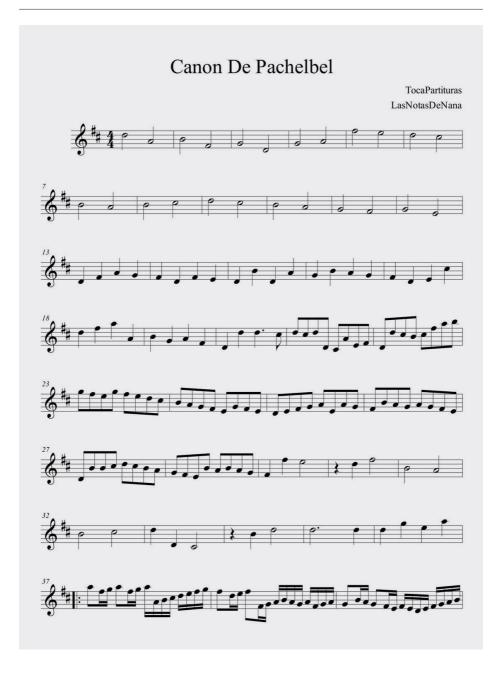
# Four chords that made a million

### Presentació

I have always been very interested in music, and since the age of three I have wanted to be a singer-songwriter. So, naturally, I wanted the main focus of my research project to be music. Writing a song was the ideal practical part of my project, since it's what I would someday like to do as a career, but I wasn't sure how to focus the theoretical part. Originally, I had thought to talk about what makes a pop song popular, but over time I realized that I would find more information if I focused it from a historic point of view, and my project would be more objective. Finally, I decided to concentrate on the harmonic base of western music, with emphasis on the Baroque period after I started my research, because I found a lot of common points that I wanted to explore. Although it may seem that today's pop music has little to do with the great classical music that came hundreds of years before it, these genres have more in common than you might have guessed. The objective of my project is to show that pop music can be understood as a modern version of early classical music, by following the evolution from one to the other, and highlighting the similarities between the two.



## Metodologia

During my project, I will explain a brief history of classical music, taking as a beginning point, although with a brief reference to what came before it, the Baroque period, when harmonic structures and functions, which became the basis of most modern music, were first established. I will then follow the progression of western music that leads all the way to modern pop music. To obtain the necessary information for this part, I used different sources. To establish a clear timeline and structure to follow, I consulted my history of music class notes that I had from a class that I took in 2016 at the conservatory of music, Isaac Albeniz of Girona. Once I was clear on what periods I wanted to study, I began researching information about each period. It was very important to make sure that the information I put in my project was accurate, so I used many different sources such as documentaries, online music history and theory classes (name of guy) and diverse written sources in different languages. Once I have completed the historical part of my project, I will present the composition of my original song. Next, I will harmonically analyze dozens of the most popular pop songs (selected from the billboard hot 100 list) from the last two years, and then compare them to one of the most popular and influential songs of the Baroque era, Pachelbel's canon, demonstrating how little the base of the music has changed through the years. Finally, I will analyze an original composition of my own, comparing it to both modern pop music and the Canon (Baroque music), demonstrating that a pop song can be written following basic Baroque rules and chord progressions.

# Cos del treball

Decidí hacer mi trabajo de investigación sobre la música, ya que me gustaría ser cantante y compositora, y toco el piano desde los cinco años. Tenía muy claro que como parte práctica quería componer una canción, pero no sabía cómo abordar la parte teórica. Cuando empecé a escribir mi canción me di cuenta de que me hacía pensar en muchas otras piezas que había escuchado en el pasado, tanto de estilo pop como de música clásica, que había estudiado o escuchado en alguna clase de música. Una de las canciones en que me hizo pensar más fue el *Canon de Pachelbel.* Me pareció muy intrigante que la canción que yo había escrito, que era claramente de estilo pop, se asemejara tanto a la música que había existido cientos de años antes, así que decidí investigarlo. Durante este trabajo estudié la evolución de la música occidental desde la época barroca, donde comenzó a establecerse la armonía, hasta la música pop contemporánea. He estudiado qué cambios hubo y qué elementos han permanecido iguales. Quería demostrar que el pop era una versión moderna de la música barroca, y para ello no solo busqué cómo la música había llegado a la actualidad, resaltando qué aspectos de la música clásica antigua habían permane-

cido, sino que también decidí hacer un estudio analítico para ver si mis teorías realmente podrían ser comprobadas. Analicé armónicamente unas 40 canciones pop de los últimos dos años, y las comparé con una de las canciones más populares y representativas del Barroco, el *Canon de Pachelbel*. Entonces hice el mismo proceso de comparación con mi propia composición. Los resultados que obtuve de este estudio fueron bastante satisfactorios, ya que demostraron que muchas de las estructuras y las cadenas armónicas que se utilizaron en el Barroco se mantienen actualmente. Los porcentajes de canciones que usaban ciertos patrones no eran exageradamente altos, máximo un 44 %, pero todas las secuencias de pares de acordes se utilizaron en al menos el 5 % de las canciones que analicé. Así que podríamos decir que de hecho el pop todavía está utilizando los mismos enlaces armónicos que se utilizaron centenares de años antes.

### Conclusions

Inspired by the song I wrote as the practical part of my research paper, I made the objective of my project to answer the question of whether or not pop music is truly innovative. I think that I have obtained a pretty clear answer. To arrive to a solid conclusion, I followed two different ways of obtaining my information. The first was historic and fact-based, and the second was an analytical study. In the historical part of my project, I followed the evolution from Baroque to Pop, highlighting the similarities between each genre and keeping in mind the differences. This part of the project allowed me to observe what had been maintained in music since Baroque times, what had been altered and what had eventually returned to its original, simpler form. Whilst I slowly delved into my project, my historic musical knowledge grew and developed, allowing me to create an informed hypothesis about how similar the now modern pop and the antique baroque music truly are. Once I had finished the historical part of my project, I decided to analyze and compare pop songs from the last two years to a clear example of Baroque music, Pachelbel's Canon, to try to numerically demonstrate the similarity I believed existed between pop and Baroque music. The results I obtained for that analysis helped confirm my theory that they were truly not that different. All of the songs analyzed used major or minor scales, that, though established long before, were perfected during the baroque periode. Although the percentages of songs that used certain chord progressions did not go over fifty percent, they got pretty close, peaking at 44%, and all two- chord sequences were used in at least 5% of the songs. Every single song that I analyzed used at least one of the eight two-chord progressions that appear in Pachelbel's Canon. This proved that, although not identical, pop music is very similar to Baroque music, and a lot of pop songs are written following simple Baroque rules. I believe that the results of my project point to a distinctive resemblance or parallelism between the two musical styles, that should be explored. The application of the knowledge obtained in my project, especially in an academic field, could turn out to be very useful to young musicians and their professors. I think that music professors should teach baroque harmony to those students who want to become pop song-writers, as it would give them an excellent base to start with. I also believe that classical music students who study baroque music should be made aware of the important connection that there is between the music that they study and the pop music that they tend to listen to. An interesting way of teaching children to analyze baroque chord structures could be by asking them to analyze current pop songs that they like or are at least familiar with, instead of always analyzing old classical songs that they've never heard. I personally think that this method could be much more entertaining and engaging for the children involved and, if done well, equally effective in teaching harmony and an understanding of western music in general.

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