presented to predict baby jazziness.

3.1 Toe-Tappin-Test

If you have the parents visiting before the birth, here’s an easy little test you can do. Play something with a swing in it. Maybe start with something simple like an old Big Bad Voodoo Daddy classic and see if you get some tapping going

[1] An album-year is a common metric to measure a patient’s exposure to jazz in which one album-year is equal to listening to one jazz album per day for one year. Album-years increase as patients are exposed to harder stuff such as Coltrane or Mingus

from the parents. Now if you want to really confirm your hypothesis and achieve a strong statistical result, a sure fire method was developed in [15]. Play Herbie Hancock’s Watermelon Man and start a timer. As the song progresses from the Pygmy yelping to a fat funk baseline, notate when the toe tapping starts and fit the exponential distribution equation below which was calibrated in [15].

$$Watermelon\ Man(jazz) = \hat{\lambda}e^{-\hat{\lambda}t}$$

Estimate lambda by dividing the number of trials by the sum of seconds before toe tapping. If lambda is greater than two minutes, then the subject is unlikely to be jazzy. If less than one minute, then the subject is extremely jazzy, and funky.

3.2 Rhythmic Thorax Gland Abnormality

As previously mentioned from the spite paper [12], jazzy people often have different heart patterns. This has been analyzed from the autopsies of the bodies of the South Detroit High Top Steppers Drum and Bass marching band after the tragic dump truck St Patty’s day massacre. Jazz rhythms come from an abnormally large Thorax gland in the lower abdomen. Once thought of as vestigial, the rhythmic thorax regulates the rhythm center of the body. Centering the rhythm in the gut and not in the brain threw off scientists for decades.

Most humans have a medium sized rhythmic thorax about the size of a quarter connected through neural tissues and blood vessels to sense heart pressure. As jazz jenes transform the body, the rhythmic thorax can grow as large as a plum allowing for the body to sense and respond to complex polyrhythms.

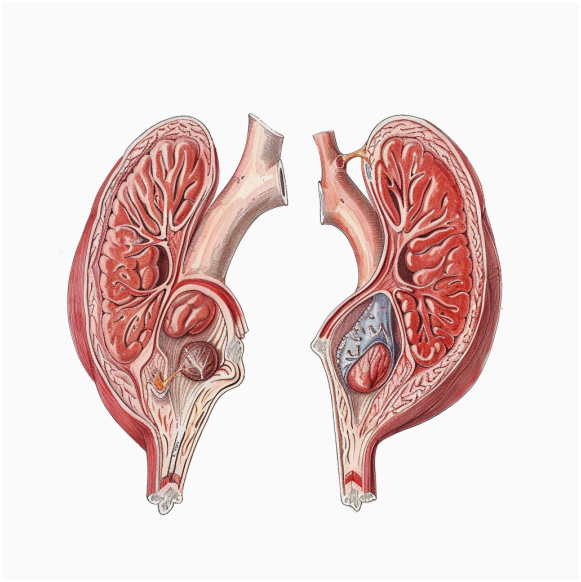

Figure 3: Anterior and Uncleterior Rhythmic Thorax Gland

To assess the patient's rhythmic thorax without an ultrasound, subject the patient to a series of various time signatures that have nothing to do with each other. Measure their heart beat. Be sure to mix in some 7/6’ths with some 9/4’s and rarely stick with the 3/3’s. Every thirty seconds shout “NOT MY TEMPO” and note their ability to keep up with three or more simultaneous beats. Feel how swollen their thorax is just above the patient’s left hip bone.

4. Genetic Predictors

Jazzy jenomics works when mutated jazz cells pass a special type of protein around called a head. While many cells in a non-jazzy body may form completely different proteins based on function, a jazzy cell will always contain head proteins. These proteins may metabolize through scripted or unscripted means or pathways. Whether the head protein follows a diminished scale, or an augmented 7th, it eventually turns the whole body into jazz. These jene types or alleles can be studied by measuring deletions and additional copies of particular patterns in the jazz-jenome also known as Copy Number Variants (CNVs).

4.1 MINGUS Allele Imputation

Of the well known jazz-head jenes is the MINGUS Allele. While this allele is simple to up regulate, it is a rare trace gene which does not often occur naturally in many jazzy jenes unless exposed to secondhand jazz. Any instance of this allele type is a clear sign that a baby will be jazzy. Only the jazziest jenotypes can handle this allele as it adds in noisy cacophonous signals to the rhythmic thorax at blisteringly fast speeds. While living harmoniously in normal jazzy jenomes, a rare mutation of this allele in a non-jazzy jenome can result in chronic dizziness, tinnitus, and a loss of appetite.

4.2 4x4 Allele Gene Deletion

While making up the majority of a non-jazzy jenomic rhythmic thorax proteins, the 4x4 allele group is often deleted in a jazzy-jenome. Throughout patients registering high on the BS spectrum, 4x4 Allele deletions can make it difficult for patients to follow generic rock, country, EDM, and nearly all church hymns. While some 4x4 traces may be found, it is often 93% deleted from a jenome to make room for other rhythmic proteins.

4.3 MONK Allele Abnormality

Normally only activated by alcohol, Monk Alleles fit in a-chromatically within head proteins. Flying in the face of all jenetics, the MONK Allele group’s achromatic arrangements fits in all the wrong SNP’s within a chromosome in an extremely unnatural way that just seems so right. It is a modern medical mystery how the MONK jene’s honky tonk

jenome sequence doesn’t kill everyone that has it, or at least give patients a grab bag of rare diseases, but it works.

5. Data Collection

Despite a very confusing email chain explaining what we were trying to study, we were finally allowed to use the National Birth Defects Prevention Study (NBDPS). When using the jazz detection protocols outlined in [16], we focused analysis on 813 families who were interviewed in person. Each patient was evaluated on the BS scale and additional buccal swab kits were used to collect saliva residue after we asked each participant to toot the jazziest they could into a special trombone as detailed in [16]. Of the 813 families, 127 were excluded. Some were excluded because they had to leave the interview halfway to catch a television show (n=9), more were deemed ineligible because their trombone toot wasn’t jazzy enough or produced a sufficient amount of saliva (n=23), finally most had to be removed from our results because we just couldn’t understand what they were saying (n=93). They may have been extremely jazzy but there was no way to measure.

Due to the vibrational data held within the jazzy allele patterns, genetic material was transformed into the fourier domain before applying log-normal models to each summary statistic. Unfortunately they weren’t normally distributed, and by not normally distributed I don’t mean non-gaussian. We couldn’t find a distribution that fit any of the data and had to cobble together several and invent a new distribution using some kernel fit operation nonsense we hand waved to our reviewers.

6. Results and Discussion

Once each of the jenotypes were transformed into the fourier domain and analyzed using the special new distribution, a total of 1630 SNP’s were included into the final analysis. 1318 of those SNP’s appeared to be positively correlated with an increase in jazzy behavior in subjects while the remaining jenes appeared to show negative correlation. The results of each of the jene and the positive and negative paternally derived risk factors are shown in table 1 for the top 20 jenes. Additionally, the pathway methods in which each gene is metabolized and genotype is shown.

The variety of jenes jenotypes and pathways show that the methods in which jazz may jenetically manifest in a patient is diverse and chaotic. In contrast, many jenetic risks to babies not being jazzy appear to be highly correlated in an uptick in the 4x4 time signature allele or the existence of AC/DC rock gene or the generic country Garth BROOKS gene. As expected, the MINGUS, and MONK are the highest predictor SNPs.

Pathway	Jene Symbol	dbSNP ID	Chromosome	Jenotype	Paternally-derived Relative Risk (95% CI)	P-Value for paternal vs. Maternal effect
Trans-Lead Sheets	MINGUS	rs1234567	2	Avant-Garde	1.23 (1.12, 1.44)	2.66×10^-6
Feels	MILES	rs2345678	3	Fusion	0.35 (0.24, 0.48)	1.22×10^-5
Feels	MONK	rs3456789	4	Bebop	1.42 (1.30, 1.54)	4.57×10^-7
Groovin	GUARALDI	rs4567890	9	Cool	0.29 (0.16, 0.39)	9.88×10^-6
Trans-Lead Sheets	HANCOCK	rs5678901	20	Post-Bop	0.31 (0.21, 0.45)	3.33×10^-6
Groovin	BRUBECK	rs6789012	13	Cool	0.27 (0.15, 0.38)	6.55×10^-6
Trans-Lead Sheets	COLTRANE	rs7890123	10	Free Jazz	0.40 (0.27, 0.52)	2.14×10^-7

Full Scores	GERSHWIN	rs8901234	1	Orchestral	0.36 (0.24, 0.49)	7.81×10^-6
Feels	ELLA	rs9012345	7	Swing	0.32 (0.19, 0.43)	1.05×10^-5
Trans-Lead Sheets	ARMSTRONG	rs1123456	4	Dixieland	0.38 (0.26, 0.51)	4.01×10^-6
Trans-Lead Sheets	COREA	rs2234567	5	Fusion	0.26 (0.14, 0.37)	8.94×10^-6
Feels	ELLINGTON	rs3345678	7	Big band	0.28 (0.17, 0.39)	2.72×10^-5
Trans-Lead Sheets	HOLIDAY	rs4456789	2	Swing	0.34 (0.22, 0.47)	1.19×10^-6
Trans-Lead Sheets	MCLAUGHLIN	rs5567890	8	Fusion	0.39 (0.25, 0.50)	5.49×10^-7
Feels	PARKER	rs6678901	5	Bebop	0.33 (0.20, 0.44)	9.71×10^-6
Full Scores	GETZ	rs7789012	11	Bossa Nova	0.37 (0.23, 0.48)	3.87×10^-6
Groovin	SIMONE	rs8890123	49	Soul	0.30 (0.18, 0.41)	2.53×10^-5
Full Scores	AC/DC	rs9901234	5	Rock	-1.25 (0.13, 0.36)	6.32×10^-7
Full Scores	4x4 TIME	rs1012345	2	Hymn	-1.41 (0.28, 0.53)	1.88×10^-5
Full Scores	BROOKS	rs2113456	7	Country	-1.22 (0.10, 0.35)	4.68×10^-5

Table 1: Risk Ratios (RR) and 95% Confidence Intervals (CI) with P-values for Paternally-derived Effects for the Top 20 SNPs

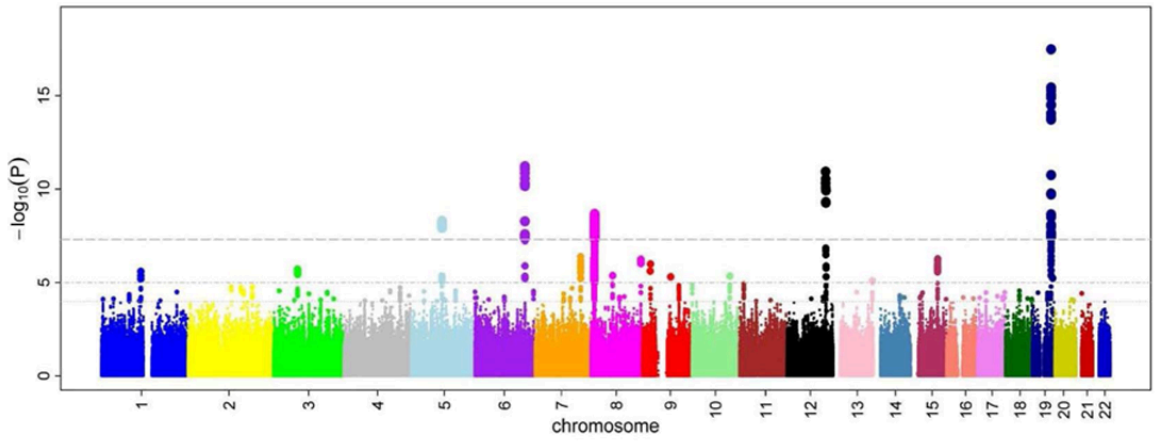

Figure 4: A normal genomic Manhattan plot M. Kamran Ikram et al, CC BY 2.5, via Wikimedia Commons

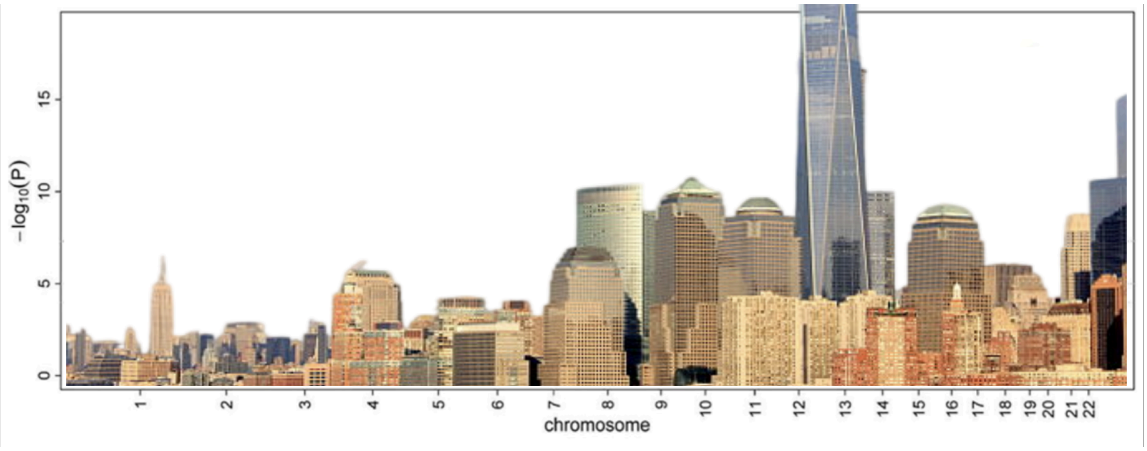

Figure 5: A Manhattan plot of a Jazzy Baby’s Jenomic Sequence

Jenetics, like jazz, is full of noisy signals which don't make sense until you put it all together into a human and have the feel to understand it. For those who can’t do that with raw data, there’s the log scale and clever transforms. When the genetic predictors are fully shown in log scale through a Manhattan plot (figure 5) and shown in comparison to a non-jazzy normal genome (figure 4) the jenetic jazz effect becomes blindingly obvious. Somehow in some way, the Manhattan plot converges into Manhattan. It doesn’t make a lot of sense, until you squint your eyes and let it go fuzzy then, there it is. The big apple.

Although conclusive, many babies were found to be jazzy without jazzy jenomes as described in this paper at a 8.2% rate. Within the interview it was shown that second hand jazz exposure due to pushy spotify daily wind up playlists often led to jazzy babies even without finding a high concentration of jazznetic material correlating to other jazzy babies. Ya know what didn’t show up in the jazzy babies was doing jazz hands. Absolutely zero. The only subjects measured doing jazz hands were extremely unjazzy dad’s making a joke about our study during the interview process.

Future endeavors for our project include looking at epigenetic changes present in those with jazzy exposure later in life and determining which environmental factors are most associated with upregulation of the proteins in the rhythmic thorax gland. Specifically, we plan to investigate the role of proximity to jazz clubs, phases of the moon, and number of tritone substitutions encountered per week.

7. Conclusion

There is hope in the resurgence of jazz. With a stronger, more rigorous understanding of what makes a baby jazzy, we can decrease the dangerous risks of babies being born in a flat time signature. By upregulating and selecting for highly correlated jazz jenes, we can guarantee babies will not go through life not knowing the pleasure of a smooth jazz piano solo or won’t be lying when they tell their friends that they enjoy Miles’ experimental stuff. This isn’t to say that we can’t love and take care of non-jazzy babies, they need our help more than any, but with the new advances in jenetics and a better understanding of the jazz-jenome, few babies will suffer from not being jazzy.

8. About the Author

Joseph “Baby Hands” McGraw is a jazz enthusiast and baby catcher currently listening to Ella Fitzgerald records in Motown. His extensive educational background is diverse and has included research in areas such as keyboard clackiness, efficiency of various log splitting techniques, the chicken-allergen connection, and maximization of length of signout. He is the recipient of the National Amateur Lunar Visualization Society’s 2022 Photo of the Year for his exceptional photo series featuring the most detailed photo of the Sea of Tranquility this decade. In his free time, he loves performing in triathlons: running the list, cycling blood pressures, and swimming in a sea of unnecessary consults.

References

[1] Fatz “The Boots” Shorterly 2012 *The Brubeck Scale: An Adaptable Metric on Jazziness* :: *JenoJazz Studies Quarterly*

[2] Whisker Whammy Jenkins 2016 *Non Instrumental Music Alternatives to Jazz and Why You’ll Always be Jivin Back* :: *Journal of Jenetic Grooves*

[3] Blinky “Fingers” Malone 2015 *Cause for Alarm Decline in Jazz Population Among the American Population* :: *Annals of Jazzy Jenomics*

[4] Authur Boomer Johnson 2014 *The Kids these Days Don’t Listen to Good Music Anymore* :: *Journal of Things that Should Stay Facebook Posts*

[5] Twinkles “Trombone” Taylor 2014 *Authur Boomer Johnson Sucks and is Out of Touch, The Kids LOVE Jazz* :: *Journal of Improvisational Beats*
[6] Zippy Zoot Sanders 2021 *Sustainable Jazz Population for Regenerative Groovetastic Cultural Environments* :: *Journal of Chromojazz Explorations*
[7] Tootsie *Horns* McGee 2008 A Practical Approach to Cloning Louis Armstrong :: *Syncopation and Sequencing Studies LLC*
[8] Boom-Boom Bass Jackson 2023 *Where are the Louis: A Limited Docuseries of the Louis Armstrong Cloning Disaster* :: *Netflix*
[9] Scooter “Here Comes Trouble” McDoodle 2022 *Mapping of the Jazzy Jenome* :: *JazzAllele Insights*
[10] Tad “The Sexy Sax Man” Richards 2018 *Live your Best Life: Health Benefits of Jazz* :: *Rhythmic Jenomics Review*
[11] Dan Smith 2016 *The Dangerous Negative Effects of Jazz: Ahrythmias, Sex, Alcohol, and More!* :: *Annals of the Abstinence Mindset*
[12] John Midnight 2019 *Positive Heart Effects of a Jazzy Rhythmic Thorax* :: *Cool Cats Medical Research*
[13] Mae “Honey Lips” Turner 2021 *Test before you Invest Parental Predictors of a Jazz Men and Women* :: *Jazz Pulse Health Review*
[14] Stanley “Swing King” Rivers 2021 *Ear Bathing Second Hand Jazz Exposure Benefits and Risks* :: *Blues and Medical Sciences Quarterly*
[15] Lionel “The Licks” Groover 2017 *The Herbie Test: A Definitive Test for Jazztection in Adults over 23* :: *Swingtime Health Journal*
[16] Jumpy Wobbles-Hat O’Reilly 2023 *Jazz Jene Detection Database* :: *Journal of HarmoJenetics Jazzology*