TEACHING VIBRATO:
AN ECLECTIC APPROACH

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Early Writings on Vibrato

Leopold Mozart: *A Treatise On The Fundamental Principles Of Violin Playing* (1756)

For if we strike a slack or a bell sharply, we hear after the stroke a certain wave like undulation of the struck note. And this trembling after-sound is called tremolo….Take a pains to imitate this natural quivering on the violin, when the finger is pressed down on the string, and one makes a small movement with the whole hand; which however must not move sideways but forwards toward the bridge and backward towards the scroll.

Louis Spohr: *A Violin School* (1831)

….*(width of tremolo) should only be slight, in order that the deviation from purity of tone (intonation) may scarcely be observed by the ear.*

James Winram: *Violin Playing and Violin Adjustment* (1908)

*There should be no close shake (vibrato) in exercises or scales, other than melodic exercises, and it should be judiciously used at all times, as it is possible to have too much of a good thing.*
An Overview of Violin/Viola Pedagogy Approaches to Teaching Vibrato

Paul Rolland (1911-1978):
“It is the movement of the fingertip that is the ultimate cause of vibrated sounds.”

Unique to Rolland’s Approach to Teaching Vibrato:

Clearly defined measurable qualities of artistic vibrato:
- The speed and width of the vibrato movements are regular (i.e. reasonably even).
- The average speed of the vibrato is about 6 and ½ cycles per second.
- The average width (amplitude) of the vibrato is a quarter-tone.

Teaching:
- Violin/viola hold: “scroll up position”
- In early stages of learning vibrato teacher manipulates student’s fingers, wrist, arm,….
- Vibrato exercises with and without instrument & in different violin/viola hold positions
- When to start? -- As soon as student starts shifting

Rolland’s Exercises (pre-exercises) for Teaching Vibrato:
- “Relaxation Exercises”:

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- “Tapping Exercises”:

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- “Shuttle Exercise”:

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- “Tap and Hold Exercise”:

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- “Pulsating the Fingers Exercise”:

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- “Rivarde Exercise”:

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- “Polishing the Strings Exercise”:

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- “Exercises for Developing Flexibility of the Wrist and Fingers”:

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Samuel Applebaum (1904-1986):
“The flexibility of the first joint (nearest the fingertip) is essential for development of a good vibrato.”

“The Art and Science of String Performance” p. 64

Unique to Applebaum’s Approach to Teaching Vibrato:

Clearly explained sympathetic motions that accompany different types of vibrato:
- Hand vibrato causes sympathetic motion in forearm.
- Arm vibrato causes sympathetic motion in the upper arm.
- Finger vibrato causes sympathetic motion in the hand.

Teaching:
- Specific order of fingers: 2nd finger, 3rd finger, 4th finger, 1st finger (first in III position)
- Exercise for development of flexibility of left hand finger joints
- Exercises for too fast, too slow, and inconsistent vibrato
- When to start?- As soon as student experiences/masters shifting between 1st and 3rd position

Applebaum’s Exercises for Teaching Vibrato:
- “Preparatory Exercises”:
- “Exercise for Development of Finger Joints Flexibility”:
- “Finger Oscillations”:
- “Exercise to Speed Up Vibrato”:
- “Exercise to Slow Down Vibrato”:
- “Finger-Legato Exercise”:

George Bornoff (1907-1998):
Unique to Bornoff’s Approach to Teaching Vibrato:

Clearly explained the relationship between finger and wrist vibrato movement:
- Vibrato originates from the tip of the finger.
- The finger pulls the wrist, rather than wrist pushes the finger.

Teaching:
- Emphasized that the finger needs to pass the vertical position to develop flexibility in the knuckles of the left hand
- Explained an important rule regarding the relationship between the length of the string and the speed of the vibrato that applies to all four bowed-string instruments: As the length of the string decreases the speed of the vibrato increases.
- Offered the most systematic approach to practicing measured oscillations

Bornoff’s Exercises for Teaching Vibrato:
- “Preliminary Exercises”:

- “Controlled Oscillations ”:

- “Continuous Oscillations”:

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Ivan Galamian (1903-1981):

“The combining of all types of the vibrato with all of the dynamic nuances and shadings of which the bow is capable can result in an endless succession of possibilities for giving life, color, and variety to a violinist’s performance.”

“Principles of Violin Playing & Teaching” p. 38

Unique to Galamian’s Approach to Teaching Vibrato:

Clearly explained the order of movements:
- In hand vibrato impulse comes from hand and finger lets itself be moved by the action of the hand. (Many beginners have difficulty with hand vibrato because finger leads it.)
- In arm vibrato impulse comes from forearm and hand lets itself be moved by the action of the forearm
• In finger vibrato impulse, however, comes from finger itself. Last type of vibrato to be taught

Teaching:
• When practicing or using hand vibrato, the first motion needs to be backward (towards the scroll).
• At first, vibrato needs to be taught in III position.
• Galamian provided exercises for development of fingertip vibrato (simulated finger vibrato) to be used in fast, yet expressive passages.
• Elaborated on the relationship between vibrato and the dynamics of the bow: intense and wider vibrato is more appropriate for *forte* dynamics (arm vibrato) and narrower and slower vibrato is more appropriate for *piano* dynamics (finger and wrist vibrato).
• Additionally, vibrato needs to reflects musical style (vibrato in Mozart vs. vibrato in Brahms) and he explained that the shape of player’s finger has important influence on type of vibrato.

Galamian’s Exercises for Teaching Vibrato:
• Resting violin/viola scroll on music stand or wall:

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• Intermediate step: teacher inserts two-three fingers between student’s hand and instrument:

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• Use of dotted rhythms:

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• Exercises for loosening the finger joints:
  o Finger on string and alternate stretching and bending the joint closest to nail (no bow):
  o Substitution of lower numbered finger with higher numbered finger:
  o Playing chromatic scales with sliding fingers:

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Dorothy DeLay (1917-2002):
“DeLay, to date has the notion, that one of the keys to gauging the communication of the human emotions in violin playing, is to be able to tap into the relationship between energy and relaxation. The factors of vibrato are such that the control of vibrato itself, can effect the amount and quality of energy that is conveyed at a particular point in a piece of music.”

“An Investigation Into The Realm of Violin Techniques: Conversations with Dorothy Delay” by Nancy Hsu-Hsein Tsung, pp. 43-44

Unique to DeLay’s Approach to Teaching Vibrato:

Clearly explained the notion and concept of “Vibrato Ping”:

- “Ping” is the term that describes the phenomenon of energy and relaxation in vibrato.
- If the pitch is played for a while at a constant speed of vibrato and if speed is reduced at the last second before returning to the pitch, very quick return to the pitch is what creates energy or “ping”.
- In order to gain this control, DeLay suggests vibrato control exercises to be practiced in duple-groupings, and never in triplet groups starting

Teaching:

- Order of fingers: 2nd, 3rd, 1st, and 4th and start vibrato exercises on second string (e.g., on A string for violins)
- Includes harmonics in practicing controlled vibrato oscillations and progresses to practicing the same exercises without harmonics (i.e., solid finger on string)
- Advance from simple duple-groupings into dotted- and double-dotted rhythms only after student graduated from harmonic to solid finger stage of controlled oscillations.

DeLay’s Exercises for Teaching Vibrato:

- Arm vibrato:

- Wrist vibrato:

- Finger vibrato:
  - Start with 2nd finger in IV position on second string (e.g., on violin that would be F natural):
  - Finger in ‘play’ position -‘flat down or relax position’ (e.g., on violin that would be E)-back to ‘play’ position
  - Practice with steady, duple-groupings on MM=54 then MM=88.
  - The forward ping always comes on-the-beat. Include harmonics to remediate too narrow vibrato and move exercise to other strings.
  - Be attentive to the intonation of main pitch as it tents to go higher and higher as exercise progresses.
Postlude: Other String Pedagogy Approaches……

Shinichi Suzuki:
- Proposed “Two Tone Vibrato”
- Proposed that while fingertip movement is propelled by the wrist and forearm, the fingertip pad first roles forward than backward.
- Suggested teaching vibrato after several years of instruction (in Book 4 – around Vivaldi a-minor Concerto)

Kato Havas:
- Advocated “natural vibrato” versus “forced vibrato”
- Explained that when fingers are very lightly placed on the string “small column (or cushion) of air” remains in between the string and finger. When the bow is drawn across the string this column of air vibrates.

Samuel Fisher:
- Proposed only two types of vibrato: (a) arm vibrato and (b) hand vibrato. Finger vibrato is a part of arm or hand vibrato.
- Proposed that first step in development of vibrato is to not to concentrate on vibrato itself but to concentrate on balance and lightness of the hand.
- Explained that continuous vibrato has two aspects to it:
  - Every note in the phrase needs to be vibrated (unless too fast): some notes are vibrated more some less, some faster, some slower, some wider, some narrower
  - Vibrato should not start late at the beginning of the note and should not stop before the end of the note: should continue between notes
- Known for suggestion to practice vibrato from every angle: arm vibrato, hand vibrato, the rotation of the forearm, individual movements of the three parts of finger, the different parts of the fingertip, every possible combination of width and speed, dynamics, etc.

Carl Flesh:
- Proposed that vibrato’s character, liveliness and duration depicts a player’s personality.
- Defined “totally satisfying vibrato” as the combination of finger, hand and forearm movements.
- Observed that the great violinists use vibrato all the time but their vibrato varies in speed and width allowing for expression of feeling ranging from the softest, almost inaudible to the more passionate and intense.

“If we consider that the goal of our violinistic-artistic endeavors is the complete realization of the feelings which a particular piece of music evokes in us, the vibrato is the most important means of achieving this end.”
Carl Flesh
STEPS FOR TEACHING VIBRATO TO UPPER BOWED STRING INSTRUMENTS AT BEGINNING AND INTERMEDIATE LEVEL OF INSTRUCTION IN PRIVATE STUDIO AND GROUP SETTINGS

“We begin with the hypothesis that any subject can be taught in some intellectually honest form to any child at any stage of development.”

Jerome Bruner, 1960

Pre-Requisites:

(a) Proper body posture: legs need to act as a platform for upper body; upper body and shoulders need to act as a platform for instrument.
(b) Left-hand frame established
(c) Soft and relaxed left arm, hand and thumb
(d) Fluency in shifting from lower to middle positions

(a) Exercises for establishing proper body posture:
  - Rolland steps
  - Suzuki steps
  - Havas steps
  - Kampter steps

(b) Exercises for forming left-hand frame:
  - Geminiani chord (violin: 1st finger on F natural, 2nd on C natural, 3rd on G and 4th on D) & Leopold Mozart exercise
  - Left hand pizzicato (Pinkie Plucks in low, middle and high positions) and strumming
  - Playing familiar songs and scales while keeping 4th finger down on upper and lower adjacent strings
  - Double stops (in advance stage)

(c) Exercises for relaxing left arm, hand and thumb:
  - Relaxation exercises:
  - Swinging left arm before playing
  - Dropping left arm down while playing (e.g., in "Twinkles")
  - Relaxing the arm by doing “Ski Jumps” and “Shuttles”
  - Relaxing the wrists by moving it in and out
  - Relaxing the thumb by tapping it against the neck, as well as moving it back and forth
  - Tapping exercises:
  - With the hand in the middle position and thumb under the neck, tap with the curved third finger on the top of the upper board to the left of the lowest string rhythms of the choice while imagining a ping-pong ball bouncing back.
  - Tap rhythms of choice on each string while imagining fingers touching a hot-stove
• Combine “Tapping” rhythms in low, middle and high positions with the “Shuttle” exercises

(d) Rote shifting exercises:

- **Ghosts** (harmonic glissandos)
- **Octave Harmonics**
- **Matching harmonics**
- "Twinkle, Twinkle" with harmonics
- **Up the Scale with Au Claire de Lune**

Suggestion: Check pp. 2-3 in *Viva Vibrato* method book (Gerald Fischbach & Robert Frost) for additional ideas on vibrato readiness.

**Learning Vibrato Motions in Three Stages:**

**Finger Vibrato:**

- **Beginning Stage** (*no instrument - no bow stage)*:
  - Calisthenics Knuckles: flattening and bending the first knuckle of each left hand finger; needs to be rhythmical in motion; use of small rubber balls with the chant *Fingers Flopping Never Stopping* suggested (*partially adapted from Paul Rolland-Rebecca Henry*)
  - Jelly Knuckles: “flyby” first knuckle (*adapted from Rebecca Henry-Paul Rolland*)

- **Intermediate Stage** (*yes instrument-no bow stage)*:
  - Calisthenics Knuckles: on top of the instrument; order of fingers: third, second, first and fourth finger (*order of fingers adapted from Judy Bossuat*)
  - Place finger on string and alternate stretching and bending the finger while doing *Dinner Rhythms* (*Dinner Rhythms adapted from Judy Bossuat*)

- **Advanced Stage** (*yes instrument-yes bow stage)*:
  - **Pulsating or bouncing fingers** as if altering harmonics and stopped tones while doing *Dinner Rhythms* on each finger; later play one-octave scales with pulsating fingers; it will sound like harmonics; try to keep bow hand unaffected by left hand (*Carl Flesh; adapted by Paul Rolland*)
  - **Pre-Measured Wiggle Exercises**: must be with teacher’s help for a long time (*Paul Rolland; adapted by Rebecca Henry*)
    - Just wiggle:
      - Scroll on teacher’s shoulder
      - Student plays "Twinkle" while sliding on Magic X
      - On every on-string finger the teacher places his/her right fingers on student's finger and wiggles the student's finger. The teacher’s left hand is being placed in the student’s left-hand palm.
    - Focused wiggles:
      - Teacher is wiggling the student’s finger with the right hand on top (three fingers) of the student’s finger
      - Student’s thumb away from instrument and wiggle
• Students’ thumb on neck
• Teacher shakes student’s finger (with two fingers); try to find good sound (fast, wiggly)
  o “Pivoting Shifts” (Paul Rolland)
  o Substitution of lower finger for higher (adapted from Ivan Galamian)
  o Chromatic scales with sliding fingerings (adapted from Ivan Galamian)

Wrist (Hand) Vibrato:
  o Beginning Stage (no instrument-no bow stage):
    o Egg Shaker exercise with Dinner Rhythms; suggested use of Easter egg-shells filled up with the rice or beans (adapted from Judy Bossuat)
    o Relaxed wrist exercise Dinner Rhythms (adapted from Paul Rolland)
  o Intermediate Stage (yes instrument-no bow stage):
    o Tapping exercises (adapted from Paul Rolland):
      ▪ With the hand in the middle position and thumb under the neck, tap with the curved third finger on the top of the upper board to the left of the lowest string rhythms the choice while imagining ping-pong ball bouncing back.
      ▪ Tap rhythms of choice on each string while imagining fingers touching the hot-stove
    o “Rivarde Exercise” (Carl Flesh-adapted by Paul Rolland)
      ▪ Hand in middle position with lower part of the palm touching instrument’s shoulder
      ▪ Third finger lightly touching the string (harmonic touch)
      ▪ Slant the hand back towards the scroll, press the third finger and propel hand forward, then let it fall back immediately, then rest. This is a single vibrato cycle.
      ▪ Practice with all of the fingers in patterns of two, three, four and five full cycles followed by rests.
  o Advanced Stage (yes instrument-yes bow stage):
    o Controlled Oscillations
      ▪ Dinner Rhythms with harmonics touch in middle position (Adapted from Louis Kievman by Dijana Ihas)
    o Bornoff’s sequence with little more pressure (adapted from George Bornoff)
      ▪ Continuous Oscillations Bornoff’s sequence (adapted from George Bornoff)
      ▪ Dotted rhythms (adapted from Dorothy DeLay & Samuel Fisher)

Arm Vibrato:
  ▪ Beginning stage (no instrument-no bow stage):
- **See-Saw exercise** *(developed by Dijana Ihas)*
- **Coordination exercise** *(adapted from Paul Rolland & Rebecca Henry)*
  - Both hands are opening
  - Parallel motion
  - Left hand goes down & up while bow is moving slowly
  - Right hand tremolo left hand glissando

- **Intermediate stage** *(yes instrument-no bow stage):*
  - **Polishing string exercise** *(adapted from Paul Rolland & Mimi Zweig)*
    - Instrument in “rest position”
    - With tissue paper “polish” the strings in the low, middle and high positions while keeping the base of the first finger close to the instrument’s neck
      - Repeat without the tissue paper.
      - Repeat in “shotgun” position.
      - Repeat in “playing” position.
  - **Sliding on Magic X exercise** *(start with instrument in rest position)*
    - Big motions
    - Smaller and smaller
    - Stop fingers while thumb is still moving
    - Opposite: thumb stops while fingers are still moving (fingers off)
    - Thumb and fingers are anchored while continuing balanced swinging

- **Advanced stage** *(yes instrument-yes bow stage):*
  - **Ghost Exercise**: harmonics and stop anywhere; same pressure on harmonics and vibrato *(Paul Rolland; adapted by Rebecca Henry & Mimi Zweig)*
  - Play open A or D string with slow bow while sliding on Magic X. *(Paul Rolland; adapted by Rebecca Henry)*
  - Twinkle Theme (and all other beginning songs) while sliding on Magic X on every open D and A string *(Paul Rolland-adapted by Rebecca Henry)*
  - **Finger-Open String Exercise** *(adapted from Rebecca Henry)*
    - In III position
    - Two quarter notes per bow – *legato*
    - 1<sup>st</sup>-open 1<sup>st</sup> open; 2<sup>nd</sup>-open 2<sup>nd</sup> open; 3<sup>rd</sup> open 3<sup>rd</sup> open; 4<sup>th</sup> open 4<sup>th</sup> open; and back starting with 4<sup>th</sup>
    - Release elbow during open string
  - **Open String-Finger** *(variation on the above exercise):*
    - In III position
    - One quarter note followed by half note - *legato*
    - Open 1, open 2, etc. like above

- **Suggested bowings for this variation:**
  - One note (half note) per bow
• Quarter note up bow and half note down bow;
• Slurred quarter and half note
• Both elbows swing into it

o Applying learned vibrato motions/skills:
  ▪ French Folk Song in III position (starting pitch for violins G on A string)
  ▪ *Viva Vibrato!* Method book and DVD provides full repertoire of pieces to be practiced in developing stage of vibrato.
  ▪ In pieces: start with “assigned to vibrate notes”

**Remediating vibrato:**

• **Concern:** The student’s vibrato is too wide and therefore not applicable for soft dynamics.
  o **Remedy** for controlling width of vibrato:
    ▪ If the student has too wide a vibrato, practice fast vertical motions with each finger in 3rd position; fingers go very fast down and up (like thrill vibrato) *(adapted from Samuel Fisher)*

• **Concern:** Student always plays with the same speed of the vibrato and therefore is not able to vibrate notes in faster passages.
  o **Remedy** for controlling speed of vibrato:
    ▪ Practice scales in long note values with crescendo to decrescendo and all kinds of dynamic combinations *(adapted from Rebecca Henry & Paul Rolland)*

• **Concern:** Student vibrates only some notes or student starts the note without vibrato, adds some vibrato and stops vibrating again.
  o **Remedy** for developing continuous vibrato:
    ▪ *Walking Fingers* *(adapted from Rebecca Henry)*
    ▪ Scales in quarter notes (bowing pattern: first note separated, other notes slurred); vibrate in between notes; release finger before transferring to next
    ▪ Bornoff’s *Continuous Oscillations* exercises

• **Concern:** Student avoids vibrating even though she/he has technical facilities to do so.
  o **Remedy** for encouraging student to incorporate vibrato in their playing:
    ▪ Assign a few *special notes* in the piece that the student must vibrate and then expand to other notes

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**Vibrato Prayer**
(by Igor Ozim; with thanks to Dr. Fischbach)
Grant me that I vibrate:

- all 1<sup>st</sup> and 4<sup>th</sup> fingers,
- the first short note after a long note,
- the last note before a shift,
- the first note after a shift,
- when crossing a string,
- and in diminuendo,

AMEN.
References


