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Consanguinity on the Canvas: Studying Inbreeding in the Habsburg Dynasty through Portraits

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During the height of their rule in Spain and Austria, the Habsburgs intermarried in order to preserve a strong, purely royal bloodline and to ensure that a Habsburg remained on the throne. For the Habsburg kings in Spain from 1516 to 1700, *limpieza de sangre*, literally “purity of blood,” was a central principle among Iberian peoples by the fifteenth century that focused initially on keeping Jewish and Moorish blood out of prominent Catholic families. This standard had been crucial since the *Reconquista* - the gradual expulsion of the Moors which lasted from the 1100s to the 1400s - and took on a new definition with the Reformation among Habsburgs. By intermarrying, their bloodline stayed pure and kept the family purely Habsburg, in addition to preserving power by keeping Habsburg lands in the mainline of the family. This inbreeding, however, resulted in an onslaught of physical and mental ailments and disorders for the Habsburgs because their gene pool was subject to very limited diversity. This also led to the end of the Spanish Habsburg Dynasty with Carlos II in 1700, as he was the product of several generations of inbreeding.

The physical effects were severe and not lost on his contemporaries. It is those artistic expressions that constitute the focus of this work. The first part of this paper analyzes the importance of intermarriage in many powerful dynasties, specifically among the Habsburgs, while the second part considers the effects of the inbreeding within the family as well as studies the outside perception of these. The final aspect of this paper addresses the artwork and portraits of the Habsburgs and, specifically, how official portraits and other works portrayed these deformities that resulted from the inbreeding. The portraits depicting these deformities allow for documentation of the true downfall of the Habsburg dynasty in Spain: inbreeding. If the Habsburgs had not interbred, they could have continued to reign. Carlos’s great genetic deformities were well documented and were depicted realistically by artists. Despite the complications brought forth by physical deformity, the features became synonymous with the power of the Habsburg name. The famous chin and long facial structure was practically interpreted as a physical reflection of their dynasty and a symbol of their temporal power and ardent piety which they proudly displayed in portraiture.

Inbreeding occurred for many generations but grew more prominent in the mid-sixteenth century with the marriage of



Figure 1. Family tree depicting consanguineous relations amongst seven generations. Kings are noted in caps. Alvarez, Ceballos, and Quinteiro, 3.

Maria of Austria and Maximilian II, who were first cousins (see Figure 1). As demonstrated in Figure 1, two marriages between uncle and niece, two marriages of second cousins, two more marriages among first cousins, and, finally, the marriage between Carlos II's parents, Philip IV and his niece Mariana of Austria followed this trend. Individually, these consanguineous marriages may not have caused the destruction of a branch of a family. However, the final marriage of uncle and niece resulted in a child that was the genetic equivalent of one born to brother and sister. Though Philip IV was the uncle of Mariana, they themselves had been products of interbreeding. Each of their parents had been second cousins, resulting in an already closely-related couple producing a further inbred child. Carlos II, born in 1661, was the final outcome of this dynasty and the epitome of the Habsburg inbreeding.

Intermarriages among the Spanish Habsburgs occurred because of the quest for pure blood while preserving dominance as a dynasty. Historically in Spain, *limpieza de sangre* was used to justify a purely Catholic bloodline, to ensure the families who reclaimed Iberian lands during the Reconquista had not been tainted with the blood of other religions. This was important to the Spanish because they believed that straying from the Catholic Church, or "heterodoxy, or an inclination toward it, came with blood" (Poole 1999). Those with unknown descent could have possibly been tainted with Jewish or Moorish blood. Because of the power and the unmatched piety they held, Habsburg blood had been associated with a corresponding power and honor. The concept of *limpieza de sangre* exemplifies the importance of preventing the mixing of, in this case, families with different statuses and maintaining the honor of the Habsburgs (Poole). The piety in the dynasty's blood, which also tied into their honor, reflected both the status and the

level of devoutness. Honor was a very important virtue to all noble families, so the Habsburgs used all aspects of it to their benefit and *limpieza de sangre* worked to evidence their honor and preserve it for future generations.

In addition to protecting the honor within their blood, inbreeding tied to their devoutness as Catholics. The “inherited Habsburg piety” was another crucial reasoning behind the intermarriages, as this “exceptional devotion” carried by the Habsburgs and the divine protection it elicited was said to be passed down the bloodline (Coreth 2004). A dedicated tie to the Virgin Mary such as this suggested the worthiness of the Habsburgs to rule as Holy Roman Emperors and as Spanish monarchs to their subjects. The Habsburg veneration of Mary is greatly detailed throughout their dynasty with personal acts and public declarations. Mary protected the Habsburgs through intercession, and they could not chance tainting their tie. The Habsburgs’ devotion to Mary began with Rudolph of Habsburg in the thirteenth century and provided a great foundation for their rule that needed to be maintained (Coreth). Endogamy ensured a stronger connection to their devout past and seemed like the most logical choice to maintain such a pious and powerful family. Intermarriage paled in comparison to the threat of tarnishing the bloodline, the dilution of spiritual connections, or the loss of their realm.

For Carlos II personally, it was a large price to pay as it was probably his inbred genes that resulted in his inability to reproduce. Geneticists often calculate a value known as the inbreeding coefficient to estimate the levels of relatedness among genes. The value, expressed as a percentage, illustrates the probability of a child receiving identical alleles from each parent (Bhattacharjee 2009). An inbreeding coefficient that approaches a value of one indicates offspring who are closely related to their parents. In turn, the subject’s overall health and fitness declines because any recessive allele that would normally remain unexpressed has a much higher probability of being matched with the same recessive allele. Genetic variation accounts for diversity of course, but also for basic health. If a person has identical copies of a gene, they may be more sensitive to various viruses and genetic defects.

To calculate the most realistic coefficient for the Habsburg dynasty, scientists considered sixteen ancestral generations prior to Carlos II and evaluated the value based on over three-thousand individuals (Alvarez et al. 2009). The importance of this inclusion is that data from remote ancestors influences the coefficient substantially. This means that although inbreeding was strong throughout the previous few generations, this was not the only cause of the consequences (Alvarez et al.). Carlos II’s inbreeding coefficient was 0.254 (relatively high), proving that his parents, though uncle and niece, were almost as genetically related as siblings. This coefficient was the highest in the line of Habsburg rulers, and thus Carlos II was the epitome of their inbreeding. The high inbreeding coefficients among Habsburgs is probably to be blamed for the high rates of miscarriages and early deaths, or “inbreeding depression” throughout the family. More specifically, Carlos II’s inability to produce an heir with either of his wives (Marie Louise of Orleans and Maria Anna of Neuburg, both of whom were unrelated to the Habsburgs) was likely a result of this abnormally high coefficient. Marie Louise was aware early on that she would likely never bear Carlos’s heir, and the Spanish people began to blame her for the lack of a prince (Tibball 2017).

In addition to difficulties with reproduction, many other problems are linked to the inbreeding in the family. The most common physical deformity passed throughout the dynasty was later dubbed the Habsburg Jaw or Austrian Lip, medically known as inferior prognathism. The most obvious sign of this was a peculiarly shaped jaw, as was evident in Carlos I who - as Charles V - served as the Holy Roman Emperor. Though the jaw is not specifically a defect

caused by inbreeding, that phenotype was expressed more commonly among Habsburgs than would be in the case of a non-consanguineous family. Geneticists believe that the high frequency suggests that it was passed through the family so steadily because of the inbreeding (The British Medical Journal 1928). During the 1510s, the young monarch's facial deformity received much attention and many perceived his open mouth to mean he was not alert. (Hodge 1977). Much later, Carlos II was also seen differently because of his onslaught of deformities. After close observation, traces of the Habsburg Jaw can be found in much of the descendants of the dynasty, including Philip II (r. 1556-98) and Ferdinand II (r. 1475-1504), to name a few.

The recurrence of features like the Habsburg Jaw and disabilities, though now known to be the result of the family's inbreeding, ran throughout the family and was spread rampantly through generations. He was so mentally incapacitated that his family gave up on educating him and focused more on keeping him alive. Carlos II's physical deformities were documented well in contemporary writings and depictions of him included Carlos being "short, weak, and quite lean and thin," expressing "abulic personality," and even suffering from "sporadic hematuria and intestinal problems." In addition to this, he had a very prominent form of the Habsburg Jaw that hindered his speech and made eating difficult. Though it is not certain to say that all of these deformities were caused by inbreeding, it is very likely that consanguinity was the culprit. Carlos died prematurely at only 39 when his rare ailments got the better of him. Ironically, the inbreeding that was meant to protect the dynasty ended up being its downfall.



Figure 2. Bernaert van Orley, *Charles V*, 1519. Budapest, Museum of Fine Arts.

In considering the deformities associated with inbreeding, the portrayal in portraiture is the most telling aspect of the dynasty. The Habsburg dynasty was so well documented in portraits that it is very easy to follow the progression of deformities through the generations. In addition to analyzing the portraits, it is important to note how different artists documented the deformities. In portraits of Carlos I (Figure 2) and Carlos II of Spain (Figure 3), the Habsburg

Jaw is especially prominent. Artists generally did not attempt to hide this perceived monstrosity, but rather allowed it to be the dominating feature of the family. Some artists, like the court painter for Felipe IV (r. 1621-1665), were even instructed to depict it exactly as it was. Yet, the pieces by court painter Sanchez Coellos of Don Carlos did the opposite, as in them he minimized the physical deformities (Figure 4). In this portrait of Felipe II's son, the normally prominent



Figure 3. Juan Carreno de



Figure 5. Luca Giordano, Equestrian Portrait of Carlos II of Spain, 1680. Madrid, Prado.



Figure 4. Sanchez Coello. Don Carlos, 1563. Vienna, Kunsthistorisches.

Habsburg Jaw is minimized and barely noticeable. Carlos II's depictions were the reverse. In many of his portraits, the artist portrayed clearly his protruding chin and gaping mouth. However, in most equestrian portraits of Carlos II where he is to be portrayed as a powerful king and military leader, his deformities are not very conspicuous if even included at all (Figure 5).

This makes sense, as a physical deformity is often not associated with the power and strength necessary for military leadership. Yet, the Habsburg chin was seen as more of a prideful identifier than a disfigurement in royal images.

Throughout the family portraits, it is easy to follow the chin through the realistic depictions of some

artists. Carlos I (Charles V of the Holy Roman Empire) was also dominantly portrayed with the protruding chin of his family. Bernaert van Orley's portrait of Charles V depicts the king with the extended chin (Figure 2). Though not as terrible as some other depictions - such as the sculpture by Joachim Deschler - the deformity is still very prominent (Figure 6).

The positioning of the king at an angle does not flatter the feature, but rather seems to dramatize it. In Deschler's sculpture, the features are portrayed to an extreme degree, but very realistically. The extended jaw, protruding lip, humped nose, and receding forehead characteristic of the Habsburgs are on display in this work. Charles V, being one of the most prominent Habsburgs with the feature, set a precedent for the rest of his family in how the defects would be illustrated in portraiture. Since this family with immense power also had

these rare, altered features, the jaw became more of a representation of that power through the realistic depictions while being juxtaposed with various symbols of power and supremacy. The



Figure 6. Joachim Deschler, Sculpture of Charles V, 1517. Vienna, Kunsthistorisches.

jaw was essentially proof of the legendary ancestry and more of a badge of honor than a defect. Artistic Depictions of the Habsburg chin seem not to have been jabs at the deformity, but rather a documentation of a characteristic of the dynasty that was distinctly Habsburg. Diego Velazquez, a court painter for Felipe IV, famously painted the king's chin in a unflattering, but realistic way. This unflattering realism was very unconventional in typical period portraiture, but here shows something interesting. The more accurate depiction of the chin allowed for easy recognition of the famous monarchy. Art Historian John Brown, who studied the abnormal portraits of Felipe IV, argues that the Habsburg name was universally known as belonging to the ever-so-powerful monarchy and evidence of the jaw - the symbol of that might - would immediately connect the person to their family. Felipe IV even "insisted on scrupulous accuracy in representations of his person," as evidenced in Velazquez's first portrait of the king. Trying to make the monarch look more respectable, Velazquez

initially tried to diminish the jaw and provide a more appealing shape to the head. Felipe IV was unhappy about the liberties taken and demanded he revise the piece. In the finished portrait (at the Prado in Madrid), the prior attempts to embellish can almost be seen. In the end, Felipe's features, as art historian Brown notes, "are both more realistic and less attractive." Velazquez was coerced to go beyond convention in order to document the true appearance of the king.

The king's adavance for realistic depictions went beyond the single portrait; he commanded his court to collect all portraits of the royal family on public display and inspect them to ensure they truly were realistic depictions. The two court painters, Velazquez and Vincente Carducho, were often required to repaint the faces to make them more truthful. The ties from Felipe IV to his grandfather and great-grandfather, Felipe II and Carlos I, lay in the great portraits and the defining facial features of the dynasty. He demanded realism in the portraits because the power that the chin represented was one recognizable throughout the country, and it connected him with the most powerful monarchs of his family.

As previously mentioned, Prince Don Carlos was often portrayed without his extended chin or with a lesser form of it. He was often idealized in the works that portrayed him, despite it being documented that he was a weak and sickly prince; this could be because Felipe IV's campaign for realistic depiction came about a century later. This idealism is seen in the Coello's works (Figure 4). Don Carlos, like Carlos II, was mentally and physically disabled, though this is lost in the works of him. His portrait shows him standing prominently, ignoring the fact that he had a hunchback and walked with a pronounced limp. Don Carlos suffered much throughout his life due to his deformities, but leaving this out of the works allowed for him to be seen as a strong and rightful fit for the throne. It was not until later that Felipe IV championed for a realistic depiction which allowed for the characteristics that singled them out to also make them



more powerful; in Felipe II and Don Carlos's time the Spanish people already recognized this type of power.

With Felipe IV's portraits, especially those done by Velazquez, the realism he demanded



Figure 7. Diego Velazquez, King Philip IV of Spain, 1653. Vienna, Kunsthistorisches.

is very noticeable in the depiction of the chin (Figure 7). Felipe IV encouraged the realistic depiction as a means of propaganda to tie him to the prosperous dynasty of those who preceded him, elevating himself and reminding others of his family's immense power. The chin, held with grandeur in Velazquez's portrait, served as a badge of honor which Felipe IV showed proudly. In some works, the main indication of his heritage and rank was not a typical badge, but rather was most likely his enlarged and dramatic facial features. Felipe IV seemed to depend on this connection to his Habsburg ancestors, as there was a decline in Spanish power during his reign and the beloved golden age had passed. The Habsburg chin was also easily recognizable in the depiction by Paul Strudel in the five portrait busts he did of the Habsburgs. In the work of Leopold I (r. 1640-1705) specifically, the facial structures are recognizable as being from the notable dynasty (Figures 10a). In these busts, the realism is present yet again in the depiction of the extended chin. In Leopold's case, he used the tie to

the Habsburgs to promote his strength as Holy Roman Emperor (like Charles V). The ties between him - and the rest of the family depicted in this set of portrait busts - to the famed dynasty allowed their subjects to be reminded of their family's capabilities. Carlos II would be



portrayed similarly, mainly following in his father's footsteps.



Figure 8. Juan Carreno de Miranda, *Charles II, King of Spain*, 1690. Dusseldorf, Stadtmuseum.

The portraits of Carlos II are probably the most severe of the Habsburgs when they depict the famed characteristic. Analyzing the equestrian portrayals of Carlos II shows a different Carlos who had more power and was unrestricted by the mishaps of inbreeding (Figure 5). These are idealized in such a manner to promote the dynasty and were used as propaganda to show the strength of not only Carlos II, but also of the Habsburg military. He wears armor and carries a baton, exuding power. The image of the last Habsburg on horseback attempted to steer attention away from the king being bewitched and pointed to the strength he had to lead the realm. The equestrian portraits of the king seem to be some of the few to depict him in this idealized manner, as many depicted realistically the enlarged lip and extended chin. Portraits of powerful people on horseback were common subject matter for painters, and even more popular when the powerful men were monarchs (Brown).

In the works by Miranda, Carlos's protruding jaw is central to the image, but he is still portrayed in a powerful setting (Figures 3 and 8). In these two works, the king is realistically depicted with the dramatic features. In the latter work, Carlos II's features seem to

be even more pronounced, with his lower lip protruding so much his mouth looks even larger (Figure 8). Still, connections can be drawn from the features here to the features also depicted in the works of previous Habsburg monarchs. Because of the direct eye contact between Carlos II and the viewer, dominance is given to Carlos despite his lack thereof in real life. Even in this image, Carlos II seems to be frail and weak, but his Habsburg chin was there to connect him with the strength of many monarchs.



Figure 9. Luca Giordano, *Charles II in his Twenties*, Unknown.

the strength of many monarchs.

In the work by Giordano, Carlos II is again portrayed with an extended chin and the abnormally long face (Figure 9). His chin, in each of these portraits, dominates the composition of the works and catches the eye of the viewers. The realistic depiction allowed for the easy recognition of the Habsburg name and the authority it held.

The genetic defects from inbreeding came to define the Habsburgs not only as an odd familial quirk, but also as the symbol that embodied the spiritual and temporal powers of the family. However, their efforts to keep power in the family caused much of the it to suffer the side effects: problems with reproduction and mental incapacities along with the physical deformities. Carlos II lived with mental and physical incapacities that often

left them weak and unable to be educated. Though this was the case, it seems that the Habsburgs thought of the enlarged jaw and chin as more of an outgrowth to their power that served to connect them with the Habsburg name and their past. The Habsburg chin carried the name of the dynasty and came to be portrayed in portraiture as a badge of honor that seemed to remind that beauty (and power) come with pain. The Habsburgs used their chin to remind the people of their epic history and to connect them to their ancestral past.



Figures 10a and 10b. Paul Strudel, Five Portrait Busts of the Family of Emperor Leopold I, 1695. Vienna, Kunsthistorisches. Leopold I and Carlos II.

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