Sliding Into Jewishness: A Pentimento of Portamento

by

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Chapter 1: Introduction

My Violinist Identity

To be a violinist is to assume a lifelong and life-consuming identity that has the potential to encompass nearly all genres of music, result in both immense pleasure and physical pain, and extend to practically limitless intellectual and emotional expression. Many, though certainly not all, violinists start learning their instrument at a fairly young age. Working through a sequence of scale and etude books – Kreutzer, Rode, Dont, Paganini, perhaps some Wieniawski or Ernst for the particularly precocious – young violinists gradually build up their technical chops, allowing them to play challenging passages in any position, in fingered octaves, in tenths, with ricochet bowing, with up-bow staccato, with double stop false harmonics, playing arpeggios while simultaneous plunking out a melody with left hand pizzicato... The list of increasingly difficult technical achievements seems endless, yielding its fruits fully only to those with immense talent, dedication to put in thousands of hours of practice, and access to a fine instrument and bow. With the most technically difficult repertoire of any of the bowed strings instruments, violin playing might be viewed as a progression of tasks, waiting to be conquered by the gifted and talented. With this type of goal-oriented appeal, violin playing is one of the top activities for high-achieving high school students around the world.

But what does the identity of being a violinist mean in this modern system? With increased accessibility to music education comes the increased commonality of becoming a musician, and when many musicians become “musicians” to put “music”
on their college resumes, many times quitting upon starting college, the lines between “violinist” and “musician” identities starts to blur. As both technician and sonic sculptor, the violinist identity is twofold, and every violinist must choose a personal balance, in practice and performance, of how these two identities play into their playing. As this is such an intrinsically personal process, I begin my thesis with my personal musical journey.

I grew up surrounded by classical and klezmer music. Home videos reveal my early musical inclinations as a toddler: listening to Itzhak Perlman and Pinkhas Zuckerman play the Handel-Halvorson Passacaglia on PBS, dancing around my house to Perlman’s In the Fiddler’s House album, singing “yeah yeah yeah” along to the Beatles’ She Loves You. I started taking private piano lessons in third grade, and I began learning violin in public school in fourth grade. I quickly developed a canon of favorite violin recordings, among these, listening to Jascha Heifetz and Arthur Rubinstein’s recording of the Franck Violin Sonata every night before going to sleep for months on end. Yet the sublime musical interpretations and abundance of Jewish violinists of my classical CD collection was not matched in my elementary school musical environment. Weekly group lessons were filled with shrill, out-of-tune notes and the constant glimmer of hope that “maybe we will start learning vibrato next month.” Leading into our fifth grade concert of poorly arranged Christmas music, I decided I had had enough and quit the violin.

Naturally, that did not last for long. Realizing how much I missed playing and how much I still had to learn, I resumed playing violin in school and began taking
private violin lessons outside of school. For the next seven years, my life became increasingly consumed by a fairly standard “talented high schooler” classical music immersion experience. I began commuting a few hours each weekend to take lessons with Charles Parker in Philadelphia, also participating briefly in Temple University Music Prep’s chamber orchestra program. Following a few summers of 2-week chamber music camps, I spent the summer after my junior year at the 6-week Boston University Tanglewood Institute orchestra and chamber program in Western Massachusetts, serving as principal viola in the orchestra and receiving nonstop incredible musical coaching. I was also accepted to participate in the MENC All-National Orchestra Festival, at which I had the opportunity to perform Beethoven Symphony 5 at the Kennedy Center in Washington, D.C.

Throughout this process of transforming into a classical violinist, most of the music I played existed in stylistic vacuums, devoid of sufficiently informed musical context. I learned precisely how to adjust my bowing and vibrato color accordingly to the styles of Bach, Brahms, Franck, Sibelius, or Tchaikovsky, but learning these stylistic differences either directly from my teacher or from recordings of the pieces I was playing led to an artificially compartmentalized view of style that was almost fully out of touch from my natural musical instincts. When I started learning Ernest Bloch’s Nigun and Pablo de Sarasate’s Zigeunerweisen during my junior year of high school, I approached these works no differently than other Romantic repertoire, even though I was much more intimately familiar with the non-art music influences of these pieces. Even though I grew up singing nigunim, wordless melodies, in my
Conservative synagogue, I did not truly make the connection between singing soulful tunes and playing notated melodies.

In April 2012, having been accepted to Wesleyan early decision and just after attended WesFest, I sent Professor Mark Slobin an email inquiring about the current status of klezmer music at Wesleyan. I had formed a klezmer trio my senior year of high school and was looking forward to continuing in college. Upon learning that the Wesleyan klezmer band had been defunct for the past few years, I took it upon myself to start a new klezmer band, eventually named Veeblefetzer. Many of the choices I made early on in my freshman year were instrumental in diverting my prior musical trajectory. Rather than continuing with classical violin lessons, I instead took a semester of Appalachian fiddle lessons, and I started pursuing klezmer and Yiddish music more seriously, attending KlezKamp for my first time in December 2012, taking Professor Slobin’s “Yiddish Cultural Expression” course that spring, and spending my next two summers studying Yiddish language at the Steiner Summer Yiddish Program in Amherst, MA.

Only at KlezKamp did I first fully realize the musical crossroads I had reached. Working closely with fiddlers Cookie Segelstein and Deborah Strauss and trumpeter Susan Watts, I received incredible feedback on my playing, with their top comment being: “You’re playing too classically!” Prior to this, I had never really thought of “classical” as a restrictive adjective in this sense, but even though I had acquired invaluable musical skills – versatile technique and the abilities to quickly learn tunes and harmonize by ear – through my classical training, I found the
improvisatory and seemingly “messy” approach to pitch control, tempo, and bow usage to be surprisingly foreign and uncomfortable. How did I reach this point where a natural way to sing a Jewish melody was almost impossible to translate into much more polished and thus more restricted violin playing?

I have spent the past four years at Wesleyan facing and overcoming the stylistic discontinuities between classical music training and now the performance of American, Eastern European, Balkan, and Celtic fiddle musics. Even though I have always enjoyed playing violin, only recently has my violin playing started to feel cohesive and natural, and learning myriad folk dance styles has circled back to remove much of the apprehensive perfectionist tendencies from my classical playing. While I once had a bad case of “first violinist” complex – a hypercompetitive orchestral or chamber leader always trying to one-up other first violinists, my identity as a violinist and fiddler now is fluidly more encompassing of my identity as a composer, as an agnostic Jew, and as a musical thinker.

**Jewish Violinist Identity**

What does it mean to be a Jewish violinist, and how does my narrative relate to those of the Jewish violinists of the early twentieth century? Very few violinists discussed or wrote about the impact their being Jewish may have had on their violin playing. Many of the most famous Jewish violinists of the twentieth century were secular and nonobservant, and though they were probably exposed to cantorial music and perhaps urbanized versions of Jewish folk music while growing, we have no direct evidence that they actively thought about how this sort of early musical and
cultural exposure may or may not have evolved into musical influences later on in their careers. Despite the lack of proof that Jewishness was ever a primary part of a Jewish classical violinist’s musical identity, this type of language proliferated. In a 1940 essay about Mischa Elman, a Jewish violinist renowned as one of the greatest proponents of Romantic style, Israel Rabinovitch writes:

All agree that his tone is beautiful. The Elman Tone! Of course that’s a thing for him… Heifetz also had a pretty tone, also Zimbalist, also Menuhin, also Jacques Thibaud, but Elman’s tone - that’s an entirely separate quality - an Elman Timbre...

But while all agree that his tone is pretty, you still find some who say: too pretty! There exist critics who have an entirely unique taste in their recognition or disregard of beauty and necessity, that all beauties should be direct - pretty… As I understand, those people suffer from a type of overdeveloped aesthetic that makes them unable to tolerate the bright beauty of daylight on account of its shouting exaggeration and extravagance… They are those moon-people who wandered here to us from idyllic times that already passed or first need to come.

Those very people therefore didn’t mistake Elman’s tone, which had the color of the sun, not the moon. When Elman sets the sun free from its shackles and warms his listeners up to the highest octave of enthusiasm, the supporters come from moon-aristocracy (many of them are professional music critics) and they say: it is too pretty, too bright, too sweet.¹

Lauding Elman’s rich tone and emotional phrasing, Rabinovitch suggests that Elman’s playing is like the Sun and that Elman’s critics are “moon-people” (levone-

¹ Excerpt from “Redndik fun Mishe Elman” (“Speaking of Mischa Elman”) in Israel Rabinovitch, Muzik bay Yidn (Montreal: The Eagle Publishing Company, 1940), 207-209. Translated from Yiddish by Matthew Stein, July 2014 at the Steiner Summer Program at the Yiddish Book Center. In 1952, A.M. Klein translated many of the essays in Muzik bay Yidn into English and published them in Of Jewish Music: Ancient and Modern (Montreal: The Book Center, 1952), but this particular essay is not among those included in that collection.
mentshn) who prefer the dimmer light reflected from the Sun onto the Moon instead of looking at (or listening to) that of the Sun directly. Rabinovitch continues:

Elman is, it seems to me, the most Jewish of all Jewish violinists. He appears to me to be a more direct heir of those great Jewish folk fiddlers who used to bring tears to listeners’ eyes with the intensity of their emotions...These were the emotionally deep musicians who, through their playing, often came to express the entire suffering of their suffering nation.²

Rabinovitch reaches the conclusion not that Elman is the greatest violinist of all violinists but rather that he is “the most Jewish of all Jewish violinists”. But in what ways can one be a more Jewish musician than other Jewish musicians? Born in 1891 in a small town in the then Russian Empire, Mischa Elman showed prodigious talent on the violin from an early age and already had a flourishing international career as a classical violin virtuoso by his mid-teens. Elman’s grandfather was a klezmer, an Ashkenazi Jewish professional folk musician, literally making him a “more direct heir of those great Jewish folk fiddlers”, but Rabinovitch clarifies this statement to refer to a particular class of “emotionally deep musicians” who are able to convey and interpret the pain and suffering of the Jewish people through their playing. Does this imply that Elman’s playing is in some way more connected to Jewish emotions and religiosity? Or is he just best equipped to perform with a culturally Jewish musical aesthetic as a result of his musical influences, training, and individual stylistic preferences?

The particular wording of Rabinovitch’s praise must, of course, be interpreted within the context of his background and musical biases. Born in Poland and having

² Ibid.
played violin in a klezmer band in his early teens, Rabinovitch immigrated to Montreal at age 17 and eventually came to be the editor of Montreal’s Yiddish daily newspaper for over forty years. Upon his death in 1964, his obituary praises him as “one of the foremost authorities on Jewish music, art, and the theater... also a distinguished literary critic and a leader in the Jewish educational movement in Canada.” However, his work was not always viewed so positively during his lifetime. A 1953 review of Of Jewish Music: Ancient and Modern describes Rabinovitch’s essays as “an entirely uncritical attitude toward Jewish music” that “sneers at critical scholarship” and “fails to give... any documentation for his conclusions.” Much of this critique is directed at Rabinovitch’s loose treatment of liturgical texts and general lack of knowledge about non-Ashkenazi Jewish musics, though it also could be taken to describe the sort of sensationalist writing employed in the Mischa Elman essay. Regardless of the validity of his scholarship, though, Rabinovitch’s views on Elman’s musicality and tone are representative of those held by many listeners, both Jewish and non-Jewish, of this era, and his particular style of writing was common among many Yiddish writers. While Elman in particular was known for his warm tone, Elman, Heifetz, Zimbalist, Menuhin, among others, were each internationally renowned virtuosos, each with ardent followers who thought their favorite violinist’s tone, ornamentation, and musicality to be the best and

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3 “Israel Rabinovitch”, n.d.
4 “Israel Rabinovitch, Editor of Canadian”, 1964
5 Werner, 277.
perhaps the “most Jewish”. But is it just for rhetorical effect that all the violinists, other than Thibaud, on Rabinovitch’s list are Jewish?

A 1933 study in the Journal of Applied Psychology calculated that amongst twelve of the most major symphonic orchestras in the United States, 51.1% of first violinists and 34.2% of second violinists were Jewish. Furthermore, 45.9% of the conductors and 47.5% of the violin soloists appearing with those top orchestras were Jewish. The Jewish representation in other strings sections was somewhat lower: 32.5% of violas, 25.2% of cellists, and 14.3% of bassists, and all other instrument sections were under 15% except for two: 23.9% of percussionists and 16.7% of trumpeters. However, considering that under 3.6% of the American population in 1933 was Jewish, these figures are astronomical.

While Jewish representation in Western European orchestras was significantly lower than in American orchestras, Jewish musicians were incredibly prevalent in Saint Petersburg. Jokingly referred to as “the only school in Russia with a quota limiting the number of non-Jewish students,” the St. Petersburg Conservatory opened its doors to Jewish musicians upon its founding in 1862 by Anton Rubinstein, and it was there that famed violin pedagogue Leopold Auer taught Heifetz, Milstein,

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6 Keith Sward, “Jewish Musicality in America,” Journal of Applied Psychology 17.6 (1933): 681-82.

7 Though the exact Jewish population in 1933 is unknown, it was 3.5% in 1927 and 3.6% in 1937, though this census information notes that due to statistical flaws, these figures may be somewhat inflated. “Jewish Population in the United States,” accessed March 23, 2016, http://www.jewishvirtuallibrary.org/jsource/US-Israel/usjewpop1.html.

8 Jews accounted for fewer than 5% of the members of top orchestras in Paris, London, and Munich in 1933.
Zimbalist, and Joseph Achron in the first two decades of the twentieth century. In 1908, a group of Jewish musicians and composers formed the Society for Jewish Folk Music, an organization that aimed to research and archive Jewish folk music “by collecting folksongs, harmonizing them and promoting and supporting Jewish composers and workers in the field of Jewish music” and to create new Jewish music, motivating and assisting composers by organizing concerts of new Jewish art music, publishing new compositions, and hosting composition contests. These two institutions built the foundation on which Jewish violinists of “the most musical nation” were able to overcome prior religious quotas in conservatories, achieve international acclaim, and have access to a larger body of Jewish compositions suitable for concert hall performance.

In his memoir, Nathan Milstein recalls being asked by a Soviet Jewish cultural organization in Moscow to “play a Jewish work at one of their concerts.” He continues, “I didn’t have a single Jewish work in my repertoire, but I didn’t want to turn down thirty gold pieces. So I told them that I would play a fantasy on Jewish themes for solo violin. And I improvised right on stage. What else could I do? Jewish music has characteristic intonations that are relatively easy to imitate. My fantasy was

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11 As coined in Loeffler, The Most Musical Nation.
a big success.” Can one assume that these “characteristic intonations” of Jewish music are imitable by anybody? Is the inclusion of augmented seconds and wailing slides all there is to playing in a Jewish style? If a violinist completely unfamiliar with traditional/religious Jewish music were to play a “Jewish work” off of a page of music, would that be any more or less “Jewish” than what Milstein improvised?

Many books and articles have discussed and attempted to define these concepts of “Jewish music” and “Jewish musicians”, approaching these unanswerable questions through a multitude of disciplinary lenses. Rather than attempting to address these issues in such broad terms, this paper will present a series of brief, interconnected case studies that shed some light on the meaning and implications of “Jewishness” amongst violin soloists of the early twentieth century and continuing with later generations of violinists impacted by the pedagogical trajectory set in place by that earlier generation, focusing in particular on the use of portamento in the performance of Jewish art music. Using new methodology for analyzing portamento, I will compare contextual portamento usage in Jacob Gegna’s recording of “Choz – Jewish Melody” and multiple recordings of Ernest Bloch’s “Nigun” from the Baal Shem Suite. This small-data analysis will serve both to demonstrate my proposed portamento methodology and to provide a basis on which to discuss “Jewishness”, “individuality”, and “personal style”, as pertaining to music, as teachable and transmittable concepts connected to cultural and aesthetic preferences.

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A Musical Pentimento

The Merriam-Webster Online Dictionary defines “pentimento” as “a reappearance in a painting of an original drawn or painted element which was eventually painted over by the artist.” Though traditionally used to describe visual art, this concept can also serve as a metaphor for the process of musical interpretation and reinterpretation. Redefining “painting” to mean a “musical work”, we can describe this metaphor from either of two directions.

A composer’s initial, unperformed score of a piece may be thought of as a sketch on a canvas. As musicians begin to interpret and perform it, they each add color to that sketch, filling it in and transforming it into a living and developing musical concept. Particularly since the spread of recording technology, performers may be influenced by each other, copying or intentionally excluding elements from others’ interpretations – reinforcing or painting over parts of the canvas. The layers of paint added to this canvas might be viewed generationally, with one generation perhaps painting individual, bright, excited strokes and the next deciding to create a more subdued, uniform composition. The aesthetic of any given layer of paint might be cohesive or entirely disjoint. This additive approach, though opposite of the way in which pentimento is defined, is the process through which a layered work is established.

Working backwards, in the subtractive manner prescribed by the definition, we can learn about the general evolution of a piece’s interpretation by peeling away

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the layers added to the piece over its years of performance. In much the same way that only a small part of a painting might be covered up, either by the original artist or by a recognizably different artist, we can observe how the recent musical layer compares to what lies before. Perhaps the new layer is identical to the layers below, or maybe it’s more hyperrealistic, more romantic, or a totally different subject from what is below. The reappearance of the painted-over layers is equally telling about each of the layers above as we work backwards, seeing how each newly uncovered layer has influenced all the layers we already have seen.

The concept of pentimento provides us with an ideological framework for looking at musical expressions layered over time, repeatedly adapted, transformed, and rediscovered. As we proceed to zoom in on one particular expressive device, portamento, we will temporarily ignore certain crucial aspects of the larger musical context. But after we establish systems for analyzing individual pigments in a small corner of the painting, we will finally zoom back out to the full painting, remembering how the small, isolated analysis integrates into the composition and style of all parts of the painting – layers we can and cannot see at the moment, layers that were added by the different approaches of many individual artists throughout the painting’s existence.
Chapter 2: Portamento & Methodology

Louis Spohr, a German violinist and prolific composer, writes in his 1832 violin method book *Violinschule*:

The Violin possesses, among other advantages, the power of closely imitating the human voice, in the peculiar sliding from one tone to another, as well in soft as in passionate passages. [...] The sliding must be made so quick... as not to make a vacancy or break appear in the slide, between the lowest and highest notes.¹⁴

The violin lends itself to lyrical expression very naturally in many respects. As Spohr notes, the timbre and range of the instrument are very similar to those of the human voice, allowing for vocal imitation in the most literal sense. While fine violins are prized for producing even a fairly even timbre across the instrument, the sound of each of the four strings has its own distinct tone color. Moreover, different ranges or positions on the same string produce different tone colors. For instance, a G4 played in first position on the D string will resonate with the open G string, producing a drastically different sound from a G4 higher up on the G string, which will be richer and likely darker, depending on the specific instrument being played.

The technical means of pitch production also permit vocal-like intonations and movement between notes. Violinists can manipulate pitch microtonally by sliding or even adjusting the angle of their fingers on the unfretted fingerboard. This is how vibrato is produced – using finger, wrist, or arm movement to oscillate below and sometimes above the target pitch. By controlling the width and speed of this oscillation, along with the angle and part of the finger touching the string, violinists

can create a nuanced spectrum of vibrato. Expanded to intervals of a half step or larger, violinists can create their equivalent to vocal portamento by sliding on the same or different fingers from one note to the next.

American violinist Aaron Rosand describes portamento as “the carrying of a sound with the voice or stringed instrument, the transition from one note to another, higher or lower, without break in the sound” – an “expressive device [that] was the key to the Romantic style of violin playing.”\(^\text{15}\) I will first describe the standard classification of portamento and then go on to suggest a slightly restructured labeling convention that could allow for more versatile computational analysis of portamento. I will provide an overview of some of the methods employed in past papers to analyze portamento, followed by a new hybrid system that could provide more comprehensive insight into the contextual use of portamento across performances of the same piece by multiple violinists.

**Types of Portamento**

Milsom describes three types of portamento as used by violinists from the late nineteenth century onwards, which we will arbitrarily label Type 1, Type 2, and Type 3 for the sake of reference.\(^\text{16}\) This categorization describes different technical approaches to executing slides and is mostly independent from other qualities of slides, including direction of the slide, direction of the interval, and specific size of

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the interval, though, as will be discussed later, these other factors do correlate to this Type 1, 2, 3 categorization.

Type 1 is a slide between two notes using the same finger. This can be executed on both ascending and descending intervals. Milsom notes that though this is the simplest form of portamento, it is particularly useful for chains of portamento – multiple consecutive slides, all using the same finger.17 “Bending” a note – microtonally lowering or raising the pitch and then returning to the original pitch - is not always considered to be portamento, though it is a related expressive devise used frequently in Jewish music. However, if classified as portamento, it would also fall under Type 1 since the same finger is used throughout.

Type 2 is a slide between two notes that are each played with a different finger, thus requiring a swap of fingers somewhere mid-interval. There are two variants of Type 2 portamento: B- and L-portamento. B-portamento is used on slides in both directions, but L-portamento is typically only used on ascending intervals. The musical and technical reasons are not immediately apparent, so descending portamento will be discussed as a separate case later on.

B-portamento refers to dragging the lower (beginning) finger upwards from the lower note and placing the upper finger directly on the upper note. It is also called the “French slide”, “hook-slide”, “lead-shift”18, or “overside”19, and it was famously used by Fritz Kreisler and associated with the French school of violin playing. The

17 Ibid.
19 Ivan Galamian and Sally Thomas, Principles of violin playing and teaching, (Courier Corporation, 2013), 27.
following example is commonly used to notate this effect, though the intermediate note never would be explicitly written like this in an actual piece of music. A line to indicate a slide between two notes is sometimes included but does not inherently specify a specific type of portamento, other than what might be implied if fingerings are also included.

![Figure 1: B-portamento](image)

The first finger is placed on a B in first position on the A string. Shifting up to third position, the first finger slides upwards to some note in the middle of the interval and then the third finger is placed on the F, still on the A string. B-portamento can start on any of the first three fingers and land on any of the last three.\(^{20}\) The distance and speed at which the lower finger slides up, along with when the slide begins, determine the exact sound of this technique.

L-portamento refers to sliding into the upper note with the upper (last/leaving) finger. Also called the “Russian slide”, “end-shift”\(^{21}\), or “underside”\(^{22}\), it was a signature stylistic trait of Jascha Heifetz’s playing and generally associated with the Russian school of violin playing. The following example is analogous to that for B-portamento.

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\(^{20}\) Violin fingering ranges from one to four, with the index finger being the first finger and the pinky being the fourth finger. This is not to be confused with piano fingering, which is shifted by one from violinists’ numbering of the fingers. The thumb is never used in violin or viola playing so it is not counted.

\(^{21}\) Gerle, 97.

\(^{22}\) Galamian, 27.
Starting with the first finger on B, the third finger is placed on an intermediate note and slides up into the F. This creates the effect of swooping up into the upper note of an interval, building tension as the pitch almost reaches the upper note.

There is a third flavor of Type 2 portamento – a combination of B- and L-portamento in the same slide. This can go by different names, such as “the combination of B- and L-portamento”, describing the hybridity or compound nature of the slide, but we will just call it B-L-portamento.

In this example, the first finger slides up to an intermediate note, then the upper finger is placed on a higher intermediate note and slides up in the upper note. This combines the effects of both rising out of the lower note and swooping into the upper note while still using different fingers on both notes.

Type 3 of executing portamento, as described by Milsom, “could be termed, ‘bariolage portamenti’, that is, the swapping of the finger upon the same note (as in the case of two consecutive placings of the same pitched note) in order to alter the

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tonal quality.”  

As an exception to the starting statement of this section, this type of portamento specifies the execution of portamento on a specific interval – a unison.  

With both notes on the same string, this can take on a few forms:

- placing a finger on the primary note, placing a lower finger on a lower “intermediate” note, and sliding back up to the primary note,
- placing a finger on the primary note, sliding down with that finger, and placing a higher finger back on the primary note, or
- placing a finger on the primary note, placing a higher finger on a higher “intermediate” note, and sliding back down to the primary note.

These different combinations of swooping back to the primary note from above or below will be used on a fairly small interval, typically no larger than a third. Also note that rarely will a violinist use the fourth possible combination that was excluded from the above list – swooping up out of the first occurrence of the primary note.

Finally, it should be noted that slides on ascending intervals came into use longer before slides on downwards intervals, initially for technical reasons. Before the invention of the chin rest (a small piece of wood or plastic that attaches to the upper face of the base of the violin and allows the violinist to support their instrument more fully from the shoulder and chin/jaw), a downward slide could very easily pull the violin out from under the chin. To avoid such a disaster, violinists would often use extended fingerings rather than slides to shift back down to lower positions. Once

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24 Milsom, 93.
25 To clarify, Type 1 is “same finger”, Type 2 is “different fingers + different notes”, and Type 3 is “different fingers + same note”.
ch in rests came into use, downward slides became significantly easier to execute, both when sliding for technical and for expressive purposes. However, only Type 1 and “B-portamento” are used on downwards slides. A violinist may use the same finger to slide from the upper note down to the lower note (Type 1) or slide down from the upper note on the upper finger and place the lower finger directly on the lower note (equivalent to B-portamento), but it is musically and technically impractical to place the lower finger on an intermediate note and slide down to the lower note.26 One last exception case is sliding down to an open string or up from an open string.27 Since there is no lower finger placed for this kind of slide, I will define this to be Type 2 – different fingers for the upper and lower notes of the interval. I will later introduce specific notation to describe this case.

Once all these portamento variants were known, how were they regarded and how did individual artists choose to use them? Carl Flesch, who studied at the Paris Conservatoire, expresses a strong preference for B-portamento in his influential volume *The Art of Violin Playing*:

> When we consult the best-known violin methods with regard to this point, we are obliged to admit that all their authors without exception recognize the B-portamento as the only road to salvation, while the L-portamento, on the other hand, is excommunicated as a devilish invention of bad taste.28

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26 Lee, 19 points out Anne Sophie-Mutter as a rare exception who uses L-portamento on descending intervals.
27 There is no equivalent for ascending intervals, though some styles of music will swoop up out of a note, ending on an indeterminate higher note, for a different type of effect.
What was considered to be a “devilish invention of bad taste” to the French became one of the most salient trademarks of Jascha Heifetz’s playing and beloved by Heifetz’s audiences. However, the preference for B- or L-portamento is not such a simple binary. With so many variants and personal preferences, individual violinists, independently from the schools of style they represent, each developed a personal stylistic language with a specific combination of slides and contexts in which to use them. Aaron Rosand describes a snapshot of this history:

Milstein came soon afterwards with his personal stamp, a downward portamento that gave his interpretations a sighing effect that was warm and expressive. Menuhin arrived using both, upward and downward slides. Sometimes he would drag a finger in the manner of a glissando with vibrato from note to note. The effect was very appealing.29

Even when it became acceptable to use a combination of different types of slides, it was still difficult to please all listeners. Too many slides can be overindulgent, but a lack of slides can be cold. Leopold Auer warns against an excess of portamento: “The violinist who is tempted to make careless use of the portamento will find that it is the easiest thing in the world to turn this simplest of expressive means into caricature.”30 Yet what was considered a tasteful amount of portamento in the 1920s became too indulgent by the 50s and 60s as violinists shifted toward a cleaner aesthetic.

**A New System of Portamento Classification**

While this kind of language can be quite descriptive of the technical and lyrical qualities of particular types of portamento, it is far from optimized for easily

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29 Rosand, “Aaron Rosand on portamento.”
30 Quoted in Leopold Auer, *Violin playing as I teach it.* (New York, 1921), 63.
and succinctly comparing multiple violinists’ portamento on a larger scale. A simple parameterization of the essential qualities of portamento is the following:

\[ \text{[type][direction]{duration}}{/\text{interval}} \]

- Type is B (B-portamento), L (L-portamento), (BL) (B-L-portamento), or S (same finger). Different from the three types defined earlier, here “type” refers just to which finger is sliding. B is the finger of the starting note of the interval, L is the finger of the ending note of the interval, and S is the finger used for both the starting and ending notes of the interval. A downward slide to an open string is called $B_O$. An upward slide from an open string (or indeterminate note) is called $L_O$. If type is unknown, one may use a “?” in its place.

- Direction is either U (upwards) or D (downwards). This describes the direction of the sliding finger, not necessarily the interval. If the slide is Type 3, the interval has no “direction” but the slide still does. Otherwise, the direction of the slide and direction of the interval will indeed match.

- There are two ways to describe duration. If a computer is being used, one may measure the precise millisecond duration of the slide, starting from when the beginning note is left and ending when the final note is reached. However, such a measure is infeasible to be calculated by ear. Instead, duration can be classified as E (emphasized) or N (not emphasized), as determined by an estimated and arbitrarily defined cutoff of the proportional length of the slide relative to the length of the space between the start and end notes of the slide. Because the length of the slide depends on both the musical context and the performer’s
stylistic choices, this information is only sometimes useful for analysis and can be treated as a notational “decorator” – optionally included only if the slide is prominently emphasized or deemphasized. If omitted, it is not necessary to include anything in its place.

- Interval uses standard music theory notation – a single integer for perfect intervals and an integer preceded by either “M” or “m” to indicate a major or minor interval, an “A” for augmented, or a “d” for diminished. Unisons may be called either 1 or S (same). Interval is an important parameter if looking at an isolated list of slides as a text file. However, it may be omitted if annotating sheet music since interval information is already encoded in that notation.

Note that when multiple characters are used for a single parameter, such as B-L-portamento or multiple digits measuring duration, that information should be included in parentheses to make the notation easier to parse. Examples of some slides as described by this notational system include BUE/5, SDN/m3, LU(23)/M3, ?D, (BL)U, and ?UN/8.

If calculating these measures by ear, we must acknowledge certain practicalities of this kind of analysis. While direction and interval can always be precisely determined and the second option for duration can be estimated, the type of the slide is not always evident without significantly slowing down a recording. It is also difficult to remain impartial and fully perceptive in analysis. There is a tendency to ignore less overtly expressive slides that might be the result of less clean shifting, but these should still be included as the extreme “not emphasized” end of the
“duration” spectrum. Conversely, after hearing multiple violinists slide in a particular spot in a passage of music, it might be tempting to hear slides differently than they actually are executed in recordings of violinists who do not slide as much or at all at that spot.

**Contextual Portamento Analysis**

Past studies utilize a number of different approaches to analyze violin portamento. I will present three of these approaches and then suggest my own system, which I believe combines the strengths and accordingly supplements some of the weaknesses of the individual approaches when used on their own.

1) **Counting**: Count up the number of occurrences of portamento within a given passage of music. This technique has been used in particular to point out the decreasing use of portamento from the 1930s onward, showing that the average number of slides used in a particular passage or piece in one decade is less than later decades.³¹

This technique preserves flat figures that can be very useful in clearly showing a certain point, such as comparing the frequency of portamento in different types of repertoire or in different recordings of the same violinist. However, if used in isolation, flattening the information like this does not preserve other crucial information and may require repeatedly combing over the same data to extract each new piece of information. When combined with other metrics, ideally which

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use a non-naïve data structure that allows for the immediate extraction of certain “counting” metrics, this can be one of the most powerful ways of presenting information about portamento.

2) **Synoptic Chart:** Notate the locations of slides on side-by-side, or stacked, copies of musical notation. Use a straight line between notes, as is used in the earlier B- and L-portamento examples, to show where slides are.\(^3^2\)

   This technique makes it easy to visualize where slides from multiple recordings align, using intuitive graphic notation already used to mark slides in musical notation. It also preserves all original information from the notation if it includes that musical notation in full. However, if visual notation is used to show where the slides occur, it will take significant extra effort to extract certain quantitative information, i.e., what percent of the slides used are on a specific interval.

3) **Sonograph:** Analyze particular aspects of a particular slide at a micro level.

   Zooming in on pitch information, one can measure the exact duration of a slide and see the continuity and breaks in pitch to more accurately determine the type of a slide, if it is not evident by ear.

   This technique is the only of the three mentioned that requires the use of a computer. It can be used to help automate the process of extracting portamento information, though it seems that nobody has yet fully automated this process of portamento analysis, teaching a computer to identify and classify slides in a

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recording. Sonographs or pitch tracking can also be used when analyzing portamento by hand, but it will likely be combined with other macro analysis techniques.

When designing a system to analyze a particular type of expression, the foremost concern should be to preserve as much information in as flexible a way as possible, such that: (1) subsets of the data can be easily and quickly extracted, (2) the procedure for extracting data is repeatable and reproduces the same results each time, (3) the system can be combined with other systems that analyze other types of expression, and (4) ideally, that the system can be used both by humans or by software.

Using the aforementioned system for portamento with four bits of information for each slide occurrence, (1) is satisfied trivially. Suppose the slides are stored in a flattened list \([p_0, p_1, \ldots, p_{n-1}]\), where \(p_i\) is a tuple \((\text{Type}_i, \text{Dir}_i, \text{Dur}_i, \text{Int}_i)\). Suppose we want to know: for slides of Interval X, how many slides are of Type Y and how many are of Type Z? The following pseudocode calculates this:

```python
let xy = 0, xz = 0
for pi in [p_0, p_1, \ldots, p_{n-1}]:
    if pi[Int] == Int_x:
        if pi[Type] == Type_Y:
            xy += 1
        else if pi[Type] == Type_Z:
            xz += 1
return (xy, xz)
```
Using nested “if” statements like this, we can easily count up, measure other parameters of, or even add new bits of information to slides that are a specific subset of classification. Say we want to add a “motif #1” decorator to all slides that are Dir = D and a “motif #2” decorator to all the slides that are Type = B and Int = 4. This might help us to see to what extent this hypothesized motivic classification actually aligns with the melodic context for these slides.

The viability of (2) is a result of the listener’s accuracy or the way in which pitch data is processed by the computer. The latter is not the focus of this paper, but an interesting avenue for continued research on portamento analysis. If a human is listening to and classifying slides from a recording, the “?” should be used in place of guessing or assuming type. Additionally, software to slow down a recording without altering pitch, such as the Amazing Slow Downer, may be employed to help hear where finger changes occur and where slides start.

Portamento does not exist in musical isolation, and it is used along with vibrato, rubato, and bowing techniques that produce different tone colors to create a cohesive musical interpretation of a passage. To ensure (3), we should retain time data in a flexible data structure. Even if we treat time rigidly, i.e., making the false assumption that each note starts precisely as notated in the score, we should allow these time markers to be moveable to more accurately reflect a specific performance if other musical parameters are added onto the analysis in the future.

If analysis is being done by hand, portamento classification notation can be included where it occurs in time in a chart below the notated music. If analysis is
being done with a computer’s assistance, one array can contain time markers linked to the start of each written note in the piece. A second array contains portamento classification notation linked to the start and end time markers of the slide. Since my analysis in this paper is done by hand, I will be using the former system, presenting my data on synoptic charts.

When comparing multiple recordings, the next step is to identify all the vertical points in the music where at least one recording uses portamento. From these, we can define a few useful metrics:

**Overlap:**

1) Vertically calculate how many violinists slide on a specific interval, divided by the total number of recordings analyzed, to find the overlap ratio ($O_p$). Suppose 3 out of 10 violinists slide on a specific interval. Then those three violinists would attach a 0.3 overlap ratio to their slide on that interval.

2) For each violinist, horizontally calculate the average of the overlap ratios for all their slides. The average overlap ratio ranges in value from $1/(\text{number of violinists})$ to 1.0. A lower number for a particular violinist indicates that, on average, their slides were less commonly also used by other violinists.

**Dependency:**

1) Calculate the conditional probability of whether sliding in one spot will also result in sliding in a second spot, or conversely, whether excluding a specific slide also

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Lee, *Violin Portamento* defines Target Intervals (TIs) that are analyzed in a similar way to my approach, using sonograph data to determine slide type and selected other parameters, though without defining a system to present the data and hand-selecting specific spots in the music that are studied in relative musical isolation.
precludes sliding in a second spot. This is useful for identifying chained (consecutive) slides.

2) Calculate the conditional probability of whether two slides are mutually exclusive, that is to say, whether sliding on interval A precludes sliding on interval B and sliding on interval B precludes sliding on interval A. This is useful for analyzing violinists’ choices of a particular slide within a possible chain of slides.

3) Observe motivic dependencies. How does a violinist create consistency or variation in similar or repeated melodic passages through their use of portamento?

**Type Correlation:**

1) To be used when data about specific duration, motivic repetition, etc. is available. For a specific interval where most violinists slide, calculate the correlation between slide type and some other factor. For instance, does B-portamento correlate to longer slides than L- or S-portamento?

2) Similar to Type Correlation 1, but instead of vertically looking at specific intervals, calculate universally and horizontally for each violinist.

These three metrics are just examples of possible derived calculations to extract contextual information about portamento use. They may be used in combination with each other, and they should always be interpreted in context of the other elements of musical interpretation used by a violinist. The frequency of slides alone does not dictate the importance placed on any individual slide, and some of the most Romantic interpreters use slides more sparingly in some passages to maximize their effect in later passages.
Chapter 3: Case Studies

*Jacob Gegna and the “Choz – Jewish Melody”*

**Background**

Violinist Jacob Gegna was born in Poltava or Kiev in the Ukraine on December 17, 1883 to a prominent family of klezmorim. Newspaper articles reveal that he went by the name Jascha Gegner in the Ukraine, changed to Jacob Gegna upon moving to New York, and finally to Jascha Gegna when he moved out to Los Angeles. For the sake of clarity, I will refer to him consistently as Gegna, even though his name is listed differently on the various recordings we will discuss. Jacob Gegna’s brother, a cellist, underwent similar name shifts among combinations of Moshe/Max/Mischa Gegna/Gegner.

Gegna was “an exponent of the school of his own master, Kolokovsky, the great Russian virtuoso and teacher, who mastered his art by the sheer force of his intellect rather than by the attainments of the trickster.” A New York Times review of Gegna’s supposed New York debut in Aeolian Hall from 1918 describes Gegna as “player of mature and authoritative style” and “the latest, so it was said, of the many

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34 Joel Rubin and Michael Aylward, liner notes, *Chekhov’s Band - Eastern European Klezmer music from the EMI archives 1908-1913* (Renair Records, 2015). The information compiled in the Joel Rubin’s liner notes for *Chekhov’s Band* provide a previously unknown timeline of Jacob Gegna’s life that proved infinitely useful in writing this section. The remaining newspaper excerpts in this section have not, to my knowledge, been included in any published works.

pupils of Leopold Auer.”36 Gegna may have also worked as Auer’s workshop assistant in Leipzig, though Auer’s student lists seem not to confirm either of these claims.37 Additionally, since Gegna moved to New York in 1914, it is quite unlikely that this 1918 concert was actually his “New York debut”, though it is possible it was his debut performing at such a major concert hall.38

**Figure 4:** Portrait of Jacob Gegna. “Teacher May Diagnose, Advise, But Not Force, Says Jacob Gegna.” *Musical America*, April 3, 1920: 21.

As perhaps the only klezmer violinist to record both in Eastern Europe and America, Gegna is of particular historical and musical interest.39 Representing a generation of Eastern European Jewish violinists who rose out of lower class families

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38 Rubin, liner notes.
39 Ibid.
of klezmorim to study in conservatories and go on to careers in classical music in Western Europe or America, Gegna remained more rooted in his Jewish musical roots, even though there is no evidence that he ever performed as a “klezmer” in the United States, and the four recordings we have of his playing are all of Jewish pieces. Two of these recordings, re-released in 2003 on the “Jewish Violinists – vol 2” cassette tape, are his 1921 American recordings of “Taksim” and “A Tfileh Fun Mendel Beilis”. The second set of recordings, recently released in 2015 on the CD “Chekhov’s Band – Eastern European Klezmer music from the EMI archives”, includes Gegna’s 1913 Poltova recordings of “Fantasy on a Jewish Melody” and “Choz – Jewish Melody”. There is evidence of ten more Gegna recordings from Poltova, but according to Joel Rubin: “Unfortunately that 78 [the two recordings included on “Chekhov’s Band”] is the only Russian Gegner to have surfaced (I’ve got a copy too), even though Jeff Wollock documented that he made a number of them. There are other tantalizing sounding discs in the EMI collection and I hope this is just the first of a number of reissues, but who knows?”

Each of these four Gegna recordings is a priceless snapshot of Eastern European klezmer styles. “Fantasy on a Jewish Melody” and “Taksim” are recordings of the same piece, possibly Gegna’s own composition, and the only known recordings of a klezmer taksim (also spelled taqsim) – based on a Turkish form of instrumental improvisation. “A Tfileh Fun Mendel Beilis”, Gegna’s other New York recording, is a musical prayer in memory of the 1913 trial of Mendel Beilis in Kiev for the

40 Joel Rubin, email correspondence with Mark Slobin, March 25, 2016.
41 Rubin, liner notes.
supposed ritual murder of a Christian boy in 1911, the “last major blood libel trial in Europe” that resulted in many “cartoons about it and more than one song [written] in honor of Beilis.”\footnote{“The Beilis Trial and Popular Culture,” accessed April 7, 2016, \url{https://www.yivo.org/the-beilis-trial-and-popular-culture}.} Gegna’s other recording, “Choz – Jewish Melody”, will be the primary focus of study later in this section. But first, we will look at the other side of Gegna’s musical career, his teaching, as an example of one specific violinist’s approach to fostering musical individuality in students.

A 1920 article in Musical America includes what may be the only direct interview with Jacob Gegna. In discussing his personal ideology about violin teaching, Gegna also reveals his approach to individuality in his own playing.

“In bringing out a pupil who makes a sensation upon the concert stage there is an element of luck,” says Jacob Gegna modestly, to the writer last week. “If you get a pupil who has a warm temperament, intelligence and a good ear, you are indeed fortunate. And such a pupil must be permitted to travel his own path. The teacher who knows his business will not force him or subject him to a set of rigid principles that he has established arbitrarily. He must study the individual and guide him, but he must not divert him from the direction in which he is heading.”

“In my opinion much of the ‘cold’ playing that one hears from really talented pupils may be charged to the teacher who has not let nature take her own course. Violinists are divided into two groups, the lyric and the dramatic. It is up to the teacher to make a correct diagnosis of the individual and then to let him run along the line that he seems destined to follow. If I find that the tendency of a pupil is toward the dramatic, I urge him and encourage him to produce dramatic effects. If his bent is toward the lyric, I try to make him produce a warm tone, but not so sentimentally as to be ‘gushy.’ It is a great tragedy when a teacher makes a wrong diagnosis, for many a talent is thus diverted into wrong channels.”

With Mr. Gegna technique is held subordinate to individuality. To be sure, he concentrates the early studies of a pupil upon the essentials of tone-
production and the command of bowing, but it is not long before the pupil is ready for self-expression.\textsuperscript{43}

Gegna clearly values individual expression over technical perfection, indicative of the preference for an idiosyncratic personal style of playing common in the early twentieth century. Acknowledging the fine balance between rigorous technique and natural self-expression, Gegna describes how a student’s early studies establish a strong technical foundation upon which they can then be afforded the freedom to develop either “the lyric or the dramatic” musical direction they might develop. The article continues:

Strange is it that these Gegna pupils are not violin “prodigies.” They \textbf{compel attention through the sheer force of their individuality}. To use a colloquialism “they play their heads off” when they step upon the platform. Freed from technical restraint, they are able to make the bow sweep across the strings to command thrilling, dramatic effects. Maybe Mr. Gegna is lucky to have such talent to direct, and then again, perhaps he has more to do with the final result than he suspects.\textsuperscript{44}

Using the now obsolete colloquialism “they play their heads off”, a possible precursor to “they play their hearts out”, Gegna’s students enthralled their audiences with the “sheer force of their individuality” – but what does this actually mean? More newspaper articles reveal that Gegna’s two most famous students in New York were Sammy Kramar and Gabriel Engel, each representing very different ends of the violinist spectrum age-wise but both formidable individuals.

In spite of the above article’s claim that Gegna’s students were not prodigies, Sammy Kramar was, in fact, exactly that. A review of his Philadelphia debut recital at

\textsuperscript{43} “Teacher May Diagnose,” 21.  
\textsuperscript{44} Ibid.
age seven describes that the audience was expecting to be “amused at an infant prodigy” but instead was “amazed at an artistic prodigy”, as would be fitting of Gegna’s purported teaching style. The article continues:

Sammy Kramar’s technique is extraordinary. His teacher, Jacob Gegna, has, of course, had an extraordinary youngster as raw material, but even that fact does not detract from the wonderful violinistic equipment which he has imparted to his pupil. It is wonderful, especially in the fact that he has been able to confer on a mere child, with mind yet unformed and sense of responsibility, of course, still undeveloped, a command of all the resources of the fiddler’s art utilized with a poise and surety that would be remarkable in a player of ten years, even twenty years, older.

Naturally, they boy’s great strength lay in his technical exposition rather than in the interpretative side of violinistic art. The mellowness and insight that come only from maturity one did not expect, yet his playing even in this particular had feeling and musicianship in its sense of accent, expressive phrasing and rhythm. His concert was far more than a set of exercises impeccably played.45

Although Sammy Kramar did not fully break from the stereotype of a “child prodigy” violinist as excelling in technique and lacking in musicality, reviews of his concerts consistently emphasize the young boy’s musical maturity alongside, and sometimes above, his technical strengths. A reviewer of a Rhode Island recital writes:

Not only does he show astonishing facility with the left hand. His bow arm is equally skillful and there is in his playing an added quality seldom observed in the work of wunder children. It is style. Yes, it is there, and such as it is, it is his own. The boy has well defined musical ideas... With continued good handling this budding genius should within a few years loom large on the

violinistic horizon. His present ability is due to the careful instruction of the well-known New York teacher, Jacob Gegna.\textsuperscript{46}

It seems that the term “individuality” might be equated with “personal style”, and though these concepts are not exclusive to Jewishness, they qualities highly valued by a specific generation of Jewish violinists’ musical aesthetic preferences.

In contrast to Sammy Kramar, Gabriel Engel only first began his serious violin studies after graduating from Columbia at age twenty-two. He was “pronounced absolutely devoid of musical talent” at age twelve, even though he was always musically creative, inventing “his own system of notation, covering pages with a riot of numbers that nobody but himself could decipher” at age eight.\textsuperscript{47} Clearly Engel was a strong-minded individual in more than just his violin playing. A 1920 article on Engel’s early career includes an amusing anecdote further illustrating this:

One little incident in Engel’s college life will remain vividly in the memories of those of us who took “gym” courses with him. As we were putting on our “gym” shirts and trunks for a run around the track we observed a chap take a violin from his locker. He began to tune up and to fiddle the strings. Suddenly he plunged into the wild rhythms of a Gypsy dance, and a few of us gathered about him. Soon there were yells of approval from all sides and Gabriel Engel found himself playing to an audience. An enthusiastic audience it was, too, for in those days it took a good deal to hold us from a game of basketball, a sprint or a swim. Engel played everything in his repertoire, from minuets to concertos. Many in that audience heard him play again last month, but under different circumstances, for Engel was now ready to be listened to critically and judged as a concert artist. It is not overstating to say that he was not found wanting.


\textsuperscript{47} “Gabriel Engel, University Graduate, Represents New Species of Violinist,” \textit{Musical America} (March 6, 1920): 35.
This story draws as a seemingly natural conclusion that Engel’s enthralling playing in the informal gym class setting led to his success in a more formal setting as a soloist, further reinforcing the idea that individuality can in itself draw audiences in. While the gym class audience was engaged through “wild rhythms” along with other less intense or danceable forms, it is doubtful that they would have been equally impressed by just technical excellence.

Figure 5: Newspaper ad placed by Gabriel Engel honoring Jacob Gegna. *Musical America*, February 14, 1920: 50.

Although the newspaper clippings about Engel mention his teacher Gegna less frequently than those for Sammy Kramar, Engel credited fully Gegna for his musical development, writing in Figure 5: “Whatever success has attended me thus far is owning very largely to your patient efforts. I can hope to repay you only by striving more than ever to progress with the aid of the lofty principles of art which you have imparted to me.”
Kramar and Engel were both reviewed very positively as memorable performers early on in their careers, suggesting that Gegna’s efforts to impart the importance of forming one’s one musical ideas were successful. But how does this factor into Gegna’s own playing? To see this, we turn to a close analysis of “Choz”.

**Analysis**

Unlike Gegna’s other three recordings, the “Choz – Jewish Melody” is not his own composition but rather a composition by the famous klezmer virtuoso Pedotser. Choz is an alternate spelling of *khtsos*, referring to a “midnight service” at which observant Jews would say certain prayers on specific days of the year. Gegna’s recording is almost identical to #19a in *Jewish Instrumental Folk Music*, a collection of essays and transcriptions by Moshe Beregovski, a prolific Ukrainian ethnomusicologist who compiled hundreds of Eastern European Jewish tunes in the early twentieth century. While it is known that Pedotser was one of the few klezmorim who could read musical notation and thus also notate his own compositions, there is no direct evidence in the Beregovski volume that this particular notation came from Pedotser directly. Appendix A lists #19 and #19a, both variants of *Khtsos*, as coming from “the manuscript notation of anonymous klezmorim.”

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48 Rubin, liner notes.
The opening rubato sections of the two versions of this piece are nearly identical. I provide the Beregovski manuscript (B.) on the top line and my transcription of the Gegna recording (G.) on the bottom line, along with an analysis of the slides used in the Gegna recording.

**Figure 6:** Opening measures of Beregovski #19a and Jacob Gegna’s “Choz – Jewish Melody” (transcribed by Matthew Stein, March 2016), page 1
I stretched or condensed the relative rhythmic durations of the Gegna to best align with the Beregovski while still staying true to the pitches and general rhythms Gegna plays. Note that the final six bars no longer align, but I include this nonetheless to show where and how the two versions diverge.
Whereas the Beregovski manuscript continues on with an extended rubato section, the final measures of this transcription are Gegna’s cadence before he moves on to a faster dance section. These dance sections are similar in both versions, though Gegna’s includes faster technical fireworks at the end. I include only the beginning section of the piece because this is most interesting for studying Gegna’s use of portamento.

Perhaps the most notable aspect of this piece is its use of *scordatura*, retuning the G string up to an A, the A string down to an F, and the E string up to an F, creating an octave between the top two strings. An extra notch traditionally would be carved in the nut to allow the A string to be moved closer to the E string so both strings may be played simultaneously. Called *shpiln oyf di tsvey strunes*, or “playing on the two strings”, this technique allows violinists to play fast melodic passages, *krekhtsn*, and other ornamentation easily in octaves. In the transcribed passage, Gegna stays on just the lower two strings. Measures 1-8 are played on the G string (which is retuned to an A), measures 9-17 are played mostly on the D string with the retuned A as a double stop drone, and measures 18-23 are played again on single strings. Both lines are notated at actual pitch, even though the Beregovski manuscript originally notates the piece at fingered pitch, a whole step below actual pitch, allowing the violinist to forget about the retuning and read the notes without having to transpose.

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*50* Beregovski, 55.
I notated almost all of Gegna’s portamento, excluding only same finger slides on half steps in fast chromatic passages. Of these 22 slides, four are on descending fourths and ten are on descending major seconds. Only five slides are on ascending intervals, though there are a few other very slight upwards slides not marked that are purely technical, relative even to Gegna’s “not emphasized” musical slides. It is not by accident that so many of these slides happen to be _D/M2. Eight of the ten are on the same interval of G to F, a figure that continues to repeat in similar motivic context just after the opening D minor arpeggio in most phrases. Although this is a prime example of motivic dependency, it also demonstrates how little information this provides us without other musical context – data on rubato and vibrato - that would more fully characterize motivic repetition and variation.

This analysis of the one and only recording we have of Khtsos sheds light both on how somebody familiar with the musical idiom might interpret Beregovski’s manuscript of the piece – elaborating melodic lines, speeding through some passages while lingering on others, consistently vocalizing the movement between notes – as well as on Gegna’s personal approaches to phrasing and musical interpretation. Building upon this type of horizontal analysis of a single melodic line, we move to a more multi-dimensional vertical analysis in our second case study, looking at multiple recordings of Bloch’s “Nigun”.

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**Ernest Bloch – “Nigun” from Baal Shem Suite**

**Background**

Ernest Bloch (1880-1959) was a Swiss-born American composer who devoted much of his early career to writing Jewish art music for a wide range of ensembles. These include the *Baal Shem* Suite for violin, *Schelomo* for cello and orchestra, and *From Jewish Life* for cello. A number of other Bloch works have distinctly Jewish titles, but many others are completely secular (*America: An Epic Rhapsody*, Violin Sonata No. 1, etc.) In fact, Bloch actively tried to escape the confining label of “Jewish composer” much of his career. Jewish music scholar Albert Weisser argues against the idea of a strict binary between Bloch’s Jewish and secular works:

> For a long time now it has been both fashionable and fatuous to write of Bloch mainly as something of a schizoid musical personality that could be strictly divided between the “Jewish Bloch” and the “universal Bloch.” This is a vast simplification. In truth the Bloch that matters—and that will remain—is to be found in works that are explicitly Jewish and those abstract works in which the Jewish musical elements are not so easily recognizable, but are redefined, reordered, and brought to what are, for them, new formations.

> ...As much as he might have tried, Bloch could never totally lose his Jewish musical accent…. He undoubtedly wrote best, with individuality and pungency, when he drew from the true vein of his creative source, his Jewish heritage and its emotive experiences—whatever his contradictions, evasions, resentments, and estrangements. And it could very well be that his most cogent works derive their force and impress from the stress induced by his Jewishness and his ambivalent relationship to it.

> ...However retrogressive and démodé his example may appear in contemporary progressive music circles, it is in Jewish music, and particularly

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American Jewish music, that Bloch is still a major figure and is likely to remain so: to esteem, to praise, to emulate—but also to parody, to run at full tilt, to deflate, to topple, and to supersede. But ignore him at your risk. He is among the best Jewish music has ever had.52

The “vast simplification” Weisser describes is similarly true when thinking about Jewish violinists’ playing as split between being Jewish and universal. To have a deep personal connection to the stylistic influences of certain music, even if that is just a small canon of Jewish art music, is to intentionally or subconsciously allow that style to influence or be vacant from the performance other musics. Weisser’s next two paragraphs are equally telling about Jewish violin performance. Bloch retained a “Jewish musical accent” in composition, and many Jewish violinists retain a “Jewish accent” in performance, unique to their individual style. Finally, Weisser warns of how easy it might be to parody Bloch’s music. I suggest taking this one step further—making sure not to parody the older performances of Bloch’s music. While it may be tempting for modern violinists to over-stylize their interpretations of Bloch’s and other Jewish composers’ music just from the printed notes and implied cultural context, it is even riskier to attempt to copy the style of older generations of violinists, or even of contemporary violinists. By imitating other violinists’ individualistic stylistic choices, one runs the risk of inhibiting their ability to form their own individual interpretation of the piece, or even worse, to overexaggerate particular expressive elements and turn the piece not just into a parody of itself but also a caricature of other violinists.

Analysis

Written in Cleveland in 1923, the *Baal Shem* Suite (Three Pictures of Chassidic Life) for violin and piano has three movements: Vidui, Nigun, and Simchas Torah. The “Nigun” is one of Bloch’s most commonly played works for violin and is still frequently performed in recitals and competitions by both Jewish and non-Jewish violinists. “Nigun” is one of the only snapshots into the Jewish art music tradition for many modern violin students who have largely moved away from all but the most famous character pieces that proliferated throughout much of the last century.53

The twelve recordings of “Nigun” I selected to analyze range from 1947 to 2014, covering each decade in that span other than the 80s and 90s. I included many of the “precedent” interpretations of the piece, those of Kogan, Szigeti, Milstein, Elman, and Heifetz, as well as a representative selection of modern violinists. All the violinists are Jewish except for Friedemann Eichhorn and Katharine Gowers. The ages of the performers at the time of the recording also vary greatly, ranging from Itzhak Perlman’s recording at age 20 to Heifetz’s at 71 and Ida Haendel’s at 81. I excluded recordings that use two or fewer slides, with the exception of Milstein.

I created Tables 2, 3, and 4 by analyzing these twelve recordings by ear and using the online Tune Transcriber tool.54 They cover the opening passages of the “Nigun”, skipping three cadenza-like measures between the second and third tables. This section has the fewer double stops than later sections of the piece, making the portamento clearest to classify and analyze.

53 Walden, *Sounding Authentic*.
54 Available from http://www.tunetranscriber.com
Table 1: Selected recordings of Ernest Bloch’s “Nigun” from *Baal Shem*.

<table>
<thead>
<tr>
<th>Violinist / Pianist</th>
<th>Year</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leonid Kogan / Vladimir Yampolski</td>
<td>1947</td>
<td>Leonid Kogan Edition (Historic Russian Archives)</td>
</tr>
<tr>
<td>Nathan Milstein / Carlo Bussotti</td>
<td>1954</td>
<td>Nathan Milstein – A Milstein Recital</td>
</tr>
<tr>
<td>Mischa Elman / Joseph Seiger</td>
<td>1962</td>
<td>Hebraic &amp; Russian Melodies</td>
</tr>
<tr>
<td>Itzhak Perlman / David Garvey</td>
<td>1965</td>
<td>Perlman rediscovered (released 2004)</td>
</tr>
<tr>
<td>Jascha Heifetz / Brooks Smith</td>
<td>1972</td>
<td>Heifetz: The Final Recital</td>
</tr>
<tr>
<td>Joshua Bell / Samuel Sanders</td>
<td>2005</td>
<td>Presenting Joshua Bell / Kreisler</td>
</tr>
<tr>
<td>Vadim Gluzman / Angela Yoffe</td>
<td>2008</td>
<td>Fireworks</td>
</tr>
<tr>
<td>Ida Haendel / Misha Dacic</td>
<td>2009</td>
<td>[<a href="https://www.youtube.com/watch?v=1ICwjz">https://www.youtube.com/watch?v=1ICwjz</a> d3mT4](<a href="https://www.youtube.com/watch?v=1ICwjz">https://www.youtube.com/watch?v=1ICwjz</a> d3mT4)</td>
</tr>
<tr>
<td>Friedemann Eichhorn / Andreas Frölich</td>
<td>2012</td>
<td>Souvenir d’Amerique</td>
</tr>
<tr>
<td>Gil Shaham / Orli Shaham</td>
<td>2013</td>
<td>Nigunim: Hebrew Melodies</td>
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Table 2: Page 1 of portamento analysis in “Nigun”.

<table>
<thead>
<tr>
<th>Kogan</th>
<th>Milstein</th>
<th>Elman</th>
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<th>Szigeti</th>
<th>Heifetz</th>
<th>Bell</th>
<th>Gluzman</th>
<th>Haendel</th>
<th>Eichhorn</th>
<th>Shaham</th>
<th>Gowers</th>
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Table 3: Page 2 of portamento analysis in “Nigun”.

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<tr>
<th></th>
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<th>Szigeti</th>
<th>Heifetz</th>
<th>Bell</th>
<th>Gluzman</th>
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Table 4: Page 3 of portamento analysis in “Nigun”.

<table>
<thead>
<tr>
<th>Kogan</th>
<th>Milstein</th>
<th>Elman</th>
<th>Perlman</th>
<th>Szigeti</th>
<th>Heifetz</th>
<th>Bell</th>
<th>Gluzman</th>
<th>Haendel</th>
<th>Eichhorn</th>
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<th>Gowers</th>
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</table>

52
Table 5 shows the calculated overlap ratios for each recording, relative to these particular twelve recordings. The individual ratios for each violinist are presented in the order of the slides that violinist uses. Elman has the lowest average \( O_p \) value of 0.4375, Eichhorn has the second lowest of 0.4479, and Milstein has the highest of 0.75. Kogan, Elman, and Eichhorn all use eight slides.

<table>
<thead>
<tr>
<th>Violinist</th>
<th>Individual Overlap Ratios</th>
<th># Slides</th>
<th>Avg. ( O_p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kogan</td>
<td>0.667, 0.583, 0.5, 0.083, 0.5, 0.25, 0.5, 0.917</td>
<td>8</td>
<td>0.5</td>
</tr>
<tr>
<td>Milstein</td>
<td>0.583, 0.917</td>
<td>2</td>
<td>0.75</td>
</tr>
<tr>
<td>Elman</td>
<td>0.667, 0.583, 0.417, 0.25, 0.5, 0.917, 0.083, 0.083</td>
<td>8</td>
<td>0.4375</td>
</tr>
<tr>
<td>Perlman</td>
<td>0.667, 0.583, 0.5, 0.083, 0.917, 0.083</td>
<td>6</td>
<td>0.472</td>
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<tr>
<td>Szigeti</td>
<td>0.583, 0.5, 0.5</td>
<td>3</td>
<td>0.528</td>
</tr>
<tr>
<td>Heifetz</td>
<td>0.167, 0.417, 0.917</td>
<td>3</td>
<td>0.5003</td>
</tr>
<tr>
<td>Bell</td>
<td>0.667, 0.5, 0.5, 0.5, 0.917</td>
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<td>0.617</td>
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<tr>
<td>Gluzman</td>
<td>0.667, 0.583, 0.5, 0.417, 0.5, 0.917</td>
<td>6</td>
<td>0.597</td>
</tr>
<tr>
<td>Haendel</td>
<td>0.667, 0.167, 0.417, 0.917</td>
<td>4</td>
<td>0.542</td>
</tr>
<tr>
<td>Eichhorn</td>
<td>0.667, 0.083, 0.583, 0.5, 0.5, 0.25, 0.917, 0.083</td>
<td>8</td>
<td>0.4479</td>
</tr>
<tr>
<td>Shaham</td>
<td>0.083, 0.417, 0.5, 0.917</td>
<td>4</td>
<td>0.4793</td>
</tr>
<tr>
<td>Gowers</td>
<td>0.667, 0.5, 0.5, 0.5, 0.917</td>
<td>5</td>
<td>0.6168</td>
</tr>
</tbody>
</table>

**Table 5:** Overlap ratios based on the portamento data in Tables 2, 3, and 4.

Elman includes slides at the end of measure 20 and in measure 22 that nobody else uses, most directly resulting in his low \( O_p \) value. These two slides are an example of a motivic dependency – the first slide establishes a particular way to play this four-note figure, sliding down from the C to the B flat, which is again used as variation on the last repetition of the figure.
The slide pairs at the end of measure 6/beginning of measure 7 and at the end of measure 10/beginning of measure 11 are instances of Dependency 2. For the first pair of slides, 9 violinists slide on either one of the slides but not both and the remaining 3 violinists slide on neither. For the second pair, 9 violinists slide on either one of the slides but not both, 1 violinist slides on both, 1 violinist articulates a parallel musical idea with a break between the B flat and G instead of a slide, and 1 violinist slides on neither. Both pairs of slides function as sorts of stylistic toggles: based on the structure of the music, 75% of the violinists analyzed make a choice between sliding on just one of two possible adjacent intervals.

The ‘ markings on the synoptic charts indicate a space between two notes, executed with a stop or lifting of the bow – an intentional choice to ignore slurs. This might be considered the opposite of portamento in that it creates a complete separation between two notes rather than bridging the space between their pitches, yet every instance of such a break is on an interval where at least three other violinists slide.

The slides in the analyzed passages are almost all same finger slides, probably because most of these slides are on small intervals – other than the opening ascending fourth, all slides are on a third or smaller. The Type Correlation measure described in the prior chapter thus would not produce very interesting results with this fairly homogenous data set, though it is interesting to note this high correlation between same finger slides and smaller intervals. This is likely more of a technical than a stylistic choice since B- and L-portamento both need space for two different fingers,
whereas it is much easier technically to slide the same finger between two close notes. However, if adjacent fingers are used for B- or L-portamento on a smaller interval, the characteristic discontinuity in pitch that is more audible on larger intervals may be masked, making it sound like same finger portamento unless a change in vibrato or timbre from the different fingers used is apparent.

I excluded the duration parameter for most of the slides, marking it only where it is useful for differentiating between contrasting musical interpretations, such as in measure 13 where, coming from an F natural played with first finger on the E string, Kogan and Eichhorn both slide up to the E natural on the A string, likely with their second finger. Kogan’s not emphasized slide is quick and subtle, whereas Eichhorn’s is a dramatic gesture emphasizing the timbral difference from the string change. Arbitrarily defining this binary in more general cases runs into the same issue that arose with motivic dependencies in the Gegna analysis, that without more precise time information, it is near impossible to capture the variation and development of larger phrases.

The Gegna and Bloch case studies each approach the intersectionality of Jewish and art musics from different angles. Gegna provides a glimpse into a long-lost world of Eastern European klezmer through the lens of a more formal musical pedigree than most klezmorim. Looking at one line of notation and one recording, we can begin to see just how differently a tune like this might be performed and ornamented from the notes printed on the page. Bloch shows us comparative interpretations of a distinctly Jewish work written by a secular Jewish American
composer. By presenting a methodical classification of the portamento in these recordings, we obtain a well-ordered analysis of one particular parameter of the music that, in later work, can be further adapted to highlight the overlaps and dissimilarities between recordings. By further developing the tools for both horizontal and vertical analysis of portamento, we can continue to establish more advanced computational techniques that allow us to more easily compare varying musical approaches.
Chapter 4: Conclusion

Where one violinist chooses to use portamento, another violinist finds it excessive. Where one generation of violinists decides not to slide, the prior generation thought it a musical necessity. This pentimento of portamento – constantly painting over particular parts of musical interpretation – is only a small section of the full painting, but it is absolutely necessary for seeing the larger picture. There is, of course, no such thing as universal Jewish portamento. Violinists in Heifetz’s generation, many of whom happened to be Jewish, often included slides as an integral part of their musical stylistic vocabulary, but as a well integrated component that was tastefully used in accordance with countless other factors – instrument being played, type of strings, bow weight, dynamic contour, vibrato, rubato, tempo, other musicians in an ensemble, and so on. Milstein, among others, preferred a cleaner style of shifting, though not fully devoid of portamento, that was equally expressive in many other respects. Although it is possible to theorize that Jewish violinists were perhaps influenced by Jewish cantorial or folk music in their approach to lyrical playing, it is more productive to acknowledge and discuss their approaches to self-expression that allowed for such emotive performance. The generational aesthetic was not to have a uniform musical aesthetic, placing individuality above, though not at the expense of, brilliant technique. In its diversity, this approach to musical stylistic transmission, of encouraging students to form natural and idiosyncratic musical interpretations, seems to me to be quite uniformly distinguishable. I can immediately recognize the “Heifetz sound” or the “Elman tone” after just a few seconds of a recording, and by being able
to identify a violinist by their distinct musical ideas and patterns, I can also guess that they are from the era where this type of playing was prevalent.

Chapters 2 and 3 of this paper define and provide proof of concept of a formal, atomic language for portamento classification and analysis. On its own, this approach might lead to stunted analysis or to false conclusions, but it has the benefit of succinctly revealing patterns of portamento use, independent from musical context, that would be less visible when analyzing all musical parameters in a linked complex network. Keeping these patterns in mind when reconsidering portamento as just one aspect of individual performance practice, we can use this methodology as a foundation for further integrated study. Building onto this system, the next step would be to incorporate more comprehensive motivic analysis, acknowledging how a particular violinist is consistent or creates variation in the shaping and juxtaposition of larger phrases. Additionally, the tedious and often unreliable process of identifying and classifying portamento by hand should be automated by a computer, thus making it more feasible to analyze larger data sets. Afterwards, one might begin to introduce machine learning models to parse and identify musical phrases, utilizing theory similar to natural language processing.

“Jewish” is inherently a convoluted adjective, with countless religious, historical, and cultural connotations. The concept of “Jewish music” has been contested for over a century, but continued microanalysis, such as that presented in this paper, has potential to cut through the fog and shed light on the meaning of “Jewishness” as it relates to musical expression.
Bibliography


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“Kramar in Providence: Seven-Year-Old Violinist Astonishes the Rhode Islanders.”


