Famous Chords

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In this lecture we will look at chords that managed to achieve a kind of celebrity: they stand out from their companions by virtue of a name, or an association with some object or emotion. Some of them even became musical memes, that could be parodied or transferred to different contexts. Just as the celebrity of persons can arise from a complicated tangle of effort, patronage and luck, there is a similarly complicated story behind each celebrity chord.

The Neapolitan 6th

We begin with the so-called "Neapolitan 6th" chord. In the 18th century, if the fourth degree of the scale was in the bass, the most common chord to be built on this was a "chord of the 6th", which we have encountered in earlier lectures as a first inversion chord. The note that was a 6th higher than the bass note was usually a major 6th higher – this was the wider variety of 6th. But in minor keys, another option emerged: the note in question was placed a minor 6th above the bass, even though this departed from the notes available in minor scales. Specifically, the altered upper note was a flattened version of the second degree of the scale, so in the modern system that follows Rameau's theory, the chord is called ♭II ("flat two"). The departure from the scale gives the chord a special, plaintive character, and even though the chord itself is major, the flattened note enables it to heighten the melancholy of a minor key.

The chord was well established by the time it appeared in the famous slow movement of Mozart's Piano Concerto No. 23, although Mozart, of course, was still able to make it sound fresh. The melancholy opening theme could have been confined to eight bars, as is so often the case in pieces of the time, but instead, it overspills the boundary, and two of the resulting extra bars contain the Neapolitan 6th. The passage is moving regardless of whether a listener can identify the chord as "Neapolitan 6th" – it is commonly the case that the emotional impact of a passage of music does not depend on any musicianly inside knowledge. The chord occurs within the structure of the cadence that closes this opening section: it functions as the pre-dominant chord, and it is followed by the expected dominant and tonic chords (we looked in detail at such patterns in Lecture 3). Many listeners experienced in music of Mozart's era will already imagine the rest of the cadence as soon as they hear the Neapolitan 6th chord, again, whether or not they can offer any technical description of the events.

Moving on by two generations, we will look at the opening of Chopin's First Ballade. The title of the piece tells us that it is in a minor key, but the imposing improvisatory music of the opening seems to be in a major key. Perhaps, we think, the pianist has changed the order of play. A little later, though, it turns out the initial major chord is precisely the Neapolitan 6th, and the main key is hinted at in the melody, and then confirmed in the harmony, which cadences in the main key of G minor. Only then does the first memorable theme begin. The improvisatory opening is therefore a stretched-out cadence, with the Neapolitan 6th again acting as a pre-dominant chord. The opening is also an operatic gesture: the bard strums ruminatively on his harp before he begins the story. This reference to ancient times is given a new twist with Chopin's Neapolitan 6th. Still, this unprecedented move can only be noticed in retrospect, when we realise that the opening major chord is only a Neapolitan 6th in a minor key.

By why "Neapolitan"? Why not a "Roman 6th" or a "Parisian 6th"? Is the label merely arbitrary, or even downright misleading, as we often find with musical terms? - Not in this case, it seems. The earliest instance of the name was apparently in an 1812 treatise on composition by the Englishman, William Crotch. In London, as in other European cities, there was a great demand for Italian opera, and many of

these were by Neapolitan composers. Foremost among these was Alessandro Scarlatti (father of Domenico Scarlatti, famed for his innovative keyboard sonatas). Scarlatti was a towering figure in early 18th-century Italian opera, and his beautiful and carefully crafted operas were still well known to Crotch, even though they fell into oblivion afterwards, until recent revivals and recordings. Scarlatti, for our purposes, was indeed an inveterate user of the Neapolitan 6th. Even if he cannot be credited with the invention of this distinctive sonority, he was responsible for putting it on the musical map. The label “Neapolitan” is, then, a fitting tribute to the art of Scarlatti.

In Scarlatti’s oratorio *Cain, or the First Homicide* (1707), there is an aria in which Eve addresses Adam after the Fall: she laments their disobedience, and when she refers to the punishment – *pena* – we hear the Neapolitan chord. In another of Eve’s arias, the Neapolitan appears on the words *abbi pietá* (have pity). These contexts for our present chord are actually similar to the occasions for the diminished-7th chord, which was the subject of Lecture 4, and we often find the two chords close to each other. After Scarlatti, there were many other composers connected with Naples, such as Pergolesi, who also made a striking use of this chord (Naples was, for a time, the leading centre of music education in Europe, not only in performance, but in composition and improvisation).

Delving a little further back, we find an example given by Henry Purcell in 1694, when he was working on a new edition of the composition manual “An Introduction to the Skill of Music”. Alongside an example he wrote for the purpose, he gives the following description: "The flat sixth before a close… is a Favorite Note with the Italians, for they generally make use of it”. So although Purcell does not associate it with Naples specifically, he regards it as an Italian device. Purcell’s contemporary, the polymath Roger North, referred to it as a “querulous sort of cadence”, although from the details he gives, this description may have resulted merely from his reluctance to retune his harpsichord just to accommodate this chord (the note that can be considered equally as G# or Ab today, had to be tuned to one or the other to avoid a cacophonous mismatch).

Much later, in the 1880s, when the German music theorist Hugo Riemann gave the Neapolitan 6th an entry in his *Musical Lexicon*, he describes it in very particular terms as a chord of “resignation and renunciation”. Riemann finds "a large number of *striking phrases of great beauty* in Bach, Beethoven and others based on the introduction of the Neapolitan Sixth chord."

J.S. Bach does indeed provide many wonderful examples of the Neapolitan chord. One appears near the beginning of the Adagio from the Toccata, Adagio and Fugue in C major (for organ), and it then becomes one of the most important harmonic features in the movement (it appears five times altogether). Compared to Scarlatti’s elegant treatment of the chord in cadential progressions, Bach heightens the impact by placing two notes in close proximity that cannot belong to the same scale (the root of the Neapolitan chord, and the 3rd of the dominant chord, forming an interval of a diminished third). With Riemann’s description in mind, we could well hear “resignation and renunciation” here.

In Beethoven’s Sonata op. 31 No. 2 (known as the “Tempest”), the chord functions as a kind of stumbling block, repeatedly tripping up the headlong motion of the first movement. The stormy minor key is lent a more desperate and resigned quality by this use of the Neapolitan chord.

Probably one of the most resigned pieces ever written is Rachmaninoff’s op. 33 No. 7, one of his Etudes-Tableaux: the whole piece is built around a cadence (and given the key of G minor, it may be a response to Chopin’s First Ballade, which we looked at earlier).

It was Wagner, though, who managed to give the Neapolitan chord an epic, world-shaking significance. In *The Ring*, the supreme god Wotan finds his laws and his own purposes fundamentally at odds with each other. By the beginning of the final act of *Siegfried* (the third opera of four), he finally sees that he will lose his grip. Surely this cosmic undoing is beyond the means of music? – No, not for Wagner, and he creates an utterly wrenching harmonic progression that begins with by shifting from the tonic to the Neapolitan chord (followed by two more very colourful chords). The Neapolitan chord had long been accruing associations of a heavy heart and resignation (recall Eve and the Fall in Scarlatti), and now it establishes the inevitability of Wotan’s cataclysmic failure, which will bring about the destruction of his universe in the next opera, *Götterdämmerung*, *The Twilight of the Gods*.

The Spanish Style

Now let us look at another example of a Neapolitan 6th in different context, where it takes on a different meaning. Mikhail Glinka’s song *Bolero* (which he also arranged for piano solo) begins with a bold

alternation of the minor tonic with the Neapolitan 6th. The bolero is a Spanish dance, and the use of the Neapolitan here is not at all a matter of resignation or despair, let alone cosmic defeat, but simply a matter of local musical colour to tell the listener that the setting of the song's story is indeed Spain. Clearly, Glinka could not have used the Neapolitan chord here if it did not already evoke Spain for at least part of his audience. In terms of meanings, or associations, *this* use of the Neapolitan should be regarded as distinct from the use of the Neapolitan as discussed up to now: the notes are the same, but the meaning is different. The Spanish usage implies nothing of resignation or despair, or even a vague air of melancholy. Glinka's song illustrates this well. The first three verses are full of the passion of a man for his beloved. At the end of the third verse, we hear the words "But if you are unfaithful…". The next two verses describe the dire revenge the man will take on the girl and the other man, in such lurid terms that the effect is wryly comical. His rage dispels in the final verse, because, as he tells us, he knows that she will never be unfaithful to him. There is passion here, and rage, but not the merest hint of despair or melancholy.

There is a kind of minor scale with a flattened second degree, and this is the characteristic note of the Neapolitan chord. The modern name of the scale is the "Phrygian", but this only came about through a confused 16th-century account of the Ancient Greek scales. In Gregorian chant, it corresponds to Modes III and IV. This scale is notable for its absence from most European folk and popular song, with the exception of Spain. This exception might have come about under Moorish influence, although we cannot be certain, since the scale was already present in Church music (to complicate matters further, the Arabs also drew upon Ancient Greek music theory). In any case, we can now see that the Neapolitan chord is only a particular instance of harmony that can be derived from the Phrygian scale. In several of the dance-types (*palos*) of flamenco, the Phrygian scale predominates, but the Phrygian can also be heard in popular tunes, like the bullfighter's paso doble *España Cañí*, which became world famous when tourists began flocking to Spain in the 1960s.

Is there any connection between the Phrygian scale, as used in Spain, and the Neapolitan 6th chord? The southern third of present-day Italy was a distinct political unit from the late 1200s to the mid-1800s, and for much of this time, it was under Spanish rule. It went under various names, but we shall use one of these: the Kingdom of Naples. The longest period of continuous Spanish rule ran from the beginning of the 1500s through to the early 1700s, which is the crucial period for us, since it covers Alessandro Scarlatti and his Neapolitan predecessors (whose music brought the chord to Purcell's attention). Alessandro's son, Domenico, took up appointments in Seville and then Madrid; in his hundreds of harpsichord sonatas, he shows not only a mastery of the Italian-dominated international musical language of the time, but also a thorough assimilation of Spanish idioms, including devices from guitar-playing. For our purposes, he made frequent use of the Phrygian that went far beyond the Neapolitan chord (although he used the latter, of course).

Scarlatti's Hispanicisms remained within the ambit of Spanish composers during the following generations, but this music did not influence composers outside of Spain. Among major composers, it was left to the outsider Glinka to place the Neapolitan chord back into a Spanish context. In the end, after the composition of Bolero, he travelled to Spain, lived there for a time, and set the precedent for the development of the Spanish style outside the borders of Spain. His largest-scale works in the style were his two Spanish overtures.

Glinka was an important influence on Felipe Pedrell, giving him the confidence to make consistent use of the Spanish idiom, and he, in turn, was the teacher of Isaac Albéniz. By the time Albéniz comes achieved fame, the Spanish style had already been adopted (after Glinka) by Liszt in the 1850s, and later by Rimsky–Korsakov, Chabrier, Ravel, Debussy and others. The summit of Albéniz's work lies in the four books of highly demanding piano pieces he published under the name *Iberia*, which he wrote while living in Paris, as a part of the musical scene there, and in direct competition the great French pianist-composers Ravel and Debussy. In *Iberia*, he said, he had tried to combine the most concentrated Spanish style with the greatest virtuosity in the piano writing. He highlighted the Phrygian scale (and associated harmonies) together with flamenco rhythms, both of which he thought of as the legacy of the Moorish influence (this is disputed, but the point is that he emphasised the aspects of Spanish music that sounded least like the music elsewhere in Europe). *Almería*, for example, begins with an alternation between the major tonic and the Phrygian chord of the flattened degree II. No listener today could fail to hear the piece as Spanish.

Adding More Dissonance

The Neapolitan 6th, and Spanish/Phrygian harmonies in general, can be intensified further with the addition of extra notes. I would like to cite two memorable moments. The first comes from Beethoven's *Eroica*

Symphony, where, in the middle of the first movement, there is a climactic point that sounds like an agonised cry. The progression that leads to it is already marked by diminished 7th chords, and when the "agony" chord arrives, it lasts for four bars, Beethoven deliberately spacing and orchestrating the chord to heighten the dissonance. We feel that we have been wrenched out of the classical style altogether, but Beethoven manages to resolve his dissonant chord in a logical manner. The chord is a Neapolitan 6th, but with the addition of a suspended note – a note that belonged to the previous chord, but which is carried over into the new chord, where it does not belong (hence the dissonance). It behaves as a pre-dominant chord, although the dominant is also coloured by further dissonance of a kind that Beethoven had used before. Then comes the tonic, although it belongs to a key very distant from the main key of the movement. In retrospect, then, we can make harmonic sense of the cry of agony, but when we hear it for the first time, it sounds uniquely appalling (even when we know the piece well, we have trouble assimilating the chord to any progression at the moment when we hear it). Recalling the "Tempest" Sonata that we looked at earlier, we can see that again, Beethoven has made the Neapolitan 6th into a kind of obstacle that stops the flow of the music. We might have expected the name "Eroica chord" to have come into circulation, but this has not happened, although on hearing the phrase, musicians would know immediately what chord was intended.

In our second example, we will take the extraordinary penultimate chord of Ravel's *Bolero*. It sounds almost like a cluster of notes, a piercing cry, not of agony, but a violent ecstasy. But the score reveals that it can be construed as a kind of Neapolitan 6th again, with the extra note from the Eroica, and also the leading note from the dominant chord, giving us a two dissonant semitones B, C and C, Db. The context here, is of course Spain, with predecessors dating back not only to Glinka's *Bolero*, but even a century further back, to the harpsichord clusters of Scarlatti's Spanish stylings. Since Ravel has already packed so many notes into his expanded Neapolitan chord, a dominant would be pointless, and he moves straight to a brief tonic chord to finish the piece.

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The "*Tristan* Chord"

Leaving behind Spain and the Kingdom of Naples, we will now move to a chord that takes its name from a single famous piece, namely Wagner's opera *Tristan and Isolde* (1859; premiered 1865).

Why did this chord become so famous? Let us list the things that make it stand out:

1) It is the first chord in the opera, and a dissonance, which is already unusual, although not unprecedented; still, a large-scale work such as an opera is much more likely to begin on the tonic triad;
2) Unlike some dissonant chords, it is too ambiguous to suggest a particular key; we have seen this already in the diminished 7th chord; the Tristan chord is sometimes called "half-diminished" because there is one diminished interval, a diminished 5th, but not a diminished 7th;
3) It resolves onto a dominant 7th, although we could not have predicted this particular resolution; this dominant chord then fails to pass on to a tonic chord, and instead, we hear a repetition of the Tristan-chord-plus-dominant-7th at higher positions, each repetition vaguely implying another key, but leaving the listener all the more bewildered in trying to detect the main key;
4) The Tristan chord is presented in a very characteristic orchestration (with the acid tone of the oboe in the top voice); it remains hauntingly recognizable throughout the opera, and is used again many times;
5) The chord is associated with the particular feeling of unsatisfied desire; it is part of what we call a leitmotif, a set of musical features (not necessarily a melody) that recurs throughout the opera to remind us of its dramatic associations; unsatisfied desire underpins the entire opera, making the Tristan chord the core leitmotif.

These make the chord special in that particular piece, but its fame comes from the status of *Tristan und Isolde* as a watershed in music history. It is the primary source of the complex tonality and dense textures of late Romanticism. It was the beginning of the dissolution of tonality, which lead to the early modernist experimentation of composers like Scriabin and Schoenberg. Through these experiments, it became the grandfather of the atonality that became the norm in post-Second World War modernism. Lastly, the suggestion of tonality without resolution became a crucial element in film music. We have already touched upon this in the lecture on Musical Cadences, pointing out the striking absence of closure in *Tristan* – it takes around five hours before we hear a decisive resolution of *Tristan* chord to a clear tonic at the end of the opera. Audiences at the time were astonished by this musical stream of consciousness, which seemed to work like a drug. After the premiere, the conductor Hans von Bülow wrote to Felix Draeseke in excitement with the exaggerated response: "there is not a single perfect triad to be found, not a single one!" All the more ambitious composers felt forced to re-examine their own approaches to harmony, whether by imitating Wagner directly, or by developing their own means for achieving some of Wagner's ends.

The weight of all this baggage also turned the Tristan chord itself into a kind of meme that allowed composers to refer back to Tristan both seriously and humorously. Alban Berg wrote in a generally atonal style, but used elements of tonality at times; using the systematic atonal method known as serialism, he recreates the opening of Tristan in his Lyric Suite for string quartet, a piece secretly dedicated to his lover Hanna Fuchs-Robettin the wife of his friend (echoing Wagner's own affairs with married women). In the finale, quotation is meticulously reconstructed by serial methods, not only for the Tristan chord (that would have been too easy for Berg), but also the preceding melodic phrase and the following dominant 7th. Emerging from the pained and fragmentary music of the finale up to this point, the instability of *Tristan* becomes a moment of familiarity, a ghost from the past. Berg, who created some of his most beautiful music out of the most difficult technical puzzles worked into the passage with the quotation numerical ciphers for himself and his lover, together with monograms that spelt out their initials in note names (AB–HF in German musical nomenclature, or A-Bflat – B-F in the English system).

In Britten's comic opera *Albert Herring*, on the contrary, the Tristan chord is used to elicit laughter (from those in the know). It appears as the shy and innocent young Albert is crowned as a "May King" and given a glass of lemonade spiked with rum – a reference to Isolde's maid secretly replacing poison with a love

potion. The choir responds with three cheers, the third of which is the Tristan chord, and this lingers on strangely while Albert becomes unsteady under the effects of the rum. Later in the opera, the chord appears again, and this time, as one scholar argues, it implies that Albert is to find "forbidden love".

The most famous *Tristan* parody appears in Debussy's *Children's Corner* (which is decidedly *not* a set of pieces for children to play). In the calk-walk movement, referring to a kind of ragtime dance, a quotation from *Tristan* is delightfully sneaked in through the back door – this is the melodic phrase that immediately precedes the famous chord in the opera. A listener unaware of the source might find the phrase striking, but not out of keeping with the popular dance style, and it would certainly not awaken suspicions of some ulterior purpose. The collision of high and low art certainly provides some of the humour, but Debussy develops his joke further. The *Tristan* phrase does not actually lead to the Tristan chord, which had instead been traced out by the notes of the introductory passage at the beginning of the piece. This would have passed undetected if it was not for the Tristan phrase, which does not appear until the less frenetic middle section. So far, so amusing, but what of the ulterior purpose? Debussy, earlier in his musical career, had given illustrated lectures on Wagner, taking connoisseurs through the most important of the operas. The experience he had acquired through this work, combined with his composerly ingenuity, enabled him to assimilate his predecessor's music so deeply that he could happily recompose passages from Wagner that came to strike listeners as purely Debussian. In the process, he could easily avoid the mere surface Wagnerisms that satisfied some of his "Wagnerian" colleagues, preferring to pay the much higher compliment that comes from true understanding. But Debussy, as an artist, became very reluctant to acknowledge his influences, and would rather have his listeners imagine that he created his music out of whole cloth. In his writings as a prominent music critic of the day, he berated Wagner and the Wagnerians, which helped him cover his tracks as a composer. All this was very ably demonstrated by my Cambridge colleague Robin Holloway back in the 1970s.

The "Mystic Chord"

We now move on from the Tristan chord to another arresting chord that appears at the beginning of a piece – in this case, Scriabin's *Prometheus*, a kind of orchestral-tone-poem-cum-piano-concerto. This "Mystic" chord in the strings sounds at first more like the rumble of a factory in the middle distance than an identifiable chord that might belong to some harmonic progression. But the piano plays through the same notes in a more distinct manner, and we can clearly discern a six-note chord built from 4^{th}s rather than the usual 3^{rd}s. Many of Scriabin's novel chords reappeared decades later in modern-jazz harmony, and the Mystic chord would be notated by jazz musicians as $G\Delta^{\#5\#11}$; we needn't be detained by these details, but the main point is that Scriabin created chords that stand outside of progressions, whereas modern jazz often (but not always) puts them to work inside progressions. The Tristan chord was doubtless the inspiration: it is as if Scriabin is trying to go one better. But like modern jazz, *Tristan* also retained chord progressions, and it is only against the background assumption of chord progressions that the Tristan chord can express longing (for harmonic resolution first, and then for the consummation of love by extension in the context of the stage drama). But the Mystic chord in Prometheus has no recourse to chord progressions and so it cannot possibly work like a Tristan chord, since we no longer expect any particular chord to follow it. The Mystic chord simply exists for its own sake. This was not a mistake on Scriabin's part, but fits his avowed interest in the musical exploration of spirit, matter (in the abstract) and divine play. The name "Mystic chord" was first applied by an English music critic after Scriabin's death; in Russia, it is known as the "Prometheus chord", by analogy with the Tristan chord. *Prometheus* is not the only piece where the chord appears; it can be found, for example, in Scriabin's Piano Sonata No. 5 (in bars 264 and 268). There are other chords, similar, but not exact reproductions, that appear in the opening bars of other pieces by Scriabin, with much the same function, as in his Sonata No. 7. Here, such a chord appears as the Sonata's kernel, and it is followed by a second chord that is analogous to a harmonic resolution in tonality (but only analogous, since it is also a dissonant formation, whereas dissonances in tonal music resolve to consonances). The "mystic" type chord and its "resolution" then reappear at another pitch, in the manner of the *Tristan* Prelude. The mystic-type chord recurs frequently throughout the Sonata, again as in *Tristan*. Having established his world of chords without harmonic functions, Scriabin cannot return to normal functional harmony without shattering this world.

Stravinsky's chords: "Petrushka" and "Augurs"

Stravinsky's famous chord from the ballet *Petrushka* also consists of six notes, and it happens to be only one note away from Scriabin's mystic chord. As with Scriabin's chord, it also has a modern-jazz interpretation ($F\#7^{b9\#11}$), and again, this is irrelevant to Stravinsky's version, which does not function inside

chord progressions. Viewed in a non-jazz manner as two chords rather than one, the F# and C triads have roots a tritone apart. Stravinsky made virtuoso arrangements of three scenes from *Petrushka*, and it is the second of these that contains the Petrushka chord. This reveals Stravinsky's very mundane and therefore un-Scriabinesque source for the chord: it consists of a major triad (F#) on the black notes of the piano, played simultaneously with a major triad (C, sometimes alternating with G) on the white notes. Stravinsky composed at the piano, and several startling orchestral passages in his music can be traced back to quite obvious origins in his experimentation at the piano (as we shall see with the next chord too). While Stravinsky had no time for Scriabin's mystical inspriations, he was certainly interested in music theory, and he would have been well aware that the Petrushka chord presented six out of the eight notes of the octatonic scale (discussed in Lecture 4), which was first used systematically by Stravinsky's teacher, Rimsky-Korsakov (as it happens, Scriabin also used the scale). It is only fair to note that Ravel had actually invented the Petrushka chord a decade before Stravinsky in his astonishing breakthrough piece, *Jeux d'eau*, for solo piano. He even combines the same black-notes F#-major triad with the same white-notes C-major triad, which suggests that Stravinsky had the Ravel passage at the back of his mind. In Ravel, the sonority functions as a kind of pre-dominant chord, unlike Stravinsky's version. Another dissimilarity arises from the scoring, which in Ravel is light, in a high register, and very rapid, which sounds mercurial rather than grotesque and (deliberately) clumsy, as Stravinsky's does, in the service of his characterisation of the puppet character, Petrushka.

There is another chord associated with Stravinsky, which he surely has every right to claim as his own. This is from the *Rite of Spring*, in the ritualistic dance of the Augurs of Spring, the first scene on stage, immediately after the orchestral introduction. The chord itself is a seven-note concoction that can again be traced back to its piano origins as a left-hand E-major triad below a right-hand Eb7 chord. This time, not only does the chord lie outside any progression, but not even modern jazz theory can assimilate it to any harmonic function. But the collections of pitches that make up the chord are of much less importance than the use Stravinsky makes of the chord: he repeats it 412 times in the course of a movement that lasts less than a minute and a half, and even the short interludes with a lighter texture are based on the same chord(s). Stravinsky also places strong accents on some of the repeated chords in a way that is very hard for the listener to predict. We could say that *Tristan* was both the ultimate refinement of tonal harmony and also the beginning of its decadence. The Augurs of Spring simply turns its back on tonal harmony, as if centuries of the development of Western music (which we have witnessed in this course of lectures) can simply be wiped out, in favour of a primitivism that merely hammers away, oblivious to any possibility of civilisation. But this is not the whole story, since Stravinsky himself was a master of post-Tristan harmony, and Primitivism was only a passing trend that spanned several of the arts within the broader sweep of early modernism.

Stravinsky's marvellous provocation in The Augurs also took on the status of a meme and I will again provide two examples. The first is the 1956 piano work by Karlheinz Stockhausen, simply labelled Klavierstück ix, which opens with 140 iterations of the same chord, which is the same number as in the longest uninterrupted passage of Augurs. Stockhausen's dissonant chords only contain four notes, and they dwindle from fortissimo to pianississimo. This allows Stockhausen to regain some of Stravinsky's shock value, which would have been impossible if he had merely imitated Stravsinky. As soon as the 140 chords have reached their quietest and we expect something new, back come the same chord, crashing away again at fortissimo. Once more, it fades away to pianissimo. Stockhausen is actually working downwards through the sequence of Fibonacci numbers.

In 1969, the Argentinian composer Mauricio Kagel created the film *Ludwig van*, intended as his own whimsical contribution to the international celebrations the following year to mark the 200th anniversary of Beethoven's birth. The musical performances in the film, with theatrical elements, are absurdist ruminations over well-known snippets from Beethoven, and also, more obliquely, a reflection on the lingering shadow that Beethoven casts over the subsequent history of music. Towards the end of the film, a pianist who looks as if she has just emerged from the grave, appears on stage and takes her seat at a grand piano. She seems to be embarking on a performance of Beethoven's famous Waldstein Sonata, which opens with a series of repeated C-major triads. But the tempo is strangely slow, and a wind band arrangement of the music is superimposed, a little out of tune and out of synch. The third time the pianist comes to the repeated chords, we discover why a slower tempo was chosen. The chords are now accented in an unpredictable manner, and we come to realise that Kagel chose the tempo so that he could transform Beethoven's Waldstein chords into The Augurs of Spring. The music struggles in vain to progress beyond the C-major chord, and the pitches of the chord are gradually overwhelmed by the thud of the keys, which

in turn coalesce with the sound of a beating heart – one of several features of the film that reflect on the terrible plight of Beethoven's deafness.

Kagel's film was not intended as a mockery of Beethoven – far from it: its target was the culture that had grown up around Beethoven, appropriating him for gain (or for worse purposes), turning him into a museum feature or trying to tame him in other ways. We cannot address these very broad issues at the close of the lecture, but we can at least draw on the Beethoven/Stravinsky episode as an example of how a long musical tradition can always draw upon such references, quotations and, indeed, memes. Composers imitate, develop and parody each other's ideas, and in the process, they make the language of music more intelligible to us. Music lies at the abstract extreme among the arts, beyond even architecture, but it is my hope that these lectures show how it is not just an outlier to the broader culture, and how such apparently abstract details as chords can convey emotion, images and wit, and create a rich network of cultural connections, both within music and between music and other arts, or between music and the world outside the arts.

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References and Further Reading

Emmett Lewis, *The Neapolitan Sixth Chord: Its Origin and Development through J.S. Bach* (Master's thesis, Eastman, 1939).

Maria Goeth, "Phrasemes, parodies and the art of timing." *Developments in Linguistic Humour Theory* 1 (2013): 235.Robert Lang, "Entstehung und Tradition des Begriffs „Neapolitan sixth", *Die Musikforschung* , Juli–September 1999, 52. Jahrg., H. 3 (Juli–September 1999), pp. 306-317.

Mark DeVoto, 'The Strategic Half-diminished Seventh Chord and The Emblematic Tristan Chord: A Survey from Beethoven to Berg', *International Journal of Musicology*, 1995, Vol. 4, A Birthday Offering for George Perle (1995), pp. 139-153

Henry G. Mishkin, "The Solo Violin Sonata of the Bologna School", *The Musical Quarterly*, Jan., 1943, Vol. 29, No. 1 (Jan., 1943), pp. 92-112

Richard Taruskin, 'Chez Pétrouchka: Harmony and Tonality "chez" Stravinsky*", 19th-Century Music,* Vol. 10, No. 3, Special Issue: Resolutions I (Spring, 1987), pp. 265-286

Clifford Hindley, 'Not the Marrying Kind: Britten's "Albert Herring"», *Cambridge Opera Journal*, Jul., 1994, Vol. 6, No. 2 (Jul., 1994), pp. 159-174.

Donald Street, "The Modes of Limited Transposition", *The Musical Times*, Oct., 1976, Vol. 117, No. 1604 (Oct., 1976), pp. 819-823