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Constraint and innovation in the traditional fiddle repertoire of Cape Breton

SALLY K. SOMMERS SMITH

The palaeontologist Stephen J. Gould characterised the process of evolution as a constant struggle between constraint and innovation. The traditional fiddle music of Cape Breton, Nova Scotia, presents an interesting case study of constraint and innovation in repertoire and tune identity. In Cape Breton, fiddle music remains strongly linked to the identity of the people of that island. This music is a closely-held cultural expression that reflects the Highland Scottish ancestry of many of the first European settlers of Cape Breton and the so-called Golden Age of Scottish fiddling. It is a music that is closely tied to community practices of dance, an almost unique situation in traditional music today. During the past two decades, the music has experienced a surge in worldwide popularity. Due in part to this increased attention, as well as the fact that Cape Breton island has also become a mecca for musical tourism, traditional practices associated with the performance and the reception of traditional fiddle tunes, according to some observers, have undergone noticeable changes.

This is not an unusual phenomenon. The term ‘traditional music’ implies that such music is bound by strict adherence to forms, styles, and performance norms that are agreed upon by the people who play, enjoy, and transmit the music to succeeding generations. This is often true. But, in the spirit of Stephen Gould, we must recall that the music is a living – and therefore evolving – entity. It must change. If we are to acknowledge that performance practices for traditional music in Cape Breton are changing, it is instructive to examine how changes in the contexts and reception of the music may affect tune identity and evolution of repertoires. A number of influences can be identified that constrain innovation and change in the repertoire associated with Cape Breton tradition; these include a strong reliance on the written tune as the accepted model for performance, use of written models in instructional settings, and the desire to maintain the close association between the Cape Breton musical tradition and that of Scotland.

Claims that a traditional music is changing often bear a flavour of intergenerational critique in the community of musicians who practice the tradition. If a traditional music achieves widespread popularity, there inevitably arrives a time when purists and older musicians will shake their heads and declare that the music has been irrevocably altered.
The impetus to this change is often believed to be the influence of players not born to the tradition, or the effect of commercial recordings on musicians and audiences alike. Younger players in the tradition may be more rigorously trained and therefore bring a higher level of technical skill to the performance of traditional melodies. Other influences, such as the change of audience and presentation style that often attend the translation of a traditional music to the professional stage are sometimes blamed for the perceived change in the music.

It is often difficult to verify these claims about change in traditional music, particularly if that music is most often perpetuated via aural transmission. In this paper, however, I will attempt to evaluate one such claim: that the repertoire of the traditional music of Cape Breton has changed since about 1990 to include a larger proportion of newly-composed tunes at the expense of the older, more identifiably Scottish melodies (the newly-composed tunes are sometimes referred to as ‘Route 19 tunes’, a reference to the roadway that traverses Inverness County, a seat of the music). This claim takes several forms. Most benign, perhaps, is the assertion made by recording producer and guitarist Paul MacDonald that trading of homemade music tapes among Cape Breton music aficionados in Boston in the 1950s contributed to growth in the fiddle repertoire of Cape Breton fiddlers. I have heard fiddlers and avid followers of the music complain that more new tunes are heard at dances these days, and fewer older Scottish tunes. A more comprehensive claim is advanced by folklorist and fiddler Burt Feintuch, who recounts that musicians and journalists alike have begun to refer to ‘Cape Breton fiddle music’ rather than ‘Scottish violin music’ over the past few decades. This change in nomenclature is momentous, a metamorphosis that encompasses the entire cultural identity of the residents of Cape Breton, and examining the full meaning of this change is beyond the scope of this paper.

Instead, I'll simply present a statistical model that can be used to track changes in the recorded repertoire of Cape Breton fiddlers, from the earlier recordings on 78s and LPs through more current recordings of today’s bearers of the tradition. Using this model, I hope to test some of the subjective impressions that the music has changed; in particular the claim that more newly-composed Cape Breton tunes are being played and recorded during the past two decades than in the past. I will also use the model to assess whether, as a result of these newly-composed tunes, the repertoires of Cape Breton fiddlers have become more diverse, and thus more inclusive of new tunes or tunes not derived from the received Scottish tradition.

First, I’ll introduce the model, and the types of data one might be able to assess through using it. There are biases related to the collection and analysis of these data, and I’ll consider these biases as well. Then, I’ll show some sample results from my analysis and discuss what they might mean.

The statistical model I’ve chosen to test the claims of repertoire change in Cape Breton fiddle tradition, the Shannon Index of Diversity, is borrowed from the mathematically-based science of population dynamics. Field biologists investigating environmental change use the Shannon Index as a tool to measure the number and distribution of species in an ecosystem. Fiddle tunes are not species, but the diversity of a fiddler’s repertoire, in terms of the provenance of the tunes therein, may be measured in much the same way as the diversity of a biological community. The model is a simple mathematical expression, shown here:
\[ H' = -\sum (P_i \ln (P_i)) \]

where \( \Sigma \) represents the sum of the categories, \( P_i \) represents the proportion of the total, and \( \ln \) is the natural log of this proportion. \( H' \) represents the diversity of the population – in this case, recorded fiddle tunes – being studied. The power of this model is that it can be used to examine differences in individual repertoires, regardless of the sizes of those repertoires. A smaller recorded repertoire can therefore be confidently compared with a very large one. \( H' \) can also be used to describe, in a single number, the overall ‘Scottishness’ of an individual’s recordings. What is the bottom line? Smaller \( H' \) values mean greater reliance on the received Scottish repertoire. Greater \( H' \) values mean a more diverse repertoire, with less reliance on older Scottish tunes.\(^4\)

I began with the database compiled by Alan Snyder,\(^5\) which lists recordings made by Cape Breton traditional musicians (as well as musicians from closely related traditions, such as that of Prince Edward Island).\(^6\) It is important at the outset of this analysis to note that a recorded repertoire is only one measure of the actual number and diversity of tunes played by a fiddler. Use of recorded repertoire only is thus an important bias in the present study. It is, however, also worth noting that recorded repertoire may also be one of the most important measures of what a traditional musician plays, as it constitutes the body of work by which he or she will be known to audiences over time. The choices that a musician makes about what to record will mould that musician’s legacy. I feel confident, therefore, that use of a recording database for this study is not merely a convenience; it also provides a means of measuring a musician’s deliberate contributions to the evolution of the tradition.

![Percentage of Recorded Tunes from 18\textsuperscript{th}-19\textsuperscript{th} Century Scottish Repertoire](image)

**Figure 1**

In order to use the Shannon Index for this analysis, tunes must be grouped into categories that will help show the diversity – or lack thereof – in a fiddler’s repertoire. The choice of these categories is important, although prone to bias. In order to minimise this
bias, I first compiled the recorded tunes from the database which were listed as ‘traditional’, or whose composers were clearly associated with either the older Scottish repertoire (such as Niel Gow, Joseph Lowe, or William Marshall) or the famed Scottish composer/fiddlers of the last century (such as J. Scott Skinner or J. Murdoch Henderson). These sources made up a huge percentage of most fiddlers’ recorded repertoires, as expected. I divided each fiddler’s recorded repertoire into Scottish and non-Scottish tunes, and the results of this preliminary analysis are shown in Figure 1. As you can see, the percentages of older Scottish tunes in the recorded repertoires of ten randomly selected artists ranged from about 53% to 100%. The average fell between 75%-90%. Two outliers to this group, which are not shown in the figure, recorded only 3% and 5% older tunes – and I’ll speak more about these outliers presently.

After this first division between traditional Scottish and non-Scottish tunes, I looked more closely at the tunes in these fiddlers’ recorded repertoires that did not come from the older Scottish tune-books. Where did these tunes come from? From two places, principally: from Irish tradition, and from Cape Breton composers. The Irish component is not surprising, as Irish emigrants also found their way to Cape Breton Island in large numbers in the nineteenth and twentieth centuries. Irish traditional music is a time-honoured (although little-discussed) strain in the distinctive fiddle music of the island. Suffice it to say that most CB fiddlers of the last fifty years have heard and been influenced by recordings and performances of Irish traditional tunes. The last category, Cape Breton composers, was the most interesting. Three composers stood out from all others, in terms of the number of different tunes recorded by CB fiddlers, and the number of times these tunes were recorded. Both of these measurements strongly suggest the extent to which the music of these composers has penetrated (and helped to define) the present Cape Breton tradition.

These composers are Dan R. MacDonald, Donald Angus Beaton, and Dan Hughie MacEachern, among whom MacDonald and Beaton appear more frequently than MacEachern. These three influential fiddler/composers belonged to a common generation; they knew and played with each other (although each lends a very different legacy to the tradition, something I’d love to discuss but is beyond the scope of this paper). Their generation, however – significantly – is the (circa) World War II-generation (approximately from 1940–1950), and not the present generation of fiddlers and composers. Compositions from a younger generation of fiddlers also were prominent in the ‘non-Scottish’ category. Of these, the names of Kinnon Beaton and Andrea Beaton (the son and granddaughter of Donald Angus Beaton) appear most frequently. These two contemporary composers, along with their patriarch Donald Angus Beaton and cousin Glenn Graham, form a ‘Beaton family’ category of composers. Last, there was a large number of tunes with an eclectic variety of composers. Some of these composers had few tunes to their credit (such as Wilfred Gillis, Peter MacPhee, and Gordon MacQuarrie), but these few tunes appear to be very popular (such as the well-known Wilfred Gillis strathspey, ‘Welcome to the Trossachs’, and the lovely Gordon MacQuarrie air, ‘The Bonnie Lass of Headlake’, which has close ties to Irish models). I think it’s significant that these composers are also from the WWII generation. A few modern composers, such as the late John Morris Rankin and Jerry Holland, also appear prominently in this category. Surprisingly, the Cape Breton musician who, it is claimed,
composed the largest number of tunes (about 34,000, by one count) is all but absent in this database of recorded tunes: John MacDougall. Based on this preliminary analysis, I’ve chosen the following categories from which I can estimate diversity in CB fiddling repertoires, and thus ask whether the repertoire has, indeed, changed over the past 20 years: (1) ‘Old’ Scottish tunes, from the received Scottish repertoire; (2) ‘New’ Cape Breton tunes; (3) Irish tunes; (4) Beaton family tunes; (5) Dan R. MacDonald tunes; and (6) tunes from ‘other’ new composers. Because recordings are often means of showcasing one’s own tunes, I have also added a (7) ‘self-composed’ category as well. Now, some of these categories have overlap; for example, Andrea Beaton’s recordings contain a large percentage of her own tunes, which will fall into both the self-composed and Beaton family categories. But given the overwhelming predominance of the Scottish repertoire in even quite recent recordings, I feel this overlap will not mightily skew the numbers.

What does an analysis using the Shannon index tell us, then, about whether Cape Breton repertoires have changed in the past two decades? I first looked at two fiddlers whose recorded repertoires would, I felt, show the greatest divergence in terms of inclusion of newly-composed Cape Breton tunes and tunes from the other categories I’ve listed: Dan R. MacDonald and Andrea Beaton. Dan R. was a prolific composer; by some accounts he may have composed as many as 22,000 new tunes. Yet in his own fiddling, he preferred the music of the Scottish masters he had known from childhood. His wartime posting in Scotland permitted Dan R. to become acquainted with published collections of Scottish tunes, and he worked with the renowned fiddler J. Murdoch Henderson to master these tunes ‘from the page’. Dan R. loved, however, to hear other musicians play his tunes. His compositions form a large a part of the current Cape Breton repertoire, perhaps because he is so well and fondly remembered, as well as the fact that his tunes are very much to the taste of today’s musicians. Andrea Beaton is a young and very popular fiddler, from the most prominent music family on the island, whose roots extend clearly back to Scottish Highland musicians of the early nineteenth century. She is a dance player of great virtuosity and drive, and preserves in a special way the Scottish fondness for the dancing strathspey. Figure 2 shows a comparison of their recorded repertoires, using the Shannon Index of Diversity: Andrea’s recorded repertoire is more than twice as diverse as that of Dan R. (in terms of this statistical measure that is an enormous difference).

Next, I compared the Shannon Indices for several other fiddlers, some of whom recorded in the past, and some in the present. All present interesting individual cases, as shown in Figure 2. Jerry Holland’s and Brenda Stubbert’s indices appear to differ from each other, for example, but both their repertoires draw strongly on new tunes, and are especially rich in self-composed tunes. Buddy MacMaster’s index shows a medium level of diversity, which may be attributed to the fact that in his playing and recording career he preferred older Scottish tunes, but also championed the new compositions of Cape Breton fiddlers such as John Morris Rankin, and fiddlers beyond the tradition whose music he found compelling, such as those of Maine fiddler Frank Ferrell. Bill Lamey’s repertoire shows little diversity, but he recorded very little. Although a well-known radio personality before his emigration, Bill Lamey lived much of his adult life in the Boston area, and played there for dances attended by fellow emigrants from Cape Breton. Emigrant communities tend to preserve
tradition more carefully than do native communities – this norm of ethnomusicology can readily be observed in traditional Cape Breton repertoires, as well as in the playing of those who left the island for greener pastures in ‘The Boston States’ and elsewhere. Winston Fitzgerald’s index shows little diversity, but his playing coincides with the first wave of recording that presented Cape Breton music to a larger world. This was also the era of the so-called ‘tartanising’ of Cape Breton; that is, presenting the Scottish heritage of Nova Scotia as a tourist attraction.

What does this analysis show? By itself, the data merely highlights differences in sources for tunes among Cape Breton recording artists, both past and present. These data do lend strong support, however, to the subjective impression of some musicians and observers of Cape Breton music who contend that fiddle repertoires have undergone rapid enlargement and increased diversity during the past few decades. Why has this happened, and what might this shift mean for the future of traditional music in Cape Breton?

First of all, we can identify practical pressures that act to foster change in the repertoire; these are related to the close link between the music and dance, and to the demands placed upon fiddlers by the dancers. The music was for generations enjoyed as a listening music or as a music played for informal dances; played by a solo piper or (more and more commonly) a fiddler, perhaps accompanied by pump organ, improvised percussion (such as knitting needles), and – later – piano. The square set dances that are currently popular in Cape Breton are actually imports from New England, and are comprised of a series of figures, usually three, that have jig and reel rhythms. The accepted practice for fiddlers is to play a single tune only twice through in a single figure of a set; in practice, this means that one jig figure might require the performance of five, six, or even more different tunes. A typical ‘Boston set’ consists of two jig figures and a final reel figure. Dance fiddlers in Cape Breton must thus possess a considerable personal repertoire in order to play even a single three-figure set. And tunes are rarely repeated during an evening’s sets. The dancers and listeners are extremely conversant with the repertoire of particular fiddlers, and will often request specific tunes, even if the specification is on the order of, ‘Play that nice reel in F that I heard you play last week’. The fiddler has to know the tunes, even when they are vaguely described.

Second, we can identify social pressures that also influence the performance of the music. In recent years, social dances have become more frequent and more populated, perhaps because they have become tourist destinations as well as community get-togethers. In addition, concerts of traditional music have also become commonplace. The twin social pressures of tourism and commercialism have acted to expand the repertoire shared by many fiddlers on the island. The newer ‘Route 19’ repertoire is shared and performed by younger musicians not only at dances but also in concert performances. The present study confirms, however, that the recordings of fiddlers from the younger generation of Cape Breton performers feature a far larger percentage of newly-composed tunes than do the recordings of their elders (the outliers in my first analysis fit this picture). Older fiddlers, in contrast, retain a larger number of older tunes in their performance and recorded repertoires. The competing pressures of constraint and innovation in Cape Breton are resulting in the evolution not of individual tunes, as Samuel Bayard documented, but of
an entirely new repertoire. Accompanying this new repertoire is another shift that might have even more profound consequences for the cultural identity of Cape Breton Island, as well as its artistic expressions. As more Cape Breton compositions have entered the shared repertoire of traditional musicians, the language used to describe the players and their music has also changed. Cape Breton musicians were frequently described on covers of recordings as ‘Scottish fiddlers’ or as playing ‘Scottish violin music’. Sometimes, as with the 1975 Rounder LP titled *Joseph Cormier*, the designations end up sounding geographically confused: ‘Scottish Violin Music from Cape Breton Island’. By c. 2001, Buddy MacMaster was being hailed as ‘Cape Breton’s Master Fiddler’ on *The Judique Flyer*. At the same time as the tradition was expanding to encompass melodies composed on Cape Breton Island, it was also in the process of claiming for itself a separate and unique identity. The data presented in this paper would argue that the repertoire is changing as a result of the music’s popularity beyond Cape Breton Island. Nor is it difficult to conclude that repertoire-change signals the very real emergence of a unique Cape Breton form of traditional music, distinct from that of its Scottish parent.\(^\text{12}\)

<table>
<thead>
<tr>
<th>Fiddler</th>
<th>Diversity Index</th>
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</thead>
<tbody>
<tr>
<td>Jerry Holland</td>
<td>$H' = 1.38$</td>
</tr>
<tr>
<td>Brenda Stubbert</td>
<td>$H' = 1.10$</td>
</tr>
<tr>
<td>Buddy MacMaster</td>
<td>$H' = 1.12$</td>
</tr>
<tr>
<td>Winston Fitzgerald</td>
<td>$H' = 0.80$</td>
</tr>
<tr>
<td>Bill Lamey</td>
<td>$H' = 0.29$</td>
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**Figure 2** A comparison of the diversity of the recorded repertoires of five well-known Cape Breton fiddlers. Older fiddlers Winston ‘Scotty’ Fitzgerald (1914–1987) and Bill Lamey (1914–1991) recorded mostly older Scottish tunes; Buddy MacMaster’s (1924–2014) repertoire is almost equally divided between older Scottish compositions and very new tunes in the Cape Breton tradition. The repertoires of Brenda Stubbert (b. 1959) and Jerry Holland (1955–2009) include a number of self-composed tunes.

This study tested subjective perceptions suggesting that a transition to a more Cape Breton-centred fiddle repertoire has occurred only recently, perhaps since about 1990. In fact the shift has not happened within the last twenty or thirty years. The transition from Scottish tunes to tunes composed and played by the fiddlers of Cape Breton seems to have begun in the 1940s. Successful composers of the present generation whose tunes have penetrated the tradition are following on the heels of their fathers and grandfathers, two generations ago – the real innovators? They were the composers and players of the World War II era, those who defined the Cape Breton sound their children and grandchildren continue today. Although still bounded by constraints in the style and performance practice of the music, Cape Breton fiddlers today are free to innovate in their choice of tunes, and free to add to the rich tradition they have received. It is rare to observe evolutionary change; the struggle between constraint and innovation seldom produces identifiable change in a single generation. Despite subjective observations to the contrary, repertoire evolution hasn’t happened in a single generation in Cape Breton, either.
Notes


3 This is not the first time that subjective impressions about musical change have been tested with quantitative methodologies. Please see Eric Clarke and Nicholas Cook, eds, *Empirical Musicology: Aims, Methods, Prospects* (Cary, NC: Oxford University Press, 2004) for a selection of similar analyses.

4 A compact introduction to indices of species diversity and evenness can be found at ‘Diversity Indices: Shannon’s $H$ and $E$’, http://www.tiem.utk.edu/~gross/bioed/bealsmodules/shannonDI.html [accessed June 2015]. Note that I do not use the measure of ‘evenness’ mentioned in this initial study, but it could be used to simply estimate the penetration of a particular tune or body of tunes into the fiddle tradition in Cape Breton and beyond. I hope to extend this study to include this kind of evenness measurement in the future.

5 The database can be found at ‘Cape Breton Fiddle Recording Index’, *Alan Snyder’s Cape Breton Fiddle Recording Index* (2002–2015), http://www.cbfiddle.com/rx/ [accessed June 2015].

6 The database lists 261 recordings, ranging from 78 rpm singles to LP and CD albums, by 91 individual artists (plus several groups of artists), and 4178 different tunes. Many of these tunes have been recorded numerous times by different artists.

7 The influence of Irish music on Cape Breton fiddle music is a subject that must be approached carefully. It is, however, important to note that dance musicians from any tradition will borrow tunes and techniques that they find useful or interesting. No tradition, in this sense, is ‘pure’ in its antecedents.

8 Glenn Graham, *The Cape Breton Fiddle: Making and Maintaining Tradition* (Sydney, NS: Cape Breton University Press, 2006), p. 98. This figure is probably greatly exaggerated, however; another source quotes MacDougall as supposing he had written ‘about three hundred tunes’. See Allister MacGillivray, *The Cape Breton Fiddler* (Marion Bridge, NS: Sea-Cape Music Limited, 1997), p. 119.

9 Graham, *Cape Breton Fiddle*, p. 97.


11 Graham, *Cape Breton Fiddle*, p. 98.

12 Another important piece of evidence that dates this transformation in repertoire to the 1940s is the publication, in 1940, of the first collection of locally-composed tunes, selected and edited by Gordon MacQuarrie. This collection (*The 1940 Cape Breton Collection*) marks the first publication of several famous Dan R. MacDonald tunes (such as *The Red Shoes*), as well as MacQuarrie’s own ‘Bonnie Lass of Headlake’, which may have been based on an older Irish melody. See Gordon F. MacQuarrie, *The Cape Breton Collection of Scottish Melodies for Violin* (Medford, MA: J. Beaton, 1940).