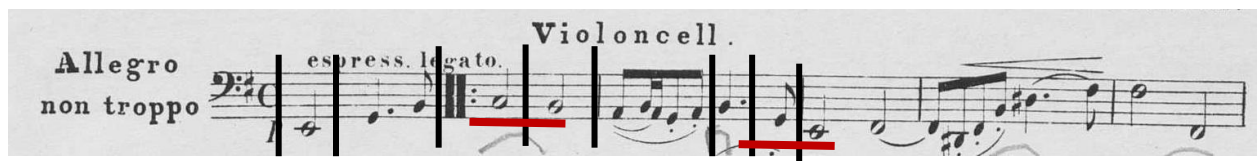
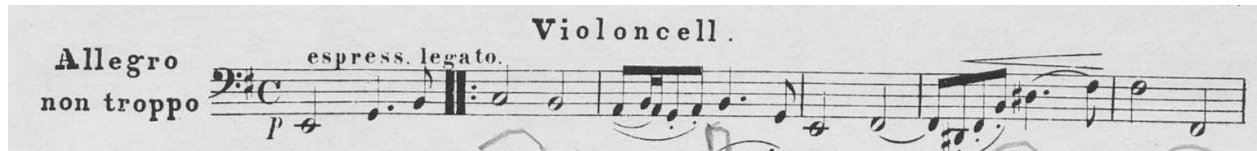


An Analysis from the First Movement of Brahms' Sonata No. 1 in E minor, Opus 38 for Cello and Piano

Score from IMSLP –www.imslp.org

Danielle Watson

This analysis will use a model to derive the harmonic progression from the melody line, which will then be checked against the piano harmony

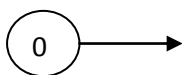


This is my informal analysis, using intuition. The black lines mark chord changes, and the red lines mark cadences. The first cadence is a plagal, half or imperfect cadence, and the second is a perfect cadence.

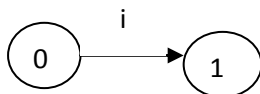
This piece is in the key of E minor. This means the chords are: i(EGB), ii^o(F#AC), III(GBD), iv(ACE), V(BD#F#), V⁷(BD#F#A) (treated similarly), VI(CEG), vii^o(D#F#A)

I will be presenting various parts of the base model for harmonic progressions as the analysis progresses

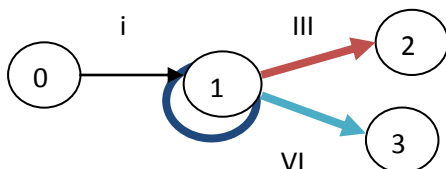
The beginning state is 0



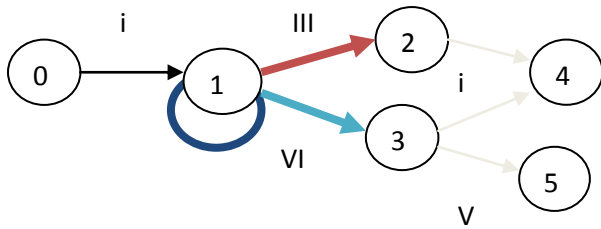
The first note is an E. According to the available chords, it could either be i, iv, or VI. Since the base model specifies that the opening chord of a piece must be i, this is the only choice.



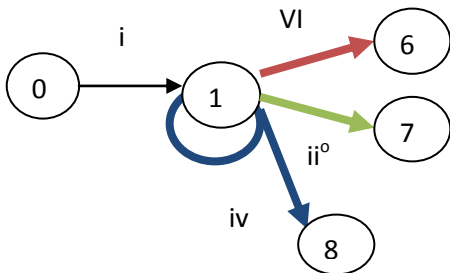
The next note is a G. It could be a continuation of i, in which case it does not move to a new state, III, or VI. All three choices are valid. The blue represents the stronger choice.



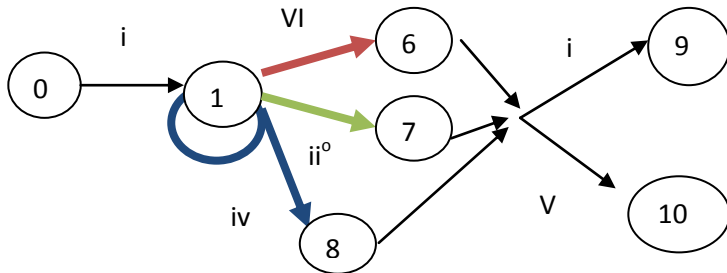
The next note is B. Because of the length of the note as compared to the surrounding notes, it is possible that this is a non-chord tone. If it is a chord tone, it could be *i*, III, V, V^7 . According to the base model, neither III or VI can move to III. VI can move to either *i* or a dominant(V) chord, but III can only move to *i*.



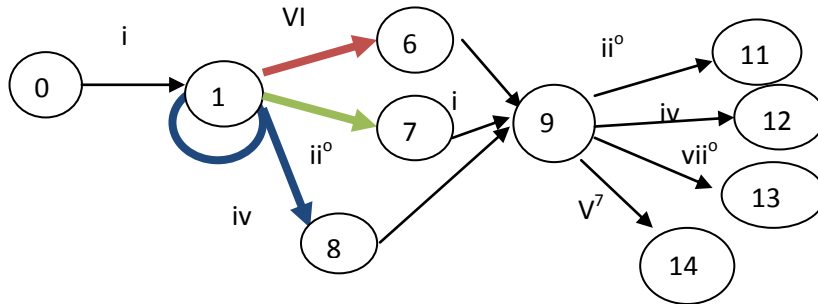
The next note is C. This could be either ii° , *iv*, or VI. Since *i* cannot move to any of these without beginning a new phrase in either case, both states 4 and 5 are rendered invalid and the B is confirmed to be a non-chord tone. Being as this is true, I must return a step to look at the possible moves from 2 and 3. None of the possible moves are valid from this state, or at least highly unlikely. Therefore, the second note must have been a continuation of the *i* chord. Any of the three chords are valid from 1.



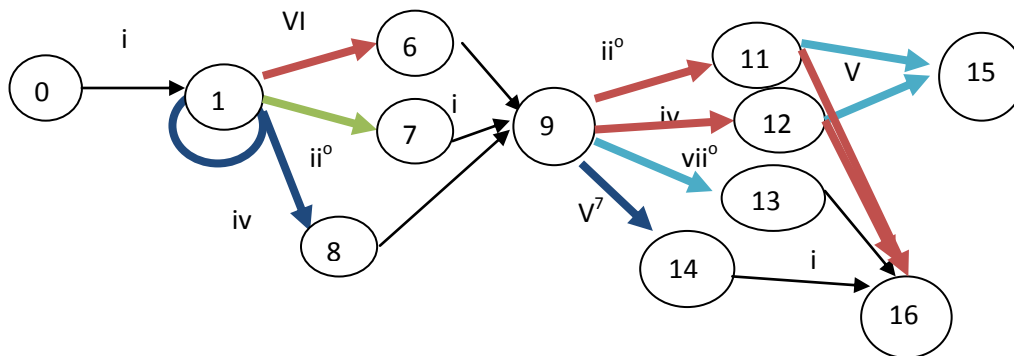
The next note is B. It could be either *i*, III or V. The base model does not allow a move of III from any of the possible branches. The use of either *i* or V is possible at this point, depending on the next note. All three possibilities must therefore move to V or *i*. In either case, this is a cadence.



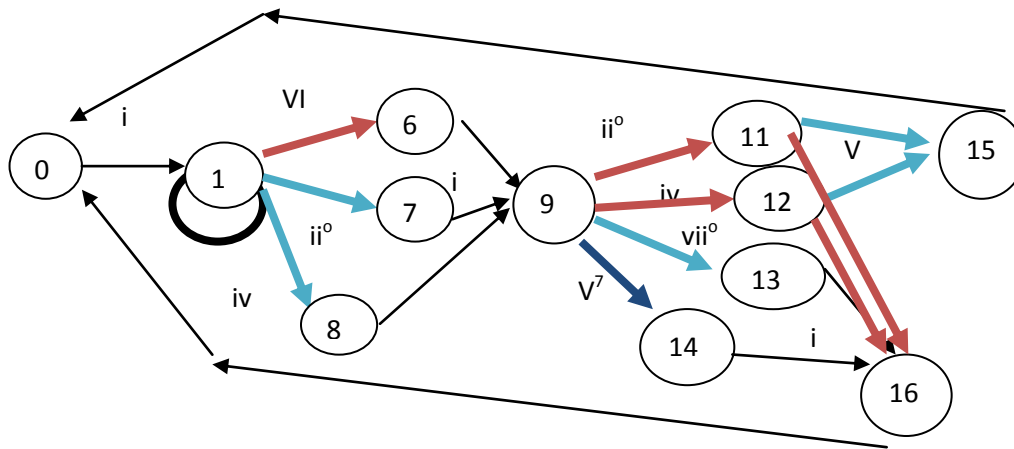
The next note is A. It could be either ii° , iv , V^7 , or vii° . 10 cannot move to any of these, therefore all branches move to 9. From 9, all choices are valid.



The next four notes are clearly an ornamentation, and therefore non-chord tones. The following note is a B. At this point the phrase should be finishing, since the first cadence already occurred. This means that the next chord has to be either a V or a i.



The next note is also an ornament, which is followed by an E. In the case of 16, this means it is part of the same chord. In the case of 15, it follows directly. In either case, it is a return to state 0.



The multiple choices do not really make a significant difference in how this is performed, since the available chords are harmonically equivalent, with the exception of the possible moves from 9. However, it is hard to tell whether 15 or 16 is the correct choice from the information given in one line, using the model alone. However, on closer inspection, the last three notes of the phrase are BGE, which is the inversion of the i chord, copying the first measure, so the only choice is 16. This means the chord progression is $i \text{ VI}/ii^\circ/iv \text{ i } ii^\circ/iv/vii^\circ/V^7 \text{ i}$

The chords in the piano part are: $i \text{ i } ii^7 \text{ i } ii^7 \text{ i } i$. Brahms is bending the rules a little here –technically this chord progression is legal, but it is very rare. Since ii chords and IV chords are equivalent, this means that both cadences are plagal and therefore not very strong, since the dissonance is not ‘properly’ resolved.

Compared to my intuitive analysis, the model was much more accurate. Compared to the chords in the piano part, the model was fairly accurate.