CHAPTER 8 - EXPERIMENTS TO DEVELOP THE IMPROVISATIONAL EAR

Part 1: The Philosophy behind these experiments

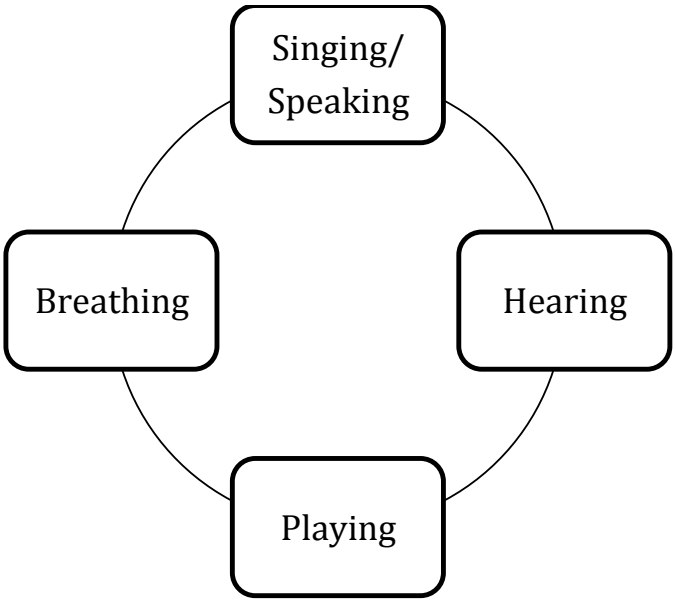


Figure 8-1 The 'all-round' communicative improviser

Moran discusses the compelling role that the 'ear' plays in Improvisation. As an improviser he says, to 'change a path the music is heading you have to be able to listen and adjust to what the other musicians are doing on the bandstand'[1]. Coker[2] mentions the historical demands on performers from different generations, (1925,

[1] Moran, 2018
[2] Coker, 1964

1943, 1963) and states 'no self respecting jazz musician was reading music'. This states that musicians had to rely solely on their ears.

The following experiments are to train the voice (identity) of the improviser. They are important as they explore the harmonic possibilities of every possible interval within the octave. These exercises enable the instrumentalist to connect more with their own voice[1] whilst building intervallic vocabulary.

Mindful breathing practices must take place when communicating effectively with an audience. One downfall or advantage to playing the piano is that you can make sounds without having to pause to take an inhalation. It could be seen as a dis-advantage because as most saxophone players pause for breath in their phrases, piano players can play continuously potentially losing connection with themselves and the audience[2]. Vocal music is more popular than instrumental music[3] and this may be partly due to the emotions that breathing limitations provide in a vocal performance**.**

A musical instrument has to be acquired and the art of playing it, learnt'[4]. The following experiments are designed to expand on the findings obtained in the previous chapters.

Part 2: The Experiments

Table 6 Key

	Key
Right Hand	RH
Left Hand	LH

[1] The voice (gatra vina) is a free gift to us from 'God' and it is up to everyone to make the full use of it. The voice is intended not only for speaking but also for singing. Singing as well as speaking, is an art that is within the easy reach of everyone. http://ezcarnatic.tripod.com/p8.htm "Vocal VS Instrument"
[2] Playing with their fingers, not their heart
[3] 'Hearing someone's voice is good'(#3 Posted by martinX3X (4488 posts) https://www.gamespot.com/forums/offtopic-discussion-314159273/why-do-more-people-prefer-music-with-lyrics-over-i-28927463/
[4] Note: It is to be remembered that most vocal music contains instruments as accompaniment

i) Harmonic Experiment

The aim of this experiment is to build awareness of all intervallic 2-note combinations whilst being aware of the 'space' and of the breath.

A. Play any minor 2nd dyads[1] in both hands simultaneously in any register, dynamic level, and permutation every four beats while breathing in for four counts and out for four counts.
B. At the same tempo repeat this step but play major 2nds and keep expanding the intervals until the player reaches the major 7th.
C. Repeat in various tempos each day and notice the difference in harmonic development.
D. Practice the etude, eyes open or closed, and in any tempo. Make sure that the metronome is at a constant tempo. No intervallic dyad should be preferred for another. Doubling is allowed when the eyes are closed to allow for the 'space' but when the eyes are open try to avoid doubling for harmonic symmetry and balance.

ii) The Spoken Melodic Experiment

This experiment will be an inverse activity from transcribing speech to music. The aim is to find a 'voice' on the instrument and 'hear' what you play. Use any of the combinations in the columns from Figure 8-2.

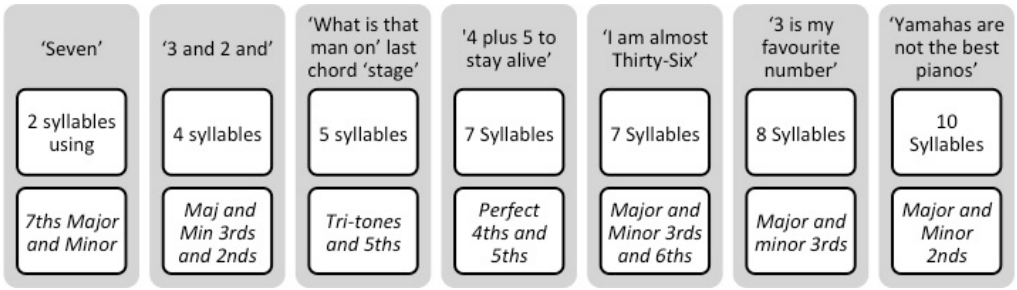


Figure 8-2 The spoken melodic experiment

A. In the same fashion as the previous etude slowly play in tempo hands separately and then together the following intervallic melodic permutations.

[1] Two notes played simultaneously

Min 2nd, Maj 2nd, and alternate between the two intervals. Most speech-like phrases use shorter melodic intervals than larger ones.

B. 'Speak' all pitches played using any combinations of words, make sure the words are repetitive and concise. For example, you could use the phrase "*I would like to eat dinner at 6 o' clock"* and keep repeating until you can clearly hear the intervallic relationship of a 2nd. Here are some spoken phrases that you can use below[1] that can be interchanged to use all possible intervallic combinations.

C. For a further exercise try to harmonise every 1st and 3rd note of the bar with the left hand first, a chord featuring that note. Any chord will work. Take C# for instance. The chord could be Bb Flat7#9 and the 2nd and 4th notes may be taken into account for the harmonic choice. Then try playing a LH melody and harmonise it with a chord using the RH.

D. Repeat this cerebral exercise for all combinations of 3rds, 4ths, 5ths, 6ths, and 7ths.

E. Try to speak <u>*every*</u> pitch and don't play a note that is not visualised before it is played. This will enhance the 'ear' and accelerate any further navigation of future musical situations including transcribing and playing in an ensemble situation[2].

iii) Nicolas Slonimsky[3] Variation Experiment

The aim of this experiment is to gain familiarity with a principal tone and its neighbours. Using principal tones of a Tri-tone interval[4] and instead of playing the supporting tone after the principal tone, this exercise gives more weight to the *principal tone* by playing the neighbour[5] before it. Follow the steps below (also, see Figure 8-3 and 8-4, and sound file 'Equal divisions of an octave').

[1] See video 'The Spoken Melodic Experiment'
[2] And listening to your mother clearly.
[3] This experiment is modelled on the book *Variation on Thesaurus of scales and melodic patterns, Nicolas Slonimsky* 1947
[4] Can be any interval that divides the octave
[5] A note nearby

A. For example, if the principle tones (underlined) are C $F^{\#}$ and C play a minor 2nd below variation of B, C, F, $F^{\#}$, B, C, then descending F, $F^{\#}$, B, C. The inverted pattern is made by approaching the principal tone from a semitone above instead of from a semi-tone below. For Example, $C^{\#}$, C, G, $F^{\#}$, $C^{\#}$, C, G, $F^{\#}$, $C^{\#}$, C.
B. All available intervals from above or below should be played in the one exercise (see video, Nicolas Slonimsky Variation Experiment')
C. This exercise is more effective when the player sings the interval during performance and the metronome is on a slow tempo. 40-60 beats per minute per quarter note is the recommended tempo.
D. This may take 20-40 minutes depending on how many *octave registers* you use and how many *equal octave divisions* you explore.

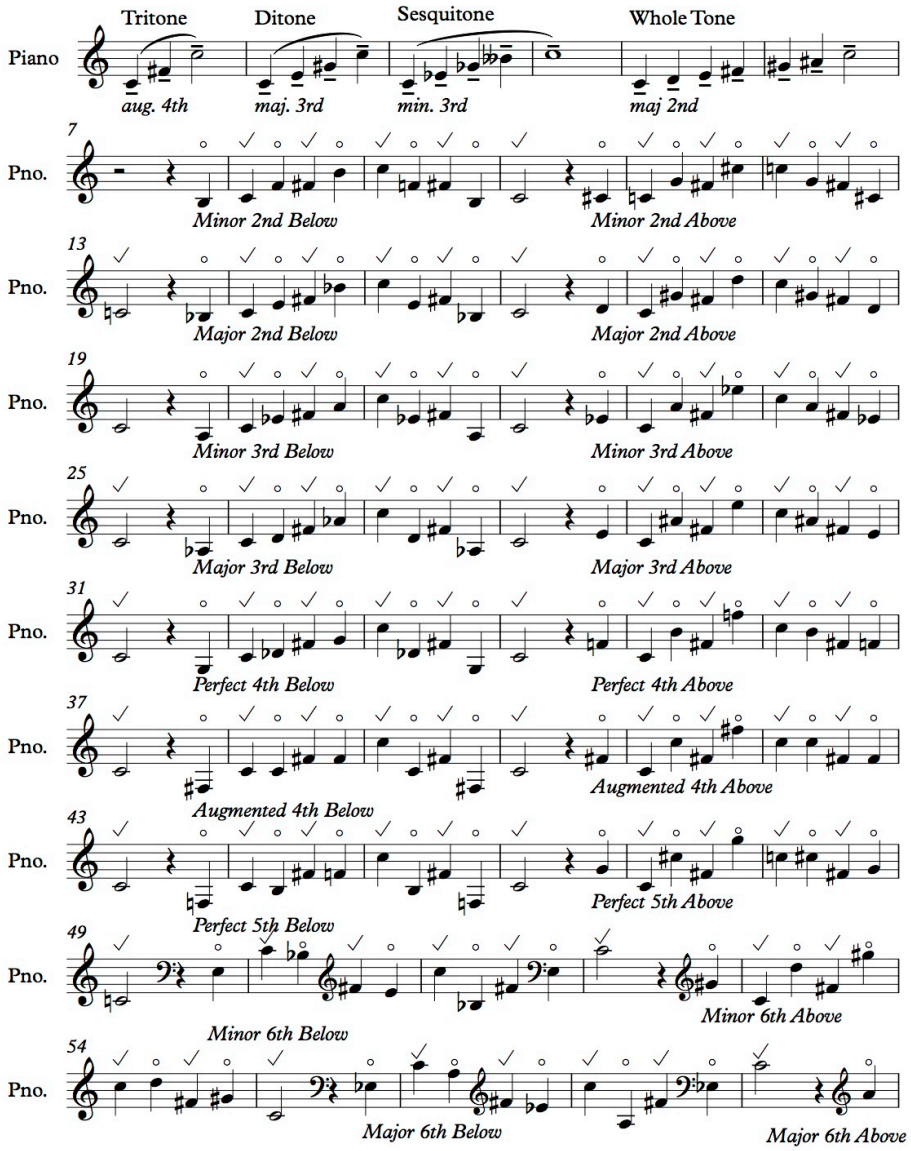
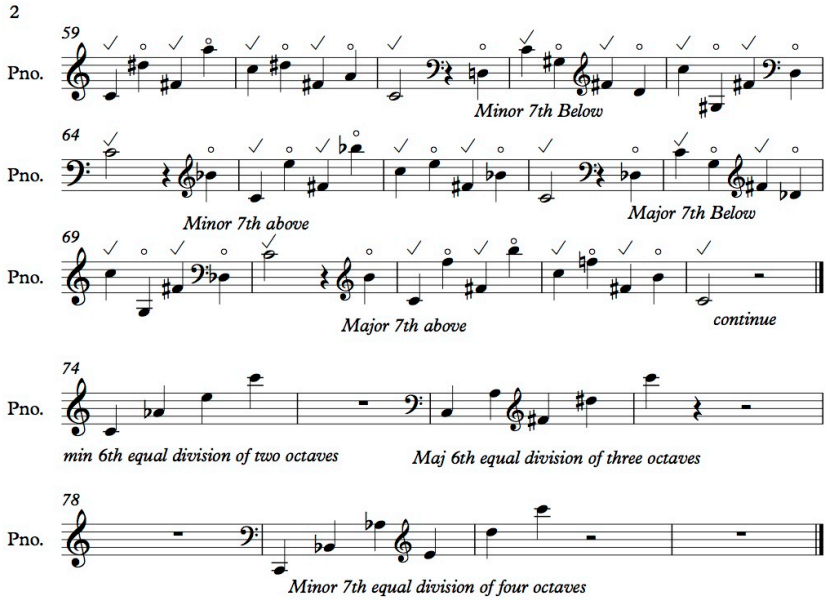


Figure 8-3 Equal divisions of an octave



apply supporting tones to each division of the octave
1. Ditone
2. Sesquitone
3.Whole Tone
Then.....
Apply to Min 6th division of two octaves
Apply to Maj 6th division of three octaves
Apply to Min 7th division of four octaves

Figure 8-4 Equal divisions of an octave continued.

iv) The Self-Transcription Experiment

This experiment uses a sentence of a self transcribed speech harmonised and restructured to mimic the voice, done in real time. The aim is to speed up the process of 'transcribing speech' and to 'find your own voice'. Follow the steps below.

A. Record a **short** sentence of talking
B. Loop a recording of your voice. Don't slow the tape down.
C. Once the phrase begins to sound like it is more melodic add chords and or counterpoint to the melody. (Show video example)
D. This may only take 30 to 60 minutes to complete (See video '*The Self-Transcription Experiment)*

v) The Simple Tune/Complex Harmony Experiment

The aim of this experiment is to hear a harmonic intervallic possibility against a known pitch

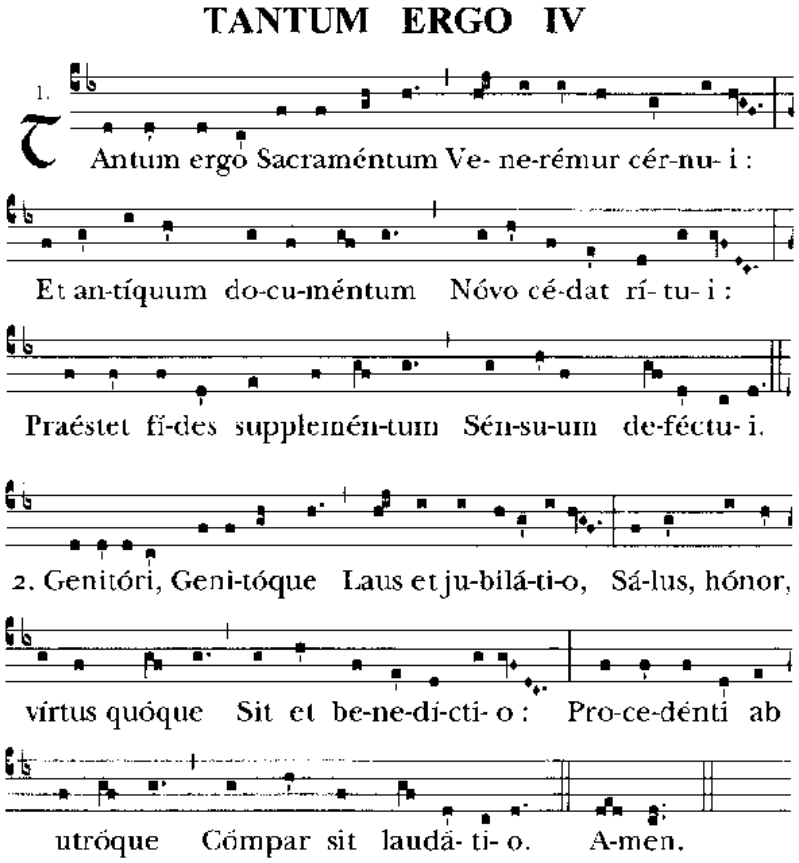


Figure 8-5 Tantum Ergo IV

A. Play the melody to Tantum Ergo[1] with the RH. This melody is chosen for its step-like qualities (Figure 8-5[2]). Other simple[3] melodies could include Danny Boy, Autumn Leaves, Oh When The Saints and Mary Had a Little Lamb.
B. With the LH, play the interval simultaneously with the RH melody note. Start with a minor 2nd interval and work towards a Major 7th [4]

[1] "Tantum Ergo" is the incipit of the last two verses of Pange Lingua, a Medieval Latin hymn written by St Thomas Aquinas c. 1264
[2] http://romaaeterna.jp/andrew/dm1807b.gif
[3] Any piece that largely stays in a single tonality/mode with no accidentals
[4] Recommended reading: 'Hannoford has written about Intervallic Rhythmic Devices in his Thesis, Elliot Carter's Rhythmic Language, A Framework for Improvisation, 2012

C. Add another interval then try again with 1 RH, 2 LH intervals and then 2 RH 2 LH intervals.
D. Sing all left hand intervals then all right hand intervals.
E. Try to implement this knowledge in your playing in other contexts.

Improvisers who have similar parallel harmonic intervallic methods evident in their improvisations and arrangements include Bill Evans[1] (USA), John Taylor (UK)[2], Tony Gould[3] (AUS).

vi) The Composed Experiment

The aim of this experiment is to compose a written etude based on the findings of this research. Key focus points: Virtuosity, Harmony, Fluidity, and Linking of ideas. My etude will include themes that include every pitch and every possible dual note sequential intervallic combination whilst still sounding spontaneous and improvised (it will be composed). The piece should sound melodic, as if only one pitch has the main attention at any given time. It will be conversational and the balance will only be lopsided when a melody is 'rudely interrupted' by another melody (i.e. talking over the top (See '*Never Sing, Speak*' Video). The piece features the voice and the piano concomitantly.

vii) The Composed Grace Note Intervallic Experiment

The aim of experiment-9 is to compose an etude where grace notes or brush notes[4] are featured. This *etude* will focus on the grace notes used in the transcriptions from 'Things That Have Been Said' and draws further information from the interview with Hannaford.[5] The voice will be used alongside the piano. (See *grace note intervallic experiment* video)

[1] Bill Evans Trio-Very Early https://www.youtube.com/watch?v=KOjEEaUNyC4 1:10 to 1:16
[2] Ambleside-John Taylor https://www.youtube.com/watch?v=PK8xQDDjaU8 4:46 to 4:48
[3] Tony Gould:Rob Burke Quartet-Wide Eyed https://www.youtube.com/watch?v=iQRHWb7wmk0 0:06 to 0:16
[4] 'How can I get this thing the piano to sound a coordinate flat? For me you know there's a lot of this in Monk, Cecil Taylor where those two guys sound like they're getting in between notes by using certain harmonies or certain intervals, inflections, grace notes or brush notes, these sort of things' – Hannaford, 2017
[5] 'This phenomenon of moving around pitch in a more flowing and elastic way using grace notes,

viii) Recordings of improvisations Experiment

This experiment pays attention to how one can improvise freely, and how one can communicate.

A. Simply record an improvised conversation between the LH and the RH
B. Listen back to the improvisation
C. Repeat (See '*Improvisation- Conversation between hands'* video[1])

Part 3: Summary

With the usage of videos to demonstrate a clear experimental intention, and by imparting a step-by-step interchanging of ideas and methods, one can explore deeply the intervallic permutations nestled within the voice.

With further exploration of these experiments further speech stimuli can be discovered.

One can envisage clearly the benefits of future study with these experiments. By continuing the piano etude tradition of Chopin, Slonimsky, Hannaford and others, it is evident that the natural evolution is for the voice to be added to this tradition, voice and instrument, together as one opinion.

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brush notes, to play a quarter tone, is something that could very much build an improvisers vocabulary' – Hannaford, 2017 See, grace notes etude video and score

[1] https://www.youtube.com/watch?v=FTIgD1ltObI