That Driving Sound: Use of Tempo in Traditional Cape Breton Fiddle Performance*

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Abstract: In Cape Breton traditional dance fiddling, the intimate rhythmic relationship between fiddle and feet yields smooth transitions from one tune type to another in order to facilitate the steps. Through analysis of 17 recorded performances of march, strathspey, and reel sets, I measure minute tempo fluctuations as they correspond to the concert presentation of a medley of tunes to explain the mechanics and roots of the large-scale continuous tempo acceleration. This acceleration comes out of the music's relationship to dance, shaping the performance and helping to define the sound of Cape Breton fiddling.

Résumé : Dans les airs traditionnels de danse joués au violon à Cap-Breton, la relation rythmique intime entre le violon et les pieds permet des transitions fluides d'un type d'air à l'autre afin de faciliter les pas de danse. En analysant 17 enregistrements d'airs de marche, de strathspeys et de reels, je mesure jusqu'aux plus petites fluctuations de tempo correspondant à l'exécution en concert d'un pot-pourri de chansons pour expliquer la mécanique et les racines de l'accélération continue et à grande échelle du rythme. Cette accélération provient de la relation de la musique à la danse, qui modèle l'exécution et qui contribue à définir le son du violon de Cap-Breton.

I was first introduced to Cape Breton fiddling by my wife, who grew up competing as a Scottish Highland dancer in the Southeastern United States. Scots immigrated to North America in large numbers prior to and during the Highland Clearances of the 19th century. Today Scottish heritage and diaspora are performed at Highland games across the region, and Scottish heritage and identity are maintained by people like my wife, who practice traditional dance and music. Cape Breton Island, Nova Scotia is a unique place with an especially high concentration of Scottish culture and heritage. Scottish immigrants brought their fiddle traditions to Cape Breton where they have been influenced by, among others, Acadian and Mi'kmaq musicians. They have also evolved into a thriving music scene with newly composed tunes as important to the practice as the old tunes. One can hear the Scottish roots and foundations readily, but it is clear that this is a unique music crafted by Cape Breton's history and context.

Upon being introduced to Cape Breton fiddling, I was immediately hooked by the energetic, complex music and wanted to learn and hear more. So, in 2009 I travelled to Cape Breton to study fiddling at the Gaelic College. As a novice fiddler, I took beginning fiddling classes with Glenn Graham, Sandy MacIntyre, and Dara Smith. In the evenings, I travelled around the Island to dances and concerts soaking up as much music as possible. In the years since, I have repeatedly travelled back to Cape Breton and have continued listening and studying the style voraciously.

My main identity as a musician is as a composer of concert music; as such, I instinctively seek to understand what makes a given musical genre, style, or technique compelling. There are many aspects of Cape Breton music that fascinate me, but I am especially interested in three areas: the music's intense rhythmic energy and propulsion, the intimate relationship that Cape Breton fiddle and piano music has with step-dancing, and the long medleys that Cape Breton fiddlers and piano players weave so deftly. One such medley is the common progression of march, strathspey, and reel, which is a medley of varying tune-types each having its own techniques, rhythmic profile, and tempo. After listening to many medleys, I began trying to understand *how* the musicians weave these tunes together to create a compelling long structure. I also began to notice a careful use of tempo in creating these larger structures. This article is my attempt to come to a better understanding of Cape Breton fiddling through measuring, analyzing, and interpreting the use of tempo in these long-form march, strathspey, reel medleys.

In the last decade, analysis of world music (as opposed to Western art music) has flourished into a thriving area of study. The *Analytical Approaches to World Music Journal* began in 2011 on the heels of a two-volume set of world music analysis (Tenzer 2006; Tenzer and Roeder 2011). In this article, I bring attention to how tempo is used in Cape Breton fiddle and piano music, and offer a possible interpretation of why this practice exists. Like Tenzer, I aim to "inscribe and analyze musical structure to journey attentively into it, to experience each performance/piece/sound-world as a singular, textured, and refined event; an utterance shaped ... from individual creativity and the collective resourcefulness of the generations" (Tenzer 2006: 4). I hope my approach to studying tempo could be used in later investigations of other fiddle music traditions, especially the closely related Celtic or Gaelic fiddle traditions.

Cape Breton fiddle is often described as being distinct from other traditions by its driving, energetic, and lively sound. "As a medley of tunes

progresses through a 'Scottish medley' sequence of march, slow strathspey, 'dance' strathspey and reel, there occurs a marked sensation of growing anticipation and excitement", writes Allister MacGillivray, a Cape Breton musician, author, and historian (1997: 6). MacGillivray describes how "[d]uring the repeat of the second turn of the last strathspey, which precedes 'breaking into' the reel, the beat often accelerates so that the final transition into reel tempo is quite smooth" (1997: 6). Noting that the energy increases during the March-Strathpey-Reel [MSR] medley, he points out the *accelerando* that occurs at the crucial moment of transition from strathspey to reel. There is another *accelerando* that occurs during the MSR medley that MacGillivray does not explicitly identify: a tempo increase that occurs gradually over the entire medley of tunes that creates an over-arching structure that propels the listener from start to finish.

Fiddlers are well aware of tempo manipulation, yet do not always possess the technical language to reflect on the complex transition, primarily using ambiguous words like "drive" to describe tempo. In fiddle scholarship, tempo has not been thoroughly addressed, especially not in considering entire medleys. In their seminal work titled *Traditional Celtic Violin Music of Cape Breton* (1996), authors Dunlay and Greenberg provide detailed descriptive transcriptions that clearly display the complex bowing and ornamentation that are fundamental to Cape Breton's unique fiddle sound. Dunlay and Greenberg point out tempo fluctuations by noting a beginning and ending tempo for the tunes they transcribe, but they do not explain these changes in detail. Jessica Herdman and Jeffrey James Hennessy touch on tempo briefly when discussing beats per minute ranges of various tune types (Herdman 2008: 101; Hennessy 2008: 255).

In this article, by charting tempo fluctuation in 16 recordings of MSR medleys performed by 12 different Cape Breton fiddlers (and one strathspeyreel recording without a march), and by building on Hennessy's analysis of the strathspey-reel transition, I examine how Cape Breton fiddlers perform *accelerandi* between tune types and across an entire medley, while answering the following questions: why do fiddlers perform these tempo increases? What are the extra-musical influences that shape these performance traditions?

Through my own fieldwork, I have found that Cape Bretoners cite three defining characteristics of their music that stem from their deep cultural connections to Scotland: the Gaelic language, piping, and step-dancing. I look closely at the influence of step-dancing, as it is registered in the approach to rhythm, pacing, structure, and tempo, to explain the *accelerandi*. I have limited my study to 15 Cape Breton fiddle MSR commercial recordings recorded between 1997 and 2009, taken from my own collection of albums.¹ The fiddlers come from different parts of Cape Breton Island and are different ages and genders. A future study could investigate how fiddlers' use of tempo fluctuation within medleys has changed throughout the recorded history of Cape Breton fiddling. Some older players feel that tempos are increasing among younger generations, while others have found no significant increase in tempo over time.²

The fiddle is accompanied by a piano and sometimes guitar, the two main support instruments in Cape Breton, but I have chosen to focus on the fiddle in describing the performances. Further study might consider how the piano contributes to tempo shifts. This article offers a first step in understanding how fiddlers manipulate tempo, and could be expanded into a larger investigation comparing contemporary Cape Breton fiddlers with historical fiddle recordings, field recordings with studio recordings, traditional instrumentation (i.e., fiddle and piano) with contemporary instrument additions (i.e., recordings that add rhythm sections), and Cape Breton practices with other regional fiddle styles.

"Drive"

Practitioners and well-informed Cape Breton listeners use words such as "timing," "lift," and "drive" to describe aspects of rhythmic feel and tempo shifts. Herdman notes that "these ideas, while clearly meaningful, are challenging to conceptualize" (2008: 94-99). In the liner notes to his 2005 release titled Drive, fiddler Glenn Graham remarks that the word can mean all of the following: "to push or propel onward with force ... to provide the motive power for ... to move along rapidly ... a strong motivating power or stimulus." However, "drive" is frequently used in various contexts in Cape Breton, making it confusing to parse when tempo itself is being discussed. On a website created by a listener and fan of the music with reviews of various albums, Jim Scarff writes of sisters Dawn and Margie Beaton's 2008 release A Taste of Gaelic, "there [sic] playing should appeal to traditional dancers with its steady rythyms [sic] and plenty of drive" (http://www.sfcelticmusic.com/ Capebret/cbfiddlr.htm). The author implies "drive" is a characteristic that aids in step-dancing and is synonymous with evenness. This definition contrasts Graham's implied definition of tempo increase.

In step dance fiddling, tempo change occurs solely at the moment of transition from strathspey to reel, leaving the other sections steady in tempo for the dancer's benefit. Each tune type is affiliated with dance steps that fit with the tune type's rhythmic profile and tempo range. In the case of the strathspey, the steps largely follow quarter-note accents, resulting in the dancer's body bouncing up and down in quarter-note rhythm while doing more intricate footwork. The reel, on the other hand, is more focused around the half note. Because of these physical restraints, there exists a relatively narrow tempo range that is suitable for each type of dance/tune.³ The transitional tempo change is necessary when playing with a dancer in order to transition smoothly to the new tune type with its distinct tempo.

"Listening to" fiddlers and "dance" fiddlers

There are two primary types of traditional dancing practiced in Cape Breton Scottish communities: step-dancing, which is a solo form, and social dancing, which consists of square sets inherited from the European social dance tradition and is a newer (at least more recent than step-dancing) addition to the traditions of Cape Breton (Sparling 2014: 192-197). In his book *Cape Breton Fiddle: Making and Maintaining Tradition*, Glenn Graham notes the difference between "listening to," or concert, fiddlers and "dance" fiddlers, and explains that the two kinds of settings require different skill sets (2006: 123-125). Although many fiddlers play in both contexts, today, they focus their playing on the specific attributes necessary for either the dance hall or concert settings. But even when playing for listening rather than for dancing, fiddlers always stress the importance of dance on Cape Breton fiddling.

The concert—or "listening to"—fiddler specializes in the performance of intricate ornamentation, innovative medley construction, and a large array of tune types not usually found in the dance setting such as marches, airs, and the occasional hornpipe or waltz. In a small venue like the Red Shoe Pub in Mabou, there isn't much room to dance and the audience concentrates on listening, allowing the musicians to play a wider variety of tune types. At the same time, it is not uncommon to see step dancers perform with musicians in concert or pub contexts. One fiddler and one piano player is customary, and often the musicians play both instruments, allowing for a trade at some point during the performance.

Specific guidelines exist for the sequencing of tunes. Typically, jigs, which are in 6/8, are played in medleys on their own. Airs, laments, and other slow songs come before marches, which in turn come before strathspeys. The fastest tunes—hornpipes, clogs, and reels—are performed last. A fiddler would not start with a reel and move on to a march because this would undermine the intensification of tempo but, within the set, some can be eliminated. For example, fiddlers could play a march and then proceed straight into reels, eliminating the strathspey. Today, fiddlers are experimenting with nontraditional tune progressions, which push the tradition in exciting directions.⁴ Be that as it may, the march-strathspey-reel is still frequently heard in the concert setting. These three tune types, and their progression from one to the other, are also deeply rooted in Scottish traditions, and are heard all over the world in Highland bagpipe performances and competitions.

An expert dance fiddler knows thousands of tunes. The dance fiddler specializes in reels and jigs, the two primary square dance tune types, and has a steady tempo that allows for dancing at just the right pace. Dance fiddlers must maintain a consistent tempo throughout the medley so they do not overwork the dancers. In the dance hall, precise and minute ornamentation and a flashy playing style are less important than maintaining high energy, a loud volume, and accurate phrasing throughout the medleys of reels and jigs. The dance fiddler has the stamina that allows him or her to play for hours on end with only a few short breaks between square sets.

Dances usually last from around 10 p.m. to 1 a.m. in community halls in Inverness County; an example is the well-known weekly dance at Brook Village. At these dances, fiddlers will alternate medleys of either jigs or reels to accompany square sets lasting 15 to 20 minutes each. Usually one fiddler and one piano player sit on a stage just above a large, full dance floor. If two fiddlers play, they are likely from the same family (for example Dawn and Margie Beaton or Kinnon and Andrea Beaton) and will play in a complementary manner because they have learned the exact same tune versions, ornamentation, and (as I would argue) tempos. In fact, before electronic amplification became standard, fiddlers would often play in pairs to strengthen their sound when playing for large dances or when performing outdoors (Graham 2006: 127). In other square dance traditions, the dancers walk through the figures before dancing to music, and/or a caller provides instructions during the dance, but in Cape Breton, there aren't typically callers and the dancers do not typically have a chance to walk through a set before dancing it. A unique aspect of Cape Breton square sets is that dancers have incorporated step-dancing into some figures, especially in the third figure of the West Mabou set, increasing the energy and creating a thunderous sound on the wooden floors.

Toward the end of a dance and between sets, the fiddlers start to play strathspeys, signaling a solo step-dancing showcase. For a few brief but exciting minutes, the fiddler accompanies solo step dancers wishing to show off their personal styles with a spirited fast tempo strathspey followed by reels. This short interlude between social dancing sets highlights the interaction between musicians and solo step dancers, allowing the audience to hear the intricate interaction between the rhythms of the Scottish fiddle tunes and the complementary rhythms of shoes tapping and pounding the wooden floors.

Fiddler Sandy MacIntyre explains:

When we play Cape Breton fiddle, we automatically think "dancing." When playing strathspeys, for instance, we pay attention to the dotted notes and round them out in a more even and flowing rhythm, unlike present day Scottish fiddlers, who play a much more strict, pronounced and rigid tempo. (1999: 70)

MacIntyre not only comments on the important influence of dance on the music, but also gives specific examples. The strathspey, as MacIntyre explains, is characterized by dotted rhythms (alternating long-short and short-long rhythms notated as a dotted-eighth-sixteenth and sixteenth-dotted-eighth, respectively). Today, Scottish fiddlers perform the rhythm closely to what is written while fiddlers in Cape Breton "round out" the long-short rhythm by playing a quarter-note triplet followed by an eighth-note triplet.

Many Cape Breton fiddlers are also accomplished dancers (and piano players, for that matter) or were at some point in their lives and, as in many Canadian fiddling traditions, fiddlers incorporate some form of foot stomping or tapping while playing. In Cape Breton, this self-accompaniment is an essential part of performance, allowing fiddlers to keep steady time and helping the fiddler and accompanist to stay together, while also providing a strong beat for the dancers. Sometimes the fiddlers' feet only tap or stomp the basic beat, though the footwork can become much more involved, such as the complex reel tapping pattern of long-short-short/heel-toe-toe (corresponding to a quarter-note, eighth-note, eighth-note rhythm), which may have been borrowed from other traditional fiddling styles in Canada including French-Canadian, especially given the strong Acadian influence still very present in Cape Breton. The tapping might even be seen as an attempt to incorporate a simplified version of the dance into the fiddler's performance, strengthening the connection between fiddle and dance.

The relationship between Cape Breton fiddle music and step-dancing reinforces the deep connection with the music's Scottish heritage while also creating a unique Cape Breton identity. Piping and the Gaelic language are maintained today in both Scotland and Cape Breton. While step-dancing with music remains important in Cape Breton, it has only recently seen a revival in Scotland (see Melin 2005). From my perspective, a consideration of stepdancing is essential when studying how the music of Cape Breton is distinct from the contemporary practices of traditional music in Scotland. In other words, "in Cape Breton the fiddling's more attuned to dancing, as opposed to Scotland, where it's more for listening" (Caplan 2006: 93).

March-Strathspey-Reel Medley

The MSR medley begins with a march. Graham explains,

Marches primarily come from the martial piping tradition in Scotland. Very old marches would surely have been played by Gaelic pipers leading their comrades into battle. To get the feel for a march, pretend you are marching; each time you take a step, feel your foot come down on the beat of the tune. (2006: 183)

The time signature is usually 2/4 (sometimes in 6/8 or 4/4), and fiddlers will place their foot tap and the main accents on the quarter note. The range for marches is between quarter note equals 60 beats per minute (bpm) to 90 bpm, with the average landing around 77 bpm.

The medley then continues with a strathspey, a tune type built around alternating short-long or long-short rhythmic groups. It is notated in a 4/4 time signature with a heavy accent landing on every pulse. Strathspey tempos (there are two main types: a slower listening strathspey and a faster dance strathspey) fall in the range of 130 bpm to 190 bpm. The average is toward the low end for listening strathspeys and at the high end for the faster dancing strathspeys. As noted earlier, the performance practice of the strathspey is to "round out" the characteristic dotted rhythms to create more of a "swung" feel. The notation practice, however, is to use all dotted rhythms to convey the tune, shown in the version of "Yester House Strathspey" in Fig. 1. In performance, however, the result sounds much more like Fig. 2, which is my own transcription of Glenn Graham's performance of "Yester House Strathspey."⁵ Notice the notation of long-short pairs as triplets to show how the performers "round out" the rhythm and the included notation of drone strings. Notice also how the shortlong, long-short groupings in Fig. 1 are often reversed in Fig. 2.

After the strathspeys are performed, the fiddler transitions into the reel, which is a common tune type and forms can be found in many fiddle traditions including Scottish, Irish, French-Canadian, and American. The reel in Cape Breton tradition is usually notated in a cut-time or 2/2 time signature. The pulse is on the half note (two per bar) and the pulse and accent are supported by the fiddler's foot stomp. Reels are performed in the range of half note equals 100 bpm to 120 bpm, with the average around 108-112 bpm, and thus



Fig. 1. "Yester House" from The Cape Breton Fiddlers Collection: A Compilation of 267 Melodies (Cranford 2007:17).



Fig. 2. "Yester House" from *The Breton Family of Mabou: Cape Breton Fiddle and Piano Music.* Transcribed by David Kirkland Garner.

are most consistent in tempo. Speaking of the Cape Breton style of performing reels, Graham notes, "[the] Cape Breton performance approach of the reel differs from modern Scottish and Irish playing. There are fewer slurs, more backbeat, occasional to fairly regular dotted notes and usually a slower tempo" (Graham 2006: 183). By "fewer slurs," Graham is referring to the Cape Breton practice of mostly using a separate bow for each note, which ends up physically

restricting the reel's top tempo to how fast the fiddler is able to bow while increasing the excitement of the performance due to the fiddler's great effort.

Transition from Strathspey to Reel

As mentioned above, there exists very little scholarly writing on the transition from strathspey to reel. The following, by Jeff Hennessy, is the most in-depth analysis I have come across, which I will extend for a more complete understanding of the transition in the large-scale MSR form. Note the specifics of how Hennessy describes the metrical relationships:

The metrical relationship between reels and strathspeys is particularly interesting. The shift from strathspey to reel results in the feeling of acceleration. However this is not simply a result of a tempo shift as a result of the switch from common to cut time. The shift from the swung dotted eighth and sixteenth figure of the strathspey to the straight eighths in the reel alters the groove state The effect is often prepared by sixteenth-note flourishes in the strathspeys. A metrical state shift is also apparent when observing the fiddler's foot stomps. During the strathspey, a fiddler will typically stomp every quarter-note beat as mentioned. During the reel, the stomps generally switch to every half-note beat. The "stomp rate" therefore normally decreases from strathspey to reel reflecting the metrical state shift. The reel's extra drive is therefore achieved by the increase in attack density⁶ between beats (a groove state shift) during the reel: four attacks per beat vs. two attacks in the strathspey. For this reason, I would hesitate to describe the shift in metrical state from strathspey to reel as a deceleration. While the rate of foot stomping does decrease, there is an undeniable increase in the sense of momentum when a reel begins. This is an example of how the groove state shift resulting from the increase in attack density per beat from the strathspey to reel also results in a metrical state acceleration (2008: 219).

Essentially, the two tune-types have different small-scale rhythmic profiles and have different tempi. Because of these differences, the shift between the two creates a great deal of excitement for the listener: "The transition from a strathspey to a reel in a Cape Breton fiddle medley is one of the most effective moments in any fiddle performance. The arrival of the reel is often greeted with loud exclamations of approval" (Hennessy 2008: 247). The fiddler must execute a



Fig. 3. Strathspey to reel transition (Hennessey 2008:247).

complex and technical transition in order to facilitate a smooth transition between the two tune types.

Fig. 3 is taken from Hennessy, who provides an example to demonstrate the typical transition between strathspey and reel, showing the general rhythm of the fiddle on the top staff and the foot stomp on the bottom staff (2008: 247). The figure displays the essential elements of the two tune types and tempos, and is a good start in understanding the transition. I will add to Hennessy's work with some additional detail. I argue that Hennessy's depiction is more accurate for the fiddling and piping traditions that exist today in Scotland. In those traditions, a "Scottish medley" of tunes is presented with a very slight pause inserted between the tune types, and the changes of tempi are abrupt; essentially resulting in a lack of transition altogether. For two examples of this Scottish performance practice, listen to Alastair Fraser's recording *Portrait of a Scottish Fiddler* (1996). There are two MSR tracks and in each the stark difference in how a Scottish fiddler approaches the transitions from march to strathspey and from strathspey to reel is clear. Fraser moves directly into the new tempo in a terraced, as opposed to a fluid or linear, manner. I argue Cape Breton fiddlers have been trained to perform a smooth transition through the practice of playing for step dancers, facilitating a gradual transition from one dance to the next. Because step-dancing is rarely practiced in Scotland today, the smooth transition is not required in contemporary Scottish fiddle and bagpipe performance.

Another feature of Fig. 3 is the representation of tempo. Tempo measured in one tune by the quarter note and in the next by the half note covers the fluidity of transition. The representation of tempo is certainly accurate because of where the foot stomp occurs, but in order to get at the real mechanics of the transition, one must represent the tempi with a common denominator. In my analyses, to show this transition, I chose to notate the half note for both the strathspey and reel, understanding that the actual beat-unit or pulse for strathspeys is the quarter note. I present my own representation of the typical



Fig. 4. Strathspey to reel transition.

strathspey to reel transition in the Cape Breton fiddle tradition in Fig. 4. I am not modeling this figure after any specific performance, rather creating an average transition based on my own observations. I use both quarter-note and half-note tempo measurements in order to show the fluid tempo increase that occurs during this transition. In the Hennessy example, tempo is represented as something that abruptly changes when moving from strathspey to reel; in my example, and in Cape Breton performance practice, the fiddler does not reach the goal tempo for the reel until well into the tune. Fig. 4 shows tempo stabilizing by the fourth bar, however, the initial acceleration can last longer depending on the tempo of the strathspey.

This transitional moment is one of the most exciting in Cape Breton fiddle music. Musicians shift their accent from quarter note in the strathspey to half note in the reels, and the dotted rhythm changes to even eighths. These changes create a relaxing effect that serves as a release of tension built up throughout the strathspey section of the medley. This effect, when coupled with the underlying half-note tempo marker accelerating continuously, gives the listener the paradoxical sensation of simultaneous energy release and energy boost. In concert presentations of MSR "Scottish medleys," fiddlers manipulate the listener's expectations by building anticipation. When a strathspey begins, it is inevitable that reels shall follow, and the longer a fiddler spends in the strathspey section building tension, the more effective the release into the reels. Hence, in order to make the most effective listening experience for the concert presentation of the MSR medley, the fiddler begins the strathspeys slowly in order to have enough room to build to the climactic transition.

To illustrate the transition from strathspey to reel within the context of a strathspey-reel step dance performance, I turn to my analysis of a dance hall track from Howie MacDonald's album *Live! West Mabou Hall* (Fig. 5), recorded live at a dance in Inverness County. In "Joe Rankin Leads the Pack of Dancers," Howie MacDonald performs a dance strathspey followed by three reels to accompany solo step dance.

The shift from dance strathspey to reel occurs by beginning the first measure of the reel in the strathspey tempo (around 100 bpm). In the first section of the tune, MacDonald performs a fast accelerando to the goal reel

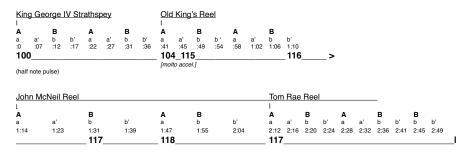


Fig. 5. *Live! West Mabou Hall* (2009), track 5, "Joe Rankin Leads the Pack of Dancers." Howie MacDonald, fiddle; Mac Morin, piano; Dave MacIsaac, guitar.

tempo of 115 bpm. The reels then speed up to 118 bpm before easing back slightly to 117 bpm in the last tune. In "King George IV Strathspey," which opens the track, MacDonald begins the tune at 100 bpm and maintains that tempo through the end of the strathspey. Save a few tempo boosts in the reels section, the accelerando occurs in the crucial transition from strathspey to reel. Because MacDonald is performing for step-dancing, he must maintain a steady, even tempo necessary to aid the execution of the complex step-dancing moves. The transition from strathspey to reel in a dancing set is a complex maneuver between two very different tune types that must be executed in a fluid manner to allow the dancer to make the transition physically. The fiddler's ability to subtly nudge the tempo is essential to obtaining the right "feel" in the music. Now, understanding why fiddlers increase the tempo when transitioning from the strathspey to the reel when accompanying dance, what happens when the fiddler is not confined to the physical constraints of a step dancer such as in a "listening to" concert setting? And how is this tempo manipulation performed in the larger march-strathspey-reel medley?

Methods

Before continuing, it is necessary to explain a few aspects of my approach. As noted, strathspeys are always notated in a 4/4 time signature, and are always performed with a heavy accent on every quarter-note beat. But as I noted, for the purposes of my study, I am measuring the tempo not by the pulse necessarily, but by the half note, or every two foot stomps or pulses. The common way of thinking about tempo in a strathspey is by the quarter note, but this way of thinking masks the underlying *continuous* tempo increase. In addition, the phrasing of many strathspeys supports the half-measure division.

I measured the tempo using an online Beats Per Minute calculator (http://www.all8.com/tools/ bpm.htm). With this tool, one can tap along with the beat on a computer keyboard and the calculator will measure the distance in time between each tap, taking the average for the final calculation. There are some challenges to using this technology as it is impossible to track the tempo in real time when the tempo is increasing quickly, which is the reason I marked the tempo every 5 to 15 seconds instead of trying to track over shorter periods of time. The initial tempi were measured using this tool and measured again with a standard metronome to ensure accuracy. On occasion the tempo marking is in between two numbers, and I had to make a decision to round up or down. When the tempo is somewhere between two numbers or moving back and forth between two metronome markings, I indicate both numbers (e.g., 114/115). Using audio editing software would yield more precise measurements, but the bpm calculator's measurements are sufficient for studying these larger-scale tempo shifts. I have chosen to study 15 examples of the MSR and one strathspey-reel medley to be able to have a clear picture of the codified performance practice of the "Scottish medley" by Cape Breton fiddlers. Of the 16 tempo charts, I have chosen 4 to discuss in this article. The remaining 12 are included in an appendix to provide further examples of the tempo structure. Three of the chosen tracks come from Cape Breton Live Radio Take 02, which is composed of field recordings from house parties, sessions, and pubs where the performers are playing for an audience. The remaining tracks are professional studio-recorded performances.

Analysis

Most tunes in the Cape Breton tradition are in binary form and, in performance, the entire form is usually repeated to create an **A-B-A-B** form (although there are exceptions). Each section usually consists of two phrases to create a parallel period, making the overall form **a-a'-b-b'-a-a'-b-b'**. It so happens that fiddlers often deviate in the tracks I've chosen to analyze, but this underlying form is standard for most tunes. Standard notation of fiddle tunes generally uses repeat signs to signify repeated sections. However, a great deal of information is left out of the actual performance of the music when tunes are notated this way, such as ornamental variation and tempo changes. In performance, the fiddler might play the **a'** section slightly differently during the second repetition, with tempo fluctuation being one element that often varies.

My tempo charts are shown as a timeline in order to convey minute tempo shifts over a period as short as a few seconds, and I have loosely

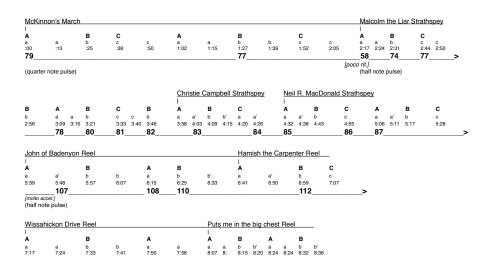


Fig. 6. *Fiddle Music 101* (2005), track 1, "McKinnon's Marching Tunes." Ashley MacIsaac, fiddle; Dave MacIsaac, guitar.

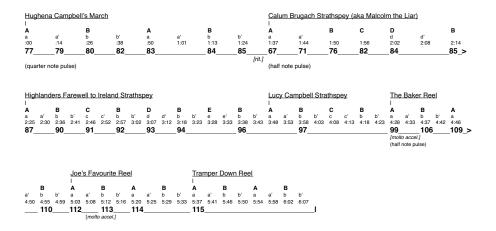


Fig. 7. Cape Breton Live Radio Take 02 (2008), track 5, "Tramper Down." Wendy MacIsaac, fiddle; Jackie Dunn MacIsaac, piano.

attempted to represent time visually in space. I provide the general form of each tune, indicating **A**, **B**, **C** etc. for large sections and using **a**, **b**, **c** to indicate inner repetition. A secondary benefit of these charts is the ability to see the variation in the structure of these unique medleys. Although the typical form for tunes is **A-B-A-B**, there are many tunes that depart from it. It is helpful to be able to visualize what is happening structurally when fiddlers move through tunes. They might, for example, insert a tune with an **A-B-C-A-B-C** form to delight and surprise the listeners. Fig. 6 is especially interesting in this regard. Ashley MacIsaac creates a medley of tunes with unusual forms and even ignores repeats on occasion. In the first reel of the medley, "John Badenyon," MacIsaac only plays the second **A** section once. In the third reel, "Wissahickon Drive," MacIsaac does not return to the **B** section to round out the customary **A-A-B-B** form. Whether intentional or not, the result keeps the listeners on the edge of their seats by breaking the expected patterns.

Fig. 7 is a track from *Cape Breton Live Radio Take 02*, an album that features live recordings of various fiddlers from across the island, which was originally broadcast on the Cape Breton Live Radio show. This track features Wendy MacIsaac on the fiddle and Jackie Dunn MacIsaac on the piano. I picked this example for thorough description because it is one of the longer tracks, containing many tunes. Wendy begins the medley with "Hughena Campbell's March." The march has the typical **A-B-A-B** form and no surprising structural elements. It is a well-established convention for fiddlers to perform a single march in the MSR form. The tempo in the beginning is a leisurely 77 bpm and, over the course of the march, increases to 85 bpm. This tempo increase occurs slowly and steadily throughout the tune. Frequently the fiddler will move through tempi in a "staircase" manner, increasing a few metronome marks and then maintaining that tempo until the next sudden increase. This tune, however, increases continuously over time.

After the march, there are three strathspeys (the average among all examples is two, one slower and one faster dance strathspey) beginning with "Calum Brugach" (also known as "Malcolm the Liar"). This is a common tune, but has a strange form: **A-B-C-D-B**, or more specifically **a-a'-b-c-d-d'-b**. MacIsaac begins this tune at a slower "listening to" tempo at around 67 bpm, a tempo that is well under the ending tempo of the march. This occurs in nearly all of the medleys studied because the fiddler needs a wide range of tempi to differentiate clearly between the slow strathspey and fast strathspey. The two categories provide the fiddler with more expressive possibilities when creating the large-scale MSR medley. In the MSR form, it is often necessary to slow down at the very end of the march moving into the first strathspey. The effect of listening to such a fluctuation reminds me of the shifting of car gears.

When you are in first gear and the revolutions per minute increase to the top of the range, you must throw in the clutch and put the car in second gear if you are going to increase your speed. You hear the RPMs go down quite a bit, but your speed increases. For me, the effect of a fiddler slowing to a relaxed strathspey tempo is much like moving to second gear—it might sound at first like a temporary decrease in energy, but really that shift is allowing the overall energy to increase. This is also due to the increase in note density per beat when moving from march to strathspey.

In "Calum Brugach," MacIsaac performs a continuous tempo increase throughout the strathspey, spanning nearly 20 bpm from 67 to 85 bpm. The first strathspey gives way to "Highlanders Farewell to Ireland," which begins at the fast clip of 87 bpm and again features a steady increase in tempo throughout the tune's form of **A-B-C-B-D-B-E-B**. The tune ends at 96 bpm, which is at the upper range of strathspey tempos. Speaking from personal experience, I can say that it is physically difficult to maintain this quick tempo in a strathspey, but just when I think that MacIsaac is going to "break into" the reel, she increases the energy even more, bursting into a rendition of the popular dance strathspey "Lucy Campbell." She begins the tune at the same high strathspey tempo as the end of the previous tune and, during the **B** section of this **A-B-C-B** form, even manages to increase the tempo to a racing 97 bpm for the rest of "Lucy Campbell." To return to my car metaphor, this is like driving at 6,000 RPM in second gear, sustaining the pressure before finally releasing into third gear.

After the lightning-fast "Lucy Campbell," MacIsaac finally transitions to "The Baker Reel." In a matter of nine seconds, the music pushes effortlessly from 99 bpm to 106 bpm and then more gradually continues on its path to a more stable 109/110 bpm. As I noted, instead of just arriving at the reel tempo, Cape Breton fiddlers ease their way into the new tune type. By the time MacIsaac reaches the next reel, "Joe's Favourite," she has reached 112 bpm. "Joe's Favourite," like "The Baker Reel" and the following "Tramper Down," is in the standard A-B-A-B form and follows the tumultuous, oddlystructured strathspey section to intensify the release offered by the reels. Over the course of "Joe's Favourite," the tempo is pushed slightly to 114 bpm. MacIsaac segues into the concluding "Tramper Down," a popular tune and title of the album's track, at the peak speed of 115 bpm. Throughout the course of the entire medley, moving seamlessly from tune to tune, MacIsaac nearly doubles the tempo to create an exciting listening experience. There is a natural progression of increasing energy intensity in the MSR form that is simply a consequence of the tune types themselves, but Cape Breton fiddlers enhance the accumulation of energy and create more tension and "drive" by gradually

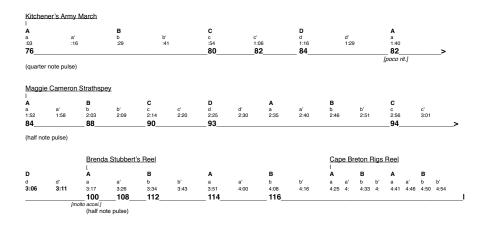
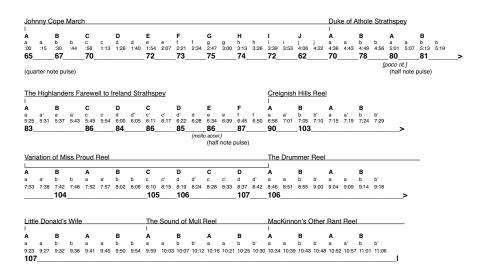
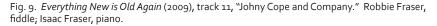


Fig. 8. *Endless Memories* (2008), track 2, "March, Strathspey and Reels in A." Brenda Stubbert, fiddle; Howie MacIsaac, piano; Dave MacIsaac, guitar.





and continuously increasing the tempo over the course of the medley.

In many of the examples studied, a decrease in tempo occurs when moving from the march to the strathspey. However, in some performances, this move is as fluid as the move from strathspey to reel. Take Brenda Stubbert's track from her album *Endless Memories* in Fig. 8, for example. Stubbert begins "Kitchener's Army March" at a steady 76 bpm. Throughout the course of the tune, she slowly increases the tempo to 84 bpm in the **D** section before easing back to 82 bpm in the final **A** section. From there, Stubbert shifts into "Maggie Cameron Strathspey" via a subtle tempo increase. This example also highlights another element found in a number of the examples: tempo decrease. On occasion, especially in marches, the fiddler will alter the tempo by a few beats per minute according to the section, or phrase, of the tune.

In Fig. 9, a transcription of track 11 of Robbie and Isaac Fraser's album *Everything New is Old Again* (2009), Fraser creates a very effective large-scale shape. During the Frasers' performance of "Johnny Cope March," a through-composed, complex, and difficult tune, tempo is used as an expressive tool to shape the large-scale form of the four-and-a-half minute march (the longest in any of the studied medleys). Robbie Fraser begins at the easy tempo of 65 bpm and moves slowly up 10 beats per minute to 75 for the **G** section of the tune. After that, the tempo pulls back slowly to 62 bpm. This is a strange execution of a march, at least compared to the other examples studied, but it reveals an interesting use of tempo fluctuation. Not only does the increase and decrease in tempo serve as a way to create a large-scale shape in the march form, but by performing a *ritardando* in the final sections of the march, the Frasers are also able to approach the initial strathspey below tempo. So, here there is no need for the slight *ritard*. that usually occurs before other strathspeys.

In performances, both in the concert setting and in the dance setting, one of the most compelling moments for the listener or dancer is when the fiddler shifts to new melodic material, sometimes changing the mode, for example from A major to A minor. The excitement, affirmed by hoots and hollers from the audience, brings a fresh jolt of energy to the performance, and provides tired dancers with the encouragement to continue. Another equally important factor in creating energy is a slight and immediate tempo increase. In Fig. 9, the Frasers increase the tempo by 17 bpm over the course of the reels section, with most of the increase coming in the first 10 seconds (13 bpm) of the first reel, "Creignish Hills." Robbie Fraser eventually gets to a steady tempo of 106 bpm in "The Drummer Reel." In the very next transition to "Little Donald's Wife Reel," the change in tune comes with an abrupt, albeit small, tempo shift up one metronome mark to 107 bpm. While a subtle increase in tempo, the overall effect is a substantial boost in energy. The slight tempo increase is *felt*

more than it is *heard*. The Fraser brothers then remain at the same tempo for the remaining two reels.

In today's world of click tracks, where the performer is locked into one tempo for the entirety of a performance or recording, such minute tempo fluctuations are rare. True virtuosity is also displayed through a fiddler's ability to increase a single beat per minute and then remain at that new tempo. While the scope of my study is limited to the MSR form, a similar study of reels alone, perhaps limited to live recordings from dances, would yield additional interesting observations on tempo in dance music and provide more context for the use of tempo in Cape Breton fiddle concert performances.

Conclusions

Cape Breton fiddlers' use of tempo fluctuation is substantially different from *rubato* in Western classical music. In classical music, the tempo will push and pull based on phrasing, cadence, character, and so on within smaller fragments of music, such as a single melody. The use of tempo in the MSR form of Cape Breton fiddling is not this kind of fluctuation. While there are occasions when tempo retreats, the majority of the motion is intensification. The performance practice for many Scottish fiddlers today is to play slower tunes like marches in a manner similar to that of classical music, fluctuating tempo upward and downward according to the phrase to be more expressive. Cape Breton fiddlers, on the other hand, keep the tempo steady, increasing it slightly and in an even manner.

Cape Breton fiddling is mainly a solo form. Single fiddlers performing with an accompanist who has great ears and is adept at following the soloist, are able to easily manipulate tempo. In Irish fiddling, by contrast, it has become customary for groups of fiddlers to play together, making such tempo shifting much more difficult. Similarly, in Scottish Highland bagpipe performance, it is common for entire bands of pipers to play together and the military tradition of bagpipes encourages playing with an even tempo, which is especially true for marches. Indeed, marches are so-named because they are intended to accompany movement and they therefore have to be played in a strict, steady tempo. In the Cape Breton tradition, however, this tune type is performed while stationary, so that tempo fluctuations can be accommodated.

The Cape Breton fiddler's characteristic foot tap or stomp facilitates tempo fluctuation. The tapping serves the functional purpose of communicating tempo shifts to the accompanist. Often the pulse can be difficult to parse out in the actual fiddle sounds because of shifting rhythms and melodic shape. The foot stomp acts as a conductor for the two-person group to maneuver the complex tempo intensification. This practice highlights the Cape Breton fiddle accompanists' musicality as they must be extremely sensitive to any subtle shifts in tempo the fiddler performs.

Depending on the absence or inclusion of dancers, the fiddler varies his or her style of playing. The broad tempo intensification that occurs in the "listening to" concert venue is not conducive for dancing. When at dances or house parties, step dancers perform a combination of strathspey and reel steps. The entire mini-medley lasts only a minute or two, depending on the dancers' stamina. The different strathspey and reel tempos facilitate the different strathspey and reel steps performed by the dancer. Because it would be physically awkward for a dancer to have to terrace up to a much faster tempo when switching to the reel, the tempo gradually increases, with the reel starting at the strathspey tempo, accelerating slowly over the course of the first phrase of the reel. The core of my observations on tempo increase is this transition from strathspey to reel when performing with a step dancer, and the listening context of the MSR medley is an expansion of this core idea. In other words, the gradual tempo increase seen in the MSR "Scottish medley" form is based on practices learned from the interaction between dancer and fiddler, but has become a codified practice of its own, performed whether accompanying a dancer or not. Thus, the large-scale tempo increase in MSR form extrapolates and exaggerates the strathspey-reel transition found in stepdancing sets.

The fiddle tradition thrives in Cape Breton for many reasons, but one contributing factor is the large number of amateur fiddlers and piano players. Fiddle music on Cape Breton Island can be enjoyed in many contexts: in a dance hall, in a concert hall, in a pub, at a house party, with a small number of friends and family, or privately. Only the dance and house party will almost certainly include step-dancing, calling for dance tunes and forms, while the other contexts more often call for "listening to" playing and forms. I have drawn a distinction through much of this article between dance occasions and concert occasions in order to illustrate the dance influence on performance styles, but of course reality is more of a continuum: there are many situations, like a house party, that are not clearly in either the dance or concert context.

Jackie Dunn MacIsaac argues that fiddlers do not necessarily need to speak the Gaelic language in order to correctly perform Cape Breton fiddle tunes because the accent, cadence, rhythm, and character of the language has been absorbed into the fiddling tradition (Dunn 1991; see also Sparling 2014, chapter 6). She explains that young fiddlers not fluent in Gaelic must only immerse themselves in the Cape Breton Gaelic fiddle sounds in order to carry on the tradition. Piping and dancing are other significant influences on the music. While many fiddlers in the history of the music have played pipes as well, it has never been important for fiddlers to have to play the pipes in order to evoke the *sound* of the pipes. And, just as in these cases, I argue fiddlers do not need to be dancing while fiddling, fiddling for dancers, or even know how to step dance in order to play Cape Breton fiddle music in a way that honours the heritage and tradition of dance accompaniment.

Notes

1. The fiddlers, recordings, and dates are: Andrea Beaton: *Cuts* (2004) and *Cape Breton Fiddle and Piano Music* (2004); Kinnon Beaton: *Cape Breton Fiddle and Piano Music* (2004); Kimberley Fraser: *Heart Behind the Bow* (2001); Robbie Fraser: *Everything Old is New Again* (2009); Jerry Holland: *Fiddler's Choice* (1999) and *The Judique Flyer* (2000); Willie Kennedy: *Cape Breton Violin* (2009); Ashley MacIsaac: *Fiddle Music 101* (2005); Wendy MacIsaac: *Cape Breton Live Radio Take 02* (2008); Alex Francis MacKay: *Gaelic in the Bow* (2005); Carl MacKenzie: *Cape Breton Live Radio Take 02* (2008); Buddy MacMaster: *The Judique Flyer* (2000); and Brenda Stubbert: *In Jig Time* (1997), *Cape Breton Live Radio Take 02* (2008), and *Endless Memories* (2008).

2. See page 95-97 of Jessica Herdman's *The Cape Breton Fiddling Narrative: Innovation, Preservation, Dancing* (2008) for more information on this debate.

3. In this YouTube clip, a step dancer demonstrates both a strathspey and reel (http://www.youtube.com/watch?v=Xz0SyV5uSK4). Notice how the steps differ in each tune type, and how a specific and narrow tempo range is necessary for those steps to be possible.

4. See Andrea Beaton's track titled "Smirnoff" from her album *Branches* (2009) for a great example. She moves from a reel into a waltz!

5. This version of "Yester House Strathspey" is from track 4 of *The Beaton Family of Mabou* (2004). Glenn Graham is on fiddle, and Elizabeth Beaton and Mary Graham are on piano.

6. According to Hennessy, "attack density" refers to the number of notes, or attacks, in a beat.

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