SEÁN DOHERTY

Francis O'Neill (1848–1936) was concerned that much Irish traditional music remained uncollected and was in danger of being lost before the close of the nineteenth century.¹ A traditional flute player from Tralibane, west Co. Cork, he emigrated to the United States in 1867 and enlisted in the Chicago police force where he progressed to the position of Chief Superintendent.² He began to dictate tunes remembered from his childhood to fellow policeman James O'Neill, a fiddle player from Co. Down, who was musically literate. Others, chiefly from the Chicago Irish Music Club, contributed tunes from their own memory, manuscripts, and printed collections.

O'Neill accumulated a vast store of more than 2,000 tunes and self-financed the publication in 1903 of a popular collection of these for the use of performers entitled *O'Neill's Music of Ireland*.³ This collection of 1,850 tunes was the largest collection of Irish music published before *Sources of Irish Traditional Music, c.1600–1855* in 1998.⁴ The enthusiastic reception of *Music of Ireland* encouraged O'Neill to revise the publication in a specialized volume exclusively consisting of dance tunes.

The Dance Music of Ireland: 1001 Gems (henceforth *Gems*) was to exert a decisive influence on the playing of Irish traditional music throughout the twentieth century, to the extent that many musicians referred to it simply as 'The Book' or 'The Bible'.⁵ Its

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¹ Biographical information on Francis O'Neill is derived from Nicholas Carolan, 'O'Neill, [Daniel] Francis', in Harry White and Barra Boydell (eds), *The Encyclopaedia of Music in Ireland* (Dublin: University College Dublin Press, 2013).

 ² Nicholas Carolan, A Harvest Saved: Francis O'Neill and Irish Music in Chicago (Cork: Ossian, 1997), 13–22.

³ Francis O'Neill, O'Neill's Music of Ireland, Eighteen Hundred and Fifty Melodies (Chicago, IL: Lyon and Healy, 1903).

⁴ Aloys Fleischmann (ed.), Sources of Irish Traditional Music, c.1600–1855, 2 vols (New York: Garland, 1998).

⁵ All information in this paragraph is derived from Robert Harvey, 'When Evening Shadows Fall': The Development of the Composition of Irish Traditional Dance Music in the 'East Galway Style' from c.1950 (PhD dissertation, Technological University Dublin, 2018), 174, <u>https://arrow.tudublin.ie/appadoc/89</u>

influence has been attributed to three reasons: it was the first extensive compilation of dance tunes whose widespread adoption allowed for group performance of a version that could generally be agreed upon; its American provenance bore the imprimatur of the pluralist environment whence the tunes were collected; the bare-bones presentation of the tunes was neutral and allowed for performance in any regional style.

The scholar Breandán Breathnach made a distinction between two types of tune collection.⁶ The first type was created and published by those from outside the tradition for a literate public who were also outside the tradition, such as Bunting, Petrie, and Joyce. They were motivated primarily by antiquarian concerns to preserve the national folk repertoire as an archive.⁷ Breathnach contrasted these with collections created by those who were performers themselves and that were for learners and fellow practitioners.⁸ O'Neill's collections belong to this second type. Breathnach's two types of collection correspond to the etic-emic distinction in tune collections observed by ethnomusicologists.⁹ As an established flute player, O'Neill was a cultural insider who was collecting music to be performed for other insiders. Therefore, he included in the notation only what was needed by fellow insiders who already possessed the assimilated knowledge of the living performance tradition. He did not claim that the printed versions were an exact record of real performances:

No pretense is made that the tunes are printed as taken down from the singing, whistling or playing of those from whom many of them have been obtained, as most collectors of Irish music have done. On the contrary the settings considered the most meritorious are herein given to the public, for various are the versions of Irish airs, according to locality and individual taste.¹⁰

The criteria that constitute the 'most meritorious' settings were not defined, other than that they preserved the 'characteristic tonality of Irish music'.¹¹ The skeletal presentations of the basic melody with little information of stylistic features serve as a blueprint or *aide-mémoire* rather than as an exact ethnographic record of a single performance. In the terminology of ethnomusicologist Charles Seeger, the notation is

⁶ Brendán Breathnach, 'The Use of Notation in the Transmission of Irish Folk Music' (Irish Traditional Music Society, U.C.C., 1986), in Brendán Breathnach, *The Man & His Music: An Anthology of the Writings* of Brendán Breathnach (Dublin: Na Píobairí Uilleann, 1996), 92–100: 93.

⁷ Harry White, 'The Preservation of Music and Irish Cultural History', International Review of the Aesthetics and Sociology of Music, 27/2 (1996), 123–38: 127.

⁸ Breathnach, 'Notation', 93.

⁹ Bruno Nettl, *The Study of Ethnomusicology: Thirty-One Discussions and Concepts*, 2nd edition (Champaign: University of Illinois Press, 1983; reprinted 2005), 77–9.

¹⁰ Francis O'Neill, The Dance Music of Ireland: 1001 Gems (Chicago, IL: Lyon & Healy, 1907), iii.

¹¹ O'Neill, Gems, iii.

prescriptive, as opposed to descriptive.¹² His longstanding experience as a flute player motivated him to prioritize the utility of the collection for other performers, as observed by O'Neill scholar Nicholas Carolan in relation to his editorial approach:

Rather than reproducing exactly what musicians or paper sources provided, as earlier collectors had purported to do and as modern scholarship would demand, O'Neill and his friends took the more robust and pragmatic approach of practising traditional musicians. They invented titles for anonymous tunes, and reset dance music, if necessary, in keys suitable for fiddle, flute and uilleann pipes. They included only settings they regarded as of merit, and, with a confidence that is hard to criticise, usually preferred their musician sources to printed sources.¹³

O'Neill dedicated his first collection 'to the multitude of nonprofessional musicians of the Gaelic and English-speaking races all over the world who enjoy and cherish the melodies of Ireland'.¹⁴ His inclusion of the word 'nonprofessional' suggests that the intended audience lacked the expected competencies of the musical professional, including fluent notation literacy. O'Neill admitted that his own skill in notation was 'limited, scientifically speaking' and he relied on his amanuensis to transcribe tunes, but his correspondence shows that he did attain a degree of basic notation literacy in later life.¹⁵ This highlights that notation literacy is not a binary between literate and illiterate, but a continuum. As this collection was never intended to be used in performance or require fluent sight-reading, a performer may be functionally literate for the purposes of the collection, which was to learn a new tune piecemeal or to recall all or part of a forgotten tune.

O'Neill's collections had a significant influence on the national repertory as literate traditional musicians began to acquire volumes and to copy tunes into personal manuscripts.¹⁶ Non-literate traditional musicians learned these tunes from the playing of literate players, both directly and remotely, as sound recordings became increasingly available commercially from the 1920s. O'Neill's publications and manuscript copies boosted the spread of literacy among traditional musicians, and served as examples for the later tune collections of Francis Roche and Breandán Breathnach himself.

O'Neill's introduction to the collection stressed its comprehensive nature as a broad compendium of the traditional dance repertoire:

 ¹² Charles Seeger, 'Prescriptive and Descriptive Music-Writing', *The Musical Quarterly*, 44/2 (1958), 184–95.

¹³ Carolan, *Harvest*, 42.

¹⁴ O'Neill, Music, i.

¹⁵ Carolan, *Harvest*, 43.

¹⁶ Information in this paragraph is derived from Carolan, *Harvest*, 56–7.

In the compilation of this work, comprising a class of melodies which has hitherto received but slight attention from collectors of Irish music, the aim of making it truly representative has been kept constantly in view, and it is confidently hoped that in the variety of its contents there will be found sufficient to satisfy the diverse tastes and preferences of all lovers of the 'Dance Music of Ireland'.¹⁷

The significance of *Gems* as a foundational document to the modern performance tradition justifies a corpus study of the collection as an historical artefact. Furthermore, this substantial collection provides an adequate sample size that will yield reliable statistical data to allow for the comparison of tunes from a single tune classification, e.g., reels, hornpipes, etc. The present article is an examination of a single tune classification, double jigs, the first and largest tune classification in the collection. The regular structure of these dance tunes makes them suited to systematic analysis both on a small scale, to identify the melodic structures within a single tune, and on a large scale, to compare the melodic structures across a tune classification. The term 'dataset' will be used to refer to the 365 double jigs in *Gems*.

This study will employ an analytical methodology devised to explicate and compare melodic structures in this dataset. This methodology is informed by the research of scholars in the analysis of Irish traditional music,¹⁸ but differs from prior scholarship primarily in its use of bar-length motives as the yardstick for patterns of repetition. The melodic structure of each tune is analysed according to a grid pattern in which each motive is a bar in length. This uniform motive length of a bar is not a Procrustean bed, but rather appears to reflect the regular and symmetrical structures of this dance repertoire, including the expectations for motivic repetition in sub-phrases, phrases, and parts. These expectations imply that melodic structures in this repertoire are largely constructed from bar-length motives to create 2-bar sub-phrases, 4-bar phrases, and 8-bar parts.

This methodology allows for an appreciation of those melodic structures that are articulated by the repetition of bar-length motives. It may be used in conjunction with

¹⁷ O'Neill, Gems, i.

¹⁸ Aloys Fleischmann, 'Introduction', in Fleischmann (ed.), Sources, xvii–xxxix; Mícheál Ó Súilleabháin, 'Creative Process in Irish Traditional Dance Music', in Gerard Gillen and Harry White (eds), Irish Musical Studies 1: Musicology in Ireland (Dublin: Irish Academic Press, 1991), 117–30; Breandán Breathnach, 'Between the Jigs and the Reels', Ceol, 5/2 (1982), 43–8; Harvey, 'When Evening Shadows Fall', 80–183; Andy Hillhouse, 'Hooks and New Tunes: Contemporary Irish Dance Music in its Transnational Context', Ethnomusicology Ireland, 2/3 (2013), 38–60; Martin Tourish, In Process and Practice: The Development of an Archive of Explicit Stylistic Data for Irish Traditional Instrumental Music (PhD dissertation, Dublin Institute of Technology, 2013), https://arrow.tudublin.ie/appadoc/46/; Conor Caldwell, 'Did you hear about the poor aul travelling fiddler?': The Life and Music of John Doherty (PhD dissertation, Queens University Belfast, 2013).

those that focus on alternative melodic features such as cadential implications, tonality and modality, or the repetition of motives of other lengths, to build a more nuanced and granular view of this repertoire. This methodology will be introduced by reference to the first tune in the collection, 'Shandon Bells' (Example 1). The methodology is in three stages: annotation, extraction, and tabulation. In the first stage, the notated tune is annotated with alphabetical letter labels for the parts and the motives. Each part of the tune is assigned a capital-letter label, e.g., the first part is A, the second B etc. This describes the principal structure of the tune, which is customarily supported by part repetition.

Example 1. 'Shandon Bells', Gems #1



A lower-case letter is assigned to every bar e.g., the first bar is a, the second b, etc. The same letter is given to motives that are identical or near identical (5 of the 6 notes in original order): e.g., bars 1 and 4 (a). A superscript numeral is given to motives that are variations of a previous motive: e.g., bar 3 is a variation of bar 1 (a¹). The criteria for variations are calibrated to discern the melodic structure effectively in the later tabulated version. A high degree of similarity between motives is required to qualify a motive as a variation. A motive must meet at least one of the following criteria to qualify as a variation.

1. 1/2 to 2/3 similar to another motive, i.e., have 3-4 of the 6 notes in the original order

2. a transposition of another motive

Variations relate back to the source motive only. No variations of variations are indicated as they appear to have limited importance for the general melodic structure. (This should not suggest that more extensive motivic transformation is absent.) Where there may be a matter of interpretation, such as when a motive may be seen to be related to several preceding motives and/or variations, a label is chosen that is most helpful in understanding the melodic structure. In the present example, bar 3 qualifies as a variation of bar 1 as its first four notes are a transposition of those in bar 1, followed by the final two notes at their original pitch. Minor embellishments such as passing notes, grace notes or other ornamentations appear to have limited significance to the melodic

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structure and are not classed as variations. This alphanumeric label for the variation is retained should it occur again elsewhere in the tune.

The rhythmic and melodic configurations of the first two bars of each part define it as unique.¹⁹ These configurations will be referred to as characteristic material.²⁰ As every part begins with characteristic material, the lower-case letter labels revert to the start of the alphabet with each new part. Where a motive is repeated from an earlier part, the original motive label is used and prefixed with the capital letter denoting the originating part, e.g., Ad. This allows the reader to ascertain the quantity and origin of material that has been repeated from earlier parts. Most parts in this dataset exhibit a degree of endrhyme, where the end of the part is repeated from an earlier part. This nomenclature allows the reader to gauge the extent of end rhyme across a tune. Most parts employ conventionalized melodic formulae at cadential points, such as in the present example (AdAe). This will be referred to as conventional material.²¹ Some tunes, however, repeat an entire second phrase of an earlier part (e.g., 'Billy Barlow', tune no. 102, Part B; henceforth the nomenclature #102B will be used for tune and part references in *Gems*). Knowing the location of the original motive is helpful when considering tunes with more complex networks of self-reference that repeat motives outside of the conventional material (e.g., 'The Gold Ring', #12).

A: ab, a ¹ c; ab, de.
A ¹ : ab, a ¹ c; ab, de ¹ .
B: ab, cd; ab, AdAe ¹ .

Table 1. Extraction of motivic annotations of 'Shandon Bells', Gems #1

The motivic annotations are extracted to summarize the melodic structure of the tune (Table 1). Each part receives a new line so that the tune's structure can be conceived of in a vertical dimension, incidentally, mirroring an engraving convention in the original edition of *Gems*. As with motive variations, a part with a varied repeat receives a superscript numeral. There is but a slight alteration in the varied repeat of the present example, but for some tunes in the collection some *seconda volta* can be up to four bars in length and yield a different melodic structure (e.g., #41B/B¹). Punctuation marks are used to clarify the motivic summary: a colon separates the part label from the motive

¹⁹ Breathnach, 'Reels', 43.

²⁰ Use of the term is borrowed from William Caplin, Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven (New York: OUP, 1998), 253.

²¹ Use of the term is borrowed from Caplin, *Classical Form*, 254.

labels; a full stop indicates the end of the part, where there is normally a strong cadence; a semi-colon indicates the end of the first phrase, where a weaker cadence is normally implied; commas indicate the end of sub-phrases, which are frequently articulated by motivic repetition or a break in motivic repetition. The analytical methodology may end at this point, if the intention is to use these data for the analysis of a single tune, or it may be incorporated into a database through tabulation (Table 2).

Tune	Part	Structure
1	А	ab a¹c ab de
1	A^1	ab a ¹ c ab de ¹
1	В	ab cd ab AdAe ¹

Table 2. Tabulation of motivic structure in 'Shandon Bells', Gems #1

In this final stage of the process, the extracted data are tabulated in spreadsheet software, such as MS Excel or Google Sheets. The punctuation marks of the extracted motivic summary serve as 'separators' in spreadsheet software that will allow for efficient analysis using a pivot table, a tool within the software used to query, organize and summarize data or information between spreadsheets, tables, or databases. For example, the colon after the part label is used as a separator to create a column with the part letters only, using a 'text to column' function. This allows for a pivot-table query to count the number of parts and part variations in the dataset. The punctuation marks are now redundant owing to the column separation and are removed to adapt the data to pivot-table queries. The first column indicates the tune number in the collection, the second column is the part label, and the third column is the motivic structure. The tune number is crucial when grouping data automatically in the form of a pivot table to run higher-level analyses efficiently, for example, to calculate the number of parts per tune.

Standard Melodic Structures

A statistical analysis of these motivic summaries shows four standard melodic structures that may be observed in this dataset: period, sentence, hybrid, and allied. All are 8-bar melodic structures, which are divided into two 4-bar phrases, which are, in turn, divided into two 2-bar sub-phrases. They differ in the pattern of motivic repetition in each of their four sub-phrases. This conception of melodic structures is informed by scholarship on thematic types in the Classical period, namely by William Caplin in his

treatise *Classical Form*.²² In the present study, the use of these terms refers to patterns of repetition in the melodic structure only. It is not intended to suggest an historical link between the Classical repertoire and the dance repertoire of Irish traditional music, notwithstanding their roughly contemporaneous inception in the late-eighteenth century.²³ As these terms are borrowed from their original context in relation to the Classical style, the reader should expect significant differences in conception in relation to melodic structure and formal function in their adaption to Irish traditional music. Examples of these structures may be observed in the first two tunes in the collection, 'Shandon Bells' and 'The Pipers' Picnic'.

Period Structure

In the period, the first phrase is called the antecedent and the second phrase is called the consequent. The B part of 'Shandon Bells' is an example of the period (Table 3). Bars 1–2 of the antecedent phrase are a two-bar sub-phrase containing a 'basic idea'. This first 'basic idea' contains the characteristic material of the part. In #1B, this basic idea consists of a triadic ascent and descent on the tonic chord with a syncopated rhythm, an upper auxiliary note, and repeated notes at the apex of the melodic contour. This leads to a 'contrasting idea' in the second half of the antecedent phrase in bars 3–4. This idea contrasts with the basic idea in the sense that it is not a repetition. (The degree of contrast between these sub-phrases varies greatly among occurrences of the period.) In the present example, the contrasting idea outlines a new harmony on the dominant chord in a gesture that alternates the 3rd and 5th with the repeated root, the nadir of the melodic contour, leading to an ascent with a lower auxiliary note and a passing note to the dominant seventh.

²² Caplin, *Classical Form*, 49–58.

²³ Sean Williams, *Focus: Irish Traditional Music* (New York: Routledge, 2010), 145.

Part	Period							
Phrase		А	ntecedent	t	Consequent			
Sub-phrase	Basic	asic Idea Contrasting Idea			Basic	Idea	New Ma	aterial
Motive	а	b	с	d	а	b	Ad	Ae ¹

Table 3. Period structure in 'Shandon Bells', Gems #1B

The consequent phrase repeats material from the start of the antecedent; the basic idea, or a variation of it, returns in bars 5–6. In the present example, the basic idea is repeated exactly. The fourth sub-phrase contains new material that leads to a cadence. This final sub-phrase frequently uses conventional material and is likely to be repeated in multiple parts. These characteristics are to be seen in the present example. Usually, the consequent phrase repeats the antecedent phrase but alters the second sub-phrase to create a stronger sense of cadence to conclude the period. The implied harmony in the present example is representative of this scheme, with the antecedent phrase ending on V (imperfect cadence) and the consequent phrase ending on I (perfect cadence).

Example 2. 'The Pipers' Picnic', Gems #2



Sentence Structure

The period may be contrasted with the sentence, an example of which may be observed in the B part of 'The Pipers' Picnic' #2B (Example 2). The first phrase is called the presentation and the second is called the continuation (Table 4). The presentation phrase consists of a repeated 2-bar basic idea (bars 9–10, #2B: ab). This basic idea may be repeated either exactly or sequentially, as in the present example, where the basic idea is transposed down one scale degree. Deviations from this norm are tolerated; it is sufficient for one motive of a basic idea to be repeated to qualify as a presentation (e.g., 'Denis Delaney' #7C or, as we shall see, 'The Old Grey Goose' #214A). The repeated motive, however, should be in the same corresponding bar of the sub-phrase, e.g., both in the first bar of each sub-phrase. The continuation breaks the established 2-bar pattern of motivic repetition with new material. The final sub-phrase frequently repeats conventional material from an earlier part, as in the present example.

Part	Sentence							
Phrase	Presentation				Continuation			n
Sub-phrase	Bas	Basic Idea Basic Idea			New N	laterial	New I	Material
Motive	а	b	a ¹	b^1	С	d	e	Ae

Table 4. Sentence structure in 'The Pipers' Picnic', Gems #2B

Hybrid Structure

A prevalent melodic structure in the dataset may be seen in the A part of 'Shandon Bells' #1A (Table 5). The first phrase has the ground plan of a presentation, in that the second sub-phrase repeats at least one motive from the basic idea, in this instance it is heard in transposition (a¹). The second phrase has the characteristics of a consequent, in that it repeats the material of the first phrase (ab) before new material leads to a cadence (de). This melodic structure is a fusion of the presentation phrase of the sentence and the consequent phrase of the period and will thus be referred to as a 'hybrid'. There is a considerable difference between the usage of the term 'hybrid' as it applies to the Classical repertoire and as it applies to this dataset. In the former, Caplin identified four hybrid structures that blend sentential and periodic characteristics and, though allowing for the theoretical possibility of the Presentation + Consequent structure, noted its absence in the Classical repertoire.²⁴ The opposite is the case in this dataset, where Caplin's four hybrid structures appear to be absent but the Presentation + Consequent hybrid structure is common. Accordingly, the term 'hybrid' will refer only to the latter structure in this analysis.

²⁴ Caplin, *Classical Form*, 63.

Part	Hybrid							
Phrase		Presentation			Consequent			
Sub-phrase	Bas	ic Idea	c Idea Basic Idea		Bas	sic Idea	New	Material
Motive	а	b	a ¹	С	а	b	d	e

Table 5. Hybrid structure in 'Shandon Bells', Gems #1A

Allied Structure

A structure with two presentation phrases may be observed in the A part of 'The Piper's Picnic' #2A (Example 2). Motive Aa is repeated exactly in bars 3 and 5, and in variation in bar 7 (Table 6). This Presentation + Presentation structure comprises two 4-bar phrases in which at least one motive (or its variation) from the basic idea is repeated in the same location in every sub-phrase. This Presentation + Presentation structure is not mentioned by Caplin as a theoretical possibility in relation to the Classical repertoire. The term 'allied' will be used to refer to this melodic structure for this dataset. This is not a term used by Caplin and has been newly coined for the present research. This is a relatively rare melodic structure in the double-jigs of *Gems*, but is predominant for its hop or slip jigs, accounting for 60% of the structures in this classification.

Part	Allied							
Phrase	Presentation			Presentation			l	
Sub-phrase	Basic	asic Idea Basic Idea		Basic	: Idea	Basic	Idea	
Motive	а	b	а	С	а	b	a ¹	d

Table 6. Allied structure in 'The Piper's Picnic', Gems #2A

Non-Standard Structures

Non-standard structures are those which do not conform to the patterns of motivic repetition described in the four standard structures. These account for 120 melodic structures (13%) of this dataset. They are likely, nevertheless, to contain much motivic repetition and frequently yield interesting patterns of self-reference. 'The Yellow Flail'

#4 uses non-standard for its A and C parts (Example 3). In the A part, each motive is unique except bar 6, which is a variation of bar 3. Bars 3 and 6 are not corresponding locations in each sub-phrase: bar 3 is the first bar of a sub-phrase and bar 6 is the second bar of a sub-phrase. This is unusual as motivic repetition is likely to occur at corresponding points of phrases or sub-phrases. In the C part, the characteristic material is heard, then a variation of the Aa motive, which is absent from the corresponding location in the A part, and the rest is an exact repeat of the A part. This yields a melodic structure in which every motive is unique, despite the extensive motivic repetition from the A part.

Example 3. Non-standard melodic structures in 'The Yellow Flail', Gems #4A and #4C



General Findings

The predominance of certain melodic structures can be demonstrated statistically using the tabulated data (Figure 1). Parts are not always synonymous with melodic structures, as many parts have a varied repeat that may produce an alternative ground plan of motivic repetition. The 365 double jigs have 853 parts, which give a total of 937 melodic structures. Of this total, most may be identified as one of the four standard patterns (87%). The period and hybrid predominate, and these occur with roughly equal frequency (period = 39%, hybrid = 35%). The sentence occurs much less frequently but is still a significant minority, accounting for 11% overall. The allied occurs rarely in this dataset (2%). The non-standard account for a significant minority (13%).

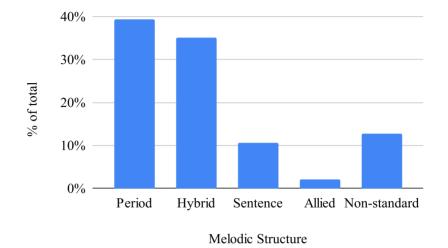
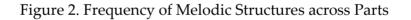
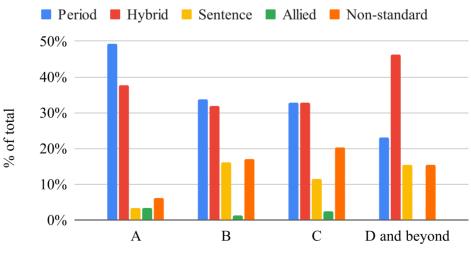


Figure 1. Frequency of Melodic Structures

2-part double jigs are the majority (80%), while 3-part double jigs are a significant minority (14%). Double jigs with 4 parts and more (6%) occur with decreasing frequency as the number of parts increases to an upper limit of 9 parts (#257). The prevalence of each melodic structure changes across parts (Figure 2). The period, the single most frequent structure in A parts, decreases in frequency in later parts, while the frequency of all other structures increases. The period and hybrid occur with roughly equal frequency in B and C parts, but the hybrid becomes more frequent in D parts and beyond.





Part

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The A parts are most likely to be cast in a standard melodic structure (94%): nearly half are period (49%) and a large proportion are hybrid (38%). B parts are more likely to be sentence and non-standard compared with A parts, perhaps indicating a preference for variety or contrast in terms of melodic structure between these parts. This may imply that the period is the primary melodic structure and later parts may be developed by employing more repetition through the hybrid or more variety through use of the sentence or non-standard. The allied do not appear to be closely aligned with any specific parts; none occur in D parts or beyond.

Motivic Repetition/Variation

Most tunes display a high degree of motivic repetition both from within the originating part, henceforth called internal repetition, and from outside the originating part, henceforth called external repetition. In many tunes, particularly those with more than 3 parts, internal and external repetition combine to create complex networks of motivic self-reference. 'The Gold Ring' (#12), one of two 7-part double-jigs in this collection, is an example of such a network and demonstrates an exceptional reliance on motivic repetition for its effect (Example 4a). The A part has only two bars of unique material; the rest is derived from the opening bar, either through exact repetition or variation. The patterns of repetition and variation combine to give an allied structure, as at least one motive from the basic idea is heard in the corresponding bar of each sub-phrase. The opening motive (Aa) is pervasive. It is repeated exactly in bars 3 and 5 and in variation in bars 2, 4, 6 and 8. The first variation of this motive serves as the final bar for all parts. Furthermore, its variations are present at the endings of phrases or sub-phrases in all parts except C.

The B part is allied and contains only one bar of characteristic material, with the even-numbered bars repeating their equivalents in the A part, as well as its entire final sub-phrase. The C part is also allied. Its first presentation phrase contains a two-bar basic idea that is repeated in exact transposition down a tone, shifting from outlining a G-major chord to an F-major chord. This presentation phrase is repeated, and the final bar is altered to repeat the Aa¹ motive. The D section is hybrid, even though the repetition of the basic idea is somewhat obscured owing to the exact repetition of the first bar in the second and third bars. The second bar of each sub-phrase repeats the corresponding bars from the A part.

The E part may be analysed as a deviation from the sentence. In the presentation phrase, characteristic material is alternated with corresponding motives from the A part. In the continuation phrase, motive Eb is fragmented from the second sub-phrase and is repeated. Though the first and second basic ideas of the presentation are not repetitions, this structure exhibits characteristic sentential features, such as the presentation phrase comprised of closely related 2-bar sub-phrases and a continuation phrase that generates

material through fragmentation. The F part is a period that employs corresponding motives from the A part at the end of each sub-phrase. The G part is also a period but one that includes external repetition from the preceding part (Fc).



Example 4a. 'The Gold Ring', Gems #12



Example 4b. 'The Pharroh or War March', SITM #6060

Although the pattern of motivic repetition is complex and varied in each part of 'The Gold Ring', each part still falls within the parameters of a standard melodic structure. The high degree of repetition may be summarized using the extracted motivic summaries (Table 7). Henceforth, 'repetition' will refer to both exact repetition and repetition through variation, unless otherwise stated. The amount of internal repetition may be calculated for each part by counting each repeated lowercase letter not preceded by a capital letter; the amount of external repetition by counting each capital letter. The total amount of repetition is the sum of the internal and external repetition. The A parts, naturally, will not contain external repetition. In this example, 6 of the 8 motives in the A part are repetitions; 7 of the 8 motives in the B part are repetitions, and so on.

		Melodic	Internal	External	Total
		Structure	Repetition	Repetition	Repetition
A:	aa ¹ , aa ² , aa ³ , ba ¹	Allied	Allied 6		6
B:	aAa ¹ , aAa ² ; aAa ³ , AbAa ¹	Allied	2	5	7
C:	ab, a ¹ b ¹ ; ab, a ² Aa ¹	Allied	5	1	6
D:	aa, aAa ¹ ; aa, bAa ¹	Hybrid	4	2	6
E:	aAa ¹ , bAa ¹ ; bb, AbAa ¹	Sentence	2	4	6
F:	ab, cAa²; ab, cAa¹	Period	3	2	5
G:	ab, FcAa ² ; ab, FcAa ¹	Period	2	4	6

Table 7. Motivic repetition in 'The Gold Ring'

Of a total of 56 motives in the tune, 42 are repetitions (75%). This exceptionally high degree of motivic repetition may be explained by reference to the tune's precursor, 'Pharroh or War March' from Bunting's third collection of *Ancient Irish Music* (Example 4b). O'Neill acknowledged this precursor tune in his introduction to *Gems*.²⁵ Elsewhere, he noted that 'The Gold Ring' was obtained by John Ennis, possibly indicating that some light espionage was involved and that the transmission from source performance to dictated version may have been complicated by other factors.²⁶ O'Neill noted that the tune 'consists of seven strains, although the "Pharroh or War March" from which it has been evolved contains nine'.²⁷

The similarities between this tune and its precursor extend beyond its surface melodic detail to its structure. The precursor tune uses parts of 4-bars length, which are marked with repeats. The repetition of these 4-bar parts creates 8-bar parts with two identical phrases and, consequently, a high degree of motivic repetition. Most parts in 'The Pharroh' are comprised of two similar basic ideas. The repetition of these 4-bar

²⁵ O'Neill, Gems, 4.

²⁶ Ennis, a flute player and piper from Co. Kildare, collected tunes using the undercover means perhaps familiar to him in his role as a patrolman in the Chicago police force: 'Suspecting that several pet tunes were withheld from us by a couple of good players, he [Ennis] conceived the scheme of ingratiating himself with the musicians. Affecting unconcern, he contrived to memorize the treasured tunes, and then had them promptly transferred to James O'Neill's notebook'. Francis O'Neill, *Irish Folk Music: A Fascinating Hobby* (Chicago, IL: Lyon & Healy, 1910), 37.

²⁷ O'Neill, *Hobby*, 89.

parts, therefore, may account for the three consecutive allied structures in parts A–C, which are otherwise rare in this collection. The derivation of 'The Gold Ring' from the repetition of 4-bar parts from 'The Pharroh' should mean that each part has a symmetrical structure, such as a period or allied. The D part, with its hybrid structure, and E part, with its sentence-like structure, are incongruous in this regard and may be later mutations during the tune's 'evolution' from its precursor.

Motivic Repetition/Variation and Number of Parts

The amount of repetition can be calculated for tunes that share the same number of parts (Figure 3). There is a strong positive correlation between the number of parts in a tune and the amount of repetition. While the average amount of internal repetition remains relatively stable, the amount of external repetition doubles from the average of the 2-part tunes to the 9-part tune. This is to be expected as external repetition is not limited to material from the A part (as we have seen in 'The Gold Ring') but may repeat material from all earlier parts. The greater the number of earlier parts, the greater the stock of motives from which to draw. The average amount of total repetitions underscores the importance of the patterns, internal and external, in which the repetitions are configured. In performance, with the customary repetition of each part and of the tune itself, the average amount of total repetition will be vastly inflated.

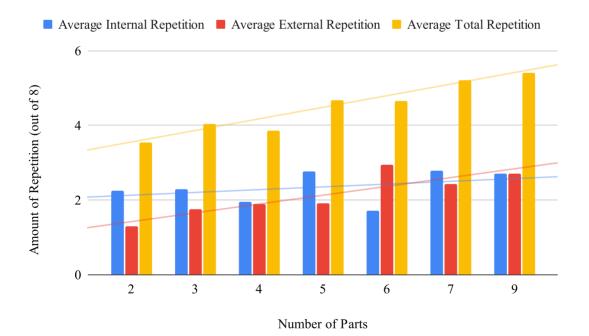


Figure 3. Amount of Repetition vs Number of Parts in a Tune

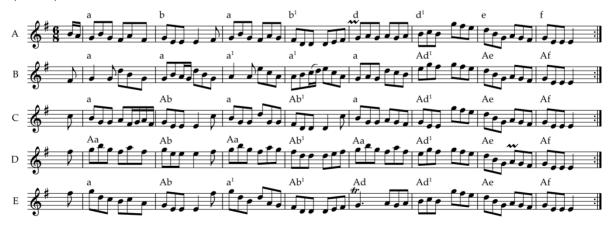
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The correlation between the amount of repetition and parts per tune should not be interpreted as causality. There is no evidence to suggest that tunes were conceived of as a unified whole in a single process of composition. Indeed, a printed tune may have been assembled through an arbitrary process that owes more to historical happenstance and editorial judgement than to composer intent or the authority of a single source. Such a process of assembly, from a composite of printed, performance, and manuscript sources, may be seen in relation to 'The Old Grey Goose' #214, Example 5a.



Example 5a. 'The Old Grey Goose', Gems #214

Example 5b. 'We'll All Take Coach and Trip it Away', *Sources of Irish Traditional Music* (*SITM*) #3916



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Example 5c. 'Breeches Loose', SITM #1126



Example 5d. 'The Britches Maker', SITM #3664



Example 5e. 'Lán bheódha (All alive)', SITM #6720



Like 'The Gold Ring', this tune is remarkable for its high degree of external repetition. The last three bars of the A part are repeated in the last three bars of the other parts. The tune also uses a high degree of internal repetition in the standard melodic structures of the sentence (A and F) and hybrid (B, D–E). The C part alone uses non-standard: its first phrase does not repeat an element of the basic idea; its second phrase is a modified and transposed version of the second phrase of the A part. That this part is exceptional in terms of melodic structure may suggest that it was transcribed from an idiolectic performance or a once-off variation. Tellingly, we learn from O'Neill that the only source of the C part was the celebrated piper, John Hicks.²⁸ O'Neill also discussed the origin of this setting in his introduction to *Gems*:

An old time jig named 'We'll all take a coach and trip it away,' printed in 'O'Farrell's National Irish Music', 1797–1800 has been developed from a simple two-part jig into the present setting, the 'Old Grey Goose', No. 214 in this book. The first and third parts only, were played by John Hicks, an excellent Irish piper and a native of Kildare, while in Chicago in 1880. James Kennedy, a native of Leitrim, played the first and second parts of the present tune, being a version that he learned

²⁸ For an account of Hicks's life, see Francis O'Neill, 'Famous Pipers who Flourished Principally in the Second Half of the Nineteenth Century', in Francis O'Neill, *Irish Minstrels and Musicians* (Chicago, IL: Lyon & Healy, 1913), 224–6. For an account of Hicks's visit to Chicago, see O'Neill, *Hobby*, 21–3.

from his father many years before, and which very closely followed O'Farrell's setting. While James O'Neill, our scribe, was noting down the three parts mentioned from my dictation, his memory was aroused to the fact that he had a setting of this strain among his father's manuscripts. A slight re-arrangement resulted in a harmonious six-part whole, which will compare favourably with any double jig in existence.²⁹

This jig is in five parts in the O'Farrell Collection, and not in two parts as stated by O'Neill (Example 5b). The versions are virtually identical, apart from the interpolation of the C part in 'The Old Grey Goose'. All parts use a standard melodic structure: the A and E parts are sentence and the B to D parts are hybrid. 'The Old Grey Goose' shows that O'Neill chose to create a composite tune that did not exist hitherto, despite having access to concordances in printed and manuscript sources. O'Neill thought this composite version worthy of preservation and propagation owing to the cachet of its source in Hicks's performance and his own judgement of its merit. The interpolation from Hicks's performance evidently did not prevent its perception as a 'harmonious six-part whole', despite its inclusion of an anomalous melodic structure.

The interpolated part is also anomalous in the tunes that have been identified as related to 'We'll take the Coach and Trip it Away' (Table 8).³⁰ All parts in these related tunes have standard melodic structures. Although there are sometimes significant differences in surface motivic detail (Examples 5a–5e), all share a marked similarity with respect to melodic structure. 'Lán bheódha' may be considered to be more closely related to 'We'll All Take the Coach and Trip it Away' and to 'The Old Grey Goose' owing to the shared order of their first two parts (sentence-hybrid) when compared to the related tunes from Scottish sources, 'Breeches Loose' and 'The Breeches Maker' (hybrid-hybrid and period-hybrid respectively).³¹ This suggests that melodic structure is more likely to be altered when the same tune is maintained in different regional repertoires.

²⁹ O'Neill, *Gems*, iii.

³⁰ [anon.] O'Farrell (ed.), 'We'll All Take the Coach and Trip it Away', in O'Farrell's Collection of National Irish Music for the Union Pipes (London, 1804), 38a. Reprinted in Fleischmann (ed.), Sources, 718.

³¹ John Johnson (ed.), 'Breeches Loose', in A Choice Collection of 200 Favourite Country Dances, 5 (London, 1750), 99. Reprinted in Fleischmann (ed.), Sources, 214; Niel Gow (ed.), 'The Breeches Maker', in A Fourth Collection of Strathspey Reels (Edinburgh: c.1800), 30d. Reprinted in Fleischmann (ed.), Sources, 666; George Petrie (ed.), 'Lán bheódha (All alive)', in The Petrie Collection of the Ancient Music of Ireland, 1 (Dublin, 1855), 41. Reprinted in Fleischmann (ed.), Sources, 1219.

The Old Grey Goose	We'll All Take the Coach and Trip it Away	Breeches Loose	The Breeches Maker	Lán bheódha
A: Sentence	A: Sentence	A: Hybrid	A: Period	A: Sentence
B: Hybrid	B: Hybrid	B: Hybrid	B: Hybrid	B: Hybrid
C: Non-standard				
D: Hybrid	C: Hybrid			
E: Hybrid	D: Hybrid			
F: Sentence	E: Sentence			

Table 8. Comparison of melodic structure in 'The Old Grey Goose' with its related tunes

O'Neill's invention was not limited to assembling the tune from composite sources; it extended to renaming the tune as well. James Kennedy knew the tune as 'The Geese in the Bog' but O'Neill thought that this name was too similar to another jig:

... a different jig known to a limited extent and printed in an American publication was called 'The Geese in the Bogs.' A somewhat similar tune under the same name is also printed in the Petrie collections. Even though Kennedy was possibly right, and there be some who say he was, a change of name was deemed advisable. To preserve to some extent the connection of the historic and popular fowl with our prize, it was christened 'The Old Grey Goose'.³²

This discussion of 'The Old Grey Goose' serves to highlight the idiosyncrasies of *Gems* as a dataset. It is not, and nor did O'Neill claim it to be, an exact representation of the contemporary performance tradition at the turn of the twentieth century, let alone for the present day. These idiosyncrasies confirm that these sources should be examined using statistical methods to moderate any misleading perceptions that may be caused by exceptional tunes.

Notwithstanding the idiosyncratic circumstances of its creation, O'Neill's notated version of 'The Old Grey Goose' proved highly influential owing to its dissemination in

³² O'Neill, *Hobby*, 90–1.

a 78rpm recording by the famed fiddle player Michael Coleman. Originally from Co. Sligo, Coleman settled in the United States and, in the 1920s, began to record commercially on leading American labels and to broadcast frequently on radio stations.³³ His recording of the tune is faithful to the printed versions in the O'Neill collections with only minor additional ornaments, double-stops, and variations. Coleman's recordings were imported back to Ireland where his tune selections and settings became ingrained in the tradition as they were adopted by musicians (Table 9).

Performer/s	Year	Recording
Michael Coleman and Ed Geoghan	1928	'The Old Grey Goose'
Andy McGann and Felix Dolan	1966	A Tribute to Michael Coleman
Sean McGuire and Joe Burke	1971	Two Champions
Joe Burke and Charlie Lennon	1973	Traditional Music of Ireland
John Kelly and James Kelly	1976	The Best of Traditional Irish Music
Mícheál Ó Súilleabháin	1987	The Dolphin's Way

Table 9. Selected Recordings of 'The Old Grey Goose'

All later recordings include Hicks's C part. Its authenticity had been doubly legitimated, first by the O'Neill collections and then by the Coleman recording. The fiddle player Andy McGann was as faithful as his teacher Michael Coleman was to the non-standard structure of the C part of 'The Old Grey Goose' when he recorded it in a *Tribute to Michael Coleman*.³⁴ Also featured on this record was the accordion player Joe Burke, who himself recorded the jig with fiddle player Sean Maguire in 1971.³⁵ On this

³³ All biographical information on Coleman is derived from Harry Bradshaw, 'Coleman, Michael', in Encyclopaedia of Music in Ireland, 214–25.

³⁴ Michael Coleman, 'The Old Grey Goose', Columbia (1928), (Vinyl Record, 78 rpm); reissued Michael Coleman 1891–1945 *Ceoltóir Mórthionchair na hAoise: Ireland's Most Influential Traditional Musician of the* 20th Century, Gael-Linn/Viva Voce (1992), (CD) CEFCD 161.

³⁵ Sean McGuire and Joe Burke, 'The Old Grey Goose', *Two Champions, Outlet* (1971), (Vinyl Record, 33rpm) SOLP 1014.

recording, Burke and Maguire consistently disagree on the melodic structure of the C part, as Maguire employs the non-standard of the printed version while Burke employs a period, with the first sub-phrase repeated at the start of the second phrase. Burke continued to employ a period for this part when he recorded the jig again two years later with piano accompaniment by Charlie Lennon.³⁶

Brothers John and James Kelly recorded the jig in 1976.³⁷ Both brothers use a period for the first hearing of the C part, as in Burke's recordings, though in the repeat of the part, one repeats a period exactly while the other uses a non-standard. In the repeat of the tune, the brothers use a period for both hearings. In Mícheál Ó Súilleabháin's recording of the tune, the melodic structures can still be readily discerned alongside his extensive creative departures from the printed version.³⁸ He consistently employs a period for the C part. In his analytical commentary on 'The Old Grey Goose', Ó Súilleabháin noted the tendency of players to deviate from the printed version and to repeat the first sub-phrase at the start of the second phrase (i.e. a period) and clarified this in a diagram that showed 'an amalgam of the improvisational possibilities which I have heard in this double jig as performed by many players over the past fifteen years'.³⁹ This diagram shows that, indeed, the period version appears literally to precede the non-standard version in terms of importance. The recordings of Joe Burke, the Kelly brothers, and Ó Súilleabháin himself testify to the prevalence of this improvisational possibility.

These aural analyses of selected historical recordings of 'The Old Grey Goose' demonstrate that a variety of simultaneous melodic structures may be tolerated in acclaimed recordings made by esteemed performers. Performers may choose to vary the melodic structure even between repetitions of part and tune. There appears to be a tendency for the part with a non-standard melodic structure, such as the C part, to revert to a standard melodic structure, in this case, the period. This tendency may be attributed to the force of these standard structures, which are an integral feature of Irish traditional music, and which serve to formulate critical melodic expectations in a tune. They allow the motivic material to be learned and retained easily, which is crucial in a

³⁶ Joe Burke and Charlie Lennon, 'The Old Grey Goose', *Traditional Music of Ireland*, Shaskeen (1973), (Vinyl Record, 33rpm) OS-361.

³⁷ John Kelly and James Kelly, 'The Old Grey Goose', John & James Kelly: The Best of Traditional Irish Music, Tara (1976), (Vinyl Record, 33rpm) TARA 1008; Barry Taylor, 'Kelly Family', in Encyclopaedia of Music in Ireland, 558–9.

³⁸ Micheal Ó Suilleabhain, 'An tSeanghé Liath (The Old Grey Goose)', *The Dolphin's Way*, Venture (1987), (CD) CDVE 1.

³⁹ Ó Súilleabháin, 'Process', 127–8.

predominantly oral musical culture. Experienced performers of Irish traditional music have a deep understanding of these standard melodic structures, which they use to facilitate the learning process to predict where motivic repetition is likely to occur. Such a learning process is depicted in a fictional portrayal of a fiddle player performing the tune for a teacher who had no access to recorded transmission via a gramophone and was not musically literate:

He [the teacher] was awful quick to pick up a tune. He was like a bone setter reaching in to find what was important to him and knitting it all together. It was never just the notes with him—it was the notes between the notes. I remember once playing 'The Old Grey Goose' for him, there's six or seven parts to it. 'O Lord', he says, 'there's fistfuls of music in that jig. Fistfuls'.⁴⁰

The analogy of the teacher to a bone setter 'reaching in to find what was important to him and knitting it all together' refers to the teacher's experienced identification of the important characteristic and conventional material, the probable ground plan of internal motivic repetition in standard melodic structures and the likelihood of extensive external repetition in a tune with many parts.

Summary and Recommendations for Further Research

The general findings for the double jigs in *Gems* may be compared with those from other dance-tune classifications, like slip jigs, reels, hornpipes, etc. A preliminary analysis suggests that the standard melodic structures are equally prevalent in the other tune classifications. Some tune classifications have distinctive proportions of melodic structures. For example, hop and slip jigs exclusively consist of standard structures (60% allied, 22% hybrid, 18% period). Reels have a significant number of allied structures (24%), whereas hornpipes have none. Double jigs and single jigs, however, are nearly indistinguishable by the proportions of their melodic structures. O'Neill understood tune classifications to be artificial distinctions that were chiefly dependent on tempo and rhythmic differences in performance:

The classification of the Melodies into distinctive divisions may to a certain extent be considered arbitrary. All double (or six-eight time) jigs when played in slower time serve as excellent quick steps or marches, while most jigs and many reels and hornpipes were originally airs to which songs were sung.⁴¹

A comprehensive comparative analysis of *Gems* could assess this statement to ascertain if tune classifications have a basis in melodic structure, in addition to tempo and rhythmic characteristics. Similar studies of other historical collections may be compared to moderate the impression made by any one publication, no matter how

⁴⁰ Peter Woods, *Living Note: The Heartbeat of Irish Music* (Dublin: O'Brien Press, 1996), 43.

⁴¹ O'Neill, Music of Ireland, i.

authoritative or influential, perhaps one created by an overzealous editor prone to homogenisation. For example, *O'Neill's Music of Ireland* may be compared with *The Petrie Collection of Irish Music*, which are contemporaneous and comparable in size.⁴² Collections from numerous historical eras may be compared to give an understanding of the varying prevalence of melodic structures across time. For example, the aforementioned collections published at the start of the twentieth century may be compared with similarly comprehensive collections published in the late twentieth century, such as Breandán Breathnach's *Ceol Rince na hÉireann* (1963–85).

Collections that are representative of repertoire from specific regions may be compared to assess if regional performance practice is simply a question of style, or if there are also preferences for certain types of melodic structure. For example, repertoire peculiar to regions in the north-west of Ireland, such as counties Donegal and Tyrone, as collected in *The Northern Fiddler*,⁴³ may be compared with that of south-west Ireland, specifically the distinctive Sliabh Luachra tradition which covers east Kerry and north-west Cork.⁴⁴ The analytical methodology used in the present article may be adapted for online resources. The website thesession.org is an open-collaborative online archive maintained by a community of volunteer editors on which players can find tunes in various notated formats, locate a *seisiún* (an informal gathering for collective performance), and engage in discussions about the music.⁴⁵ This extensive archive of user-generated settings also collects every tune in a form of letter-notation that could feasibly be analysed according to the proposed methodology using a computer algorithm and without extensive human intervention, thus allowing an insight into current practice that would be both wide-reaching and constantly updating.⁴⁶

This article has examined the double jigs in O'Neill's *1001 Gems* using an analytical methodology devised to show melodic structures that are created through motivic repetition. It has identified four standard melodic structures: period, sentence, hybrid, and allied. It has considered the repetition and variation of motives both within their originating part (internal repetition) and outside their originating part (external repetition) and shows that as the number of parts increases, so too does the average

⁴² George Petrie, *The Complete Collection of Irish Music*, Charles Villiers Stanford (ed.) (London: Boosey, 1902; reprinted Cork: Cork University Press, 2002).

⁴³ Allen Feldman and Eamonn O'Doherty, *The Northern Fiddler: Music and Musicians of Donegal and Tyrone* (Belfast: Blackstaff Press, 1980).

⁴⁴ David Kearney, *Towards a Regional Understanding of Irish Traditional* Music (PhD dissertation, University College Cork, 2009), <u>https://cora.ucc.ie/handle/10468/977</u>

^{45 &}lt;u>https://thesession.org</u>

⁴⁶ See Padraic Lavin, A Similarity Matrix for Irish Traditional Dance Music (PhD dissertation, Technological University Dublin, 2010), <u>https://arrow.tudublin.ie/scschcomdis/30</u>

amount of repetition. It has demonstrated that nearly half of the motives in the dataset are repetitions or variations, which underscores the importance of the patterns of repetition. Motivic analyses of 'The Gold Ring' and 'The Old Grey Goose' serve as examples of how this analytical methodology may be used to examine a tune by itself and in relation to its precursors, in conjunction with primary and secondary sources and aural analyses. Owing to the regular ground plan of Irish traditional dance music, this study may be widened to other tune classifications, historical collections, or repertoires.

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