

Altered Dynamics and Instrumentation at the Onset of Recapitulation in the Nineteenth-Century Symphony

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Introduction

In standard sonata form, the onset of recapitulation exactly quotes the beginning of the exposition, but composers also frequently alter the main theme upon its return. Indeed, Charles Rosen calls the recapitulation of the main theme «the point of greatest freedom in a sonata form» [Rosen 1980, 154]. In discussing this freedom, William Caplin distinguishes between structural changes, which affect primary parameters, and ornamental changes, which involve secondary ones [Caplin 1998, 161]. My paper examines composers' handling of two secondary parameters – dynamic markings and instrumental density – at the beginning of the recapitulation in the nineteenth-century symphonic repertoire. In order to analyse a large number of works, a system of classification for recapitulatory alterations is necessary. In general terms, the alterations fall into four broad types: similar, intensified, attenuated, and contradictory. After explaining this classification system in detail, the paper gives the results of an analytical survey of 483 sonata-form movements from 282 symphonies dating from the years 1800 to 1899. Similar and intensified recapitulations are most common, with preferences changing over time. Until about the 1840s, similar recapitulations were most common, but from around the 1860s on, intensified returns became the default choice.

Previous analyses of recapitulatory alterations have most often dealt with the primary parameters, especially melodic-motivic material and key. Books about sonata form often explain these alterations to primary features in detail [*ibid.*, 163-175; Hepokoski-Darcy 2006, 255-280]. Frequent alterations include the omission of parts (or even all) of the main theme, the fusion of sections that were separate in the exposition, and changes of mode or key. Rearranging the order of themes in the recapitulation may result in a "mirror" or "reversed" recapitulation [Rosen 1980, 97; Bonds 1988, 217-224; Jackson 1996], although some analysts prefer to place the later return of main theme material within the coda rather than in the recapitulation [Caplin 1998, 173-174; Hepokoski-Darcy 2006, 382-386]. Several studies focus on Franz Joseph Haydn's reworking of expositional material in his recapitulations [Haimo 1988; Larson 2003; Neuwirth 2010; Mastic 2015], and this aspect of the music of Ludwig van Beethoven has also received some attention [Kamien 1976]. The composer best known for foreign-key recapitulations is Franz Schubert [Coren 1974; Clark 2011, 221-228].

Although no previous study has treated dynamics and instrumentation at the beginning of the recapitulation as a main topic, analysts do very often mention these features briefly in other studies. For example, many have observed Ludwig van Beethoven's tendency to begin a main theme quietly in the exposition, then bring it back with a loud dynamic in the recapitulation [Kerman *et al.* 2015, §13; Hepokoski-Darcy 2006, 353; Brown 2002, 445-446; Richards 2011, 236-238]. Brahms often obscures the division between development and recapitulation; a lower dynamic marking for the recapitulation of the main theme than was present at the beginning of the exposition may aid in the blurring of this boundary [Smith 1994; Reddick 2010]. Many other composers also apply ornamental changes to the recapitulations of their main themes, with analysts typically giving a passing comment on the change while discussing other more structural parameters in greater depth.

Classification System

In analysis of recapitulatory alterations in individual musical works, a nuanced description of changes to secondary parameters would be appropriate, with techniques tailored to the particulars of each work. For the present corpus study, however, a system of categories is more suitable. Since my research concentrates on dynamic markings and orchestration, this classification scheme does not attempt to deal with alterations to primary parameters such as key or harmony. In order to streamline the analytical process and avoid the unnecessary proliferation of categories, I reduce the complexity of the secondary parameters to binary oppositions: louder versus quieter for dynamics and denser versus sparser for instrumental density. "Instrumental density" essentially refers to the relative number of instrumental parts present in an orchestral texture.

As a starting point for dynamics, I describe the beginning of an exposition as "quiet" (abbreviated to "Q") if it is *mezzo-piano* or quieter, and "loud" (abbreviated to "L") if it is *mezzo-forte* or louder. Different instruments may have different dynamic markings, and in such cases I choose one of the markings as the principal, underlying loudness level—usually the one that occurs in the most instruments. If the dynamic alteration to the beginning of the recapitulation crosses the boundary between *mezzo-piano* and *mezzo-forte*, "loud" (L) and "quiet" (Q) as descriptors for the recapitulation suffice to show the contrast. If the change to the dynamics is more subtle, remaining on one side of the boundary, I use the modifiers "less" (abbreviated to "l") and "-er" (abbreviated to "r"). For instance, if an exposition begins *piano* but the recapitulation begins *pianissimo*, the alteration is from "quiet to quieter", abbreviated "Q/QR". Or, if a main theme begins at *pianissimo* in the exposition and *piano* in the recapitulation, the alteration is from "quiet to less quiet", abbreviated "Q/lQ".

For instrumental density, there is no clear midpoint between the extremes of *solo* and *tutti*. I therefore do not attempt to analyse whether an exposition begins densely or sparsely. Instead, I only consider whether the recapitulation begins relatively denser or sparser compared to the beginning of the exposition. I abbreviate denser as "+" and sparser as "-", adding these symbols to the abbreviation of the dynamic markings. If the instrumental density at the onset of recapitulation is unaltered, I use the symbol "=", and if it is only slightly altered I use an asterisk.

Using this classification system, the various parameters combine in 32 ways, as summarized in Tab 1. To simplify, I organize the categories into four groups: similar, intensified, attenuated, and contradictory. If the beginning of the recapitulation has the same dynamics and similar instrumental density to the beginning of the exposition, it is "similar". "Intensified" recapitulations involve increases in dynamics, instrumental density, or both. Decreases in dynamics, instrumental density, or both, result in an "attenuated" moment of return. And of course, alterations to dynamics and instrumental density may also work in opposite, or "contradictory", directions.

Similar	Intensified	Attenuated	Contradictory
L/L=	L/Lr+	L/L-	L/IL+
Q/Q=	L/L+	L/IL-	L/Q+
L/L*	Q/L+	L/Q-	Q/Qr+
Q/Q*	Q/IQ+	Q/Q-	L/Lr-
	Q/Q+	Q/Qr-	Q/L-
	L/Lr=	L/IL=	Q/IQ-
	Q/L=	L/Q=	
	Q/IQ=	Q/Qr=	
	L/Lr*	L/IL*	
	Q/IQ*	L/Q*	
	Q/L*	Q/Qr*	

Table 1. Classification of alterations to dynamics and instrumental density at the onset of recapitulation

The 32 categories in Tab. 1 only apply to movements in which the onset of recapitulation in some way matches the beginning of the exposition. Frequently, however, the beginning of the exposition's main theme does not clearly return at the beginning of the recapitulation. I group movements with these more drastic alterations into just two additional categories. If the recapitulation begins by tracking material from after the end of the main theme, I consider the movement to have "no recapitulation" of the main theme, abbreviated to "N-R". This N-R category is roughly similar to James Hepokoski and Warren Darcy's "Type 2" sonata. More "significant changes", abbreviated to "S-C", include wholesale reworking of expositional motifs, as well as beginning the recapitulation with material that does not clearly correspond to anything from the exposition.

Examples

Some examples will clarify these categories of recapitulatory alterations to main themes, so I have chosen one example from each of the four main groups of categories (similar, intensified, attenuated, and contradictory). The fourth movement of Beethoven's First Symphony (Ex. 1) has a similar beginning to the main theme in both the exposition and the recapitulation. After a brief slow introduction, the exposition begins in the strings, marked *piano*. The recapitulation also begins *piano*, but the downbeat at b. 164 has a crotchet in flutes, clarinets, and bassoons, as they finish the last gesture of the development. The category for this movement is Q/Q*: the quiet main theme from the exposition returns at the same quiet level, with a minor change in orchestration indicated by the asterisk. This kind of small increase in orchestration, where the texture at the end of the development hangs over into the first measure of the recapitulation, is a

frequent device in the repertoire.

[Slow Introduction] Exposition Main Theme

[Adagio] Allegro molto e vivace

[Development] Recapitulation
[Retransition] Main Theme

(corresponds to m. 7) (8) (9)

162 163 164 165

Example 1. L. v. Beethoven, First Symphony, Fourth Movement, bb. 5-9 and 162-165

Beethoven's First Symphony also provides an excellent example of an intensified recapitulation, in the first movement (Ex. 2). The exposition begins at b. 13 in the strings, with woodwinds adding a brief gesture at the end of the phrase, all at a dynamic marking of *piano*. The recapitulation at b. 178, by contrast, begins *fortissimo* and *tutti*. The category for this movement is Q/L+: the quiet main theme returns at a loud level, with an increase in orchestration. As I have already mentioned, Beethoven's tendency to intensify his recapitulations is well documented.

Exposition Main Theme

Recapitulation Main Theme

(corresponds to m. 13)

Example 2. L. v. Beethoven, First Symphony, First Movement, bb. 13-17 and 178-182

The first movement of Franz Schubert's "Great" C major symphony (Ex. 3) has an attenuated recapitulation. After a rather lengthy slow introduction, the exposition arrives at b. 78 with the initial *forte* motif in the strings, answered two bars later by a three-bar gesture in the woodwinds that begins *piano* and increases to *forte*. The recapitulation at b. 356 has a slightly reduced orchestration, with second horn, trombones, and timpani now missing, and the dynamic marking is now *piano*. The category for this movement is L/Q-: a loud main theme in the exposition returns at a quiet level in the recapitulation, with sparser instrumentation. Several commentators have described the alterations to the onset of recapitulation in this particular movement, contrasting Schubert's reduction of sound to Beethoven's preference for a dramatic increase [Coren 1974, 579; Brown 2002, 634; DeVoto 2011, 50].

Exposition

Main Theme

Allegro, ma non troppo

(2da volta)

78 79 80 81 82

Recapitulaton

Main Theme

(corresponds to m. 78)

(79) (80) (81) (82)

356 357 358 359 360

Example 3. F. Schubert, "Great" C Major Symphony, First Movement, bb. 78-82 and 356-360

We can find an example of a contradictory recapitulation in the second movement of Anton Bruckner's Sixth Symphony (Ex. 4). The movement begins with the strings playing at a *piano* level, with the main melody in the violins. The recapitulation at b. 93 has a denser instrumentation: oboes, first clarinet, first bassoon, and all four horns are now part of the texture. The horns take the main melody here, in octaves, with the strings playing an accompaniment pattern that is more rhythmically active than the corresponding material at the beginning of the movement. The dynamic marking of *pianissimo* in the accompanying parts (clarinet, bassoon, and strings), however, is quieter than the *piano* of the movement's opening. The instruments with more melodic lines (oboes and horns) still have a marking of *piano*, though. The category for this movement is thus Q/Qr+: a quiet main theme that returns at a quieter level with increased instrumentation.

Exposition
Main Theme
Adagio. Sehr feierlich

Recapitulation
Main Theme
(corresponds to m. 1)

Tempo I. zu 2 (2) 93 94

Ob. *p* *cresc.*

[Cl. I] *pp*

[Bsn. I] *pp*

F Hn. I, II *p* *cresc.*

F Hn. III, IV *p* *cresc.*

Tempo I. (dreiteilig)

Vln. I *pp*

Vln. II *pp*

Vla. *pp* trem. semp.

Vc. *pp* 3 gezogen

Cb. *pp* 3 gezogen

Violin I *p* lang gezogen *cresc.*

Violin II *p* lang gezogen *cresc.*

Viola *p* lang gezogen *cresc.*

Violoncello *p* lang gezogen *cresc.*

Contrabass *p* lang gezogen *cresc.*

Example 4. A. Bruckner, Sixth Symphony, Second Movement, bb. 1-3 and 93-94

Corpus

I define the corpus by three main factors: time period, genre, and availability of scores. The year 1800 – when Beethoven completed his first symphony – is an obvious starting point. The end date is somewhat arbitrary: I chose 1899 simply because it rounds out an even hundred years. This year also falls nicely between the oeuvres of two other important symphonists: Bruckner completed his last symphony in 1896, and Jean Sibelius wrote his first in 1899.

In terms of genre, I include only works titled "Symphony" (or an equivalent term in another language – *Symphonie*, *Sinfonie*, *Sinfonia*, etc.) for an orchestra that includes at least strings and winds. Although I include programme symphonies, I exclude other related genres such as symphonic poems, overtures, suites, serenades, etc. To my

knowledge, no scholar has ever tried to compile a complete inventory of all extant symphonies dating from the Romantic era; indeed, such a comprehensive account would be far beyond the scope of my project. The closest attempt may be Frank Kirby's list of 391 symphonies, which only covers works published in German speaking lands [Kirby 1995]. Kirby's list, however, includes works for which scores are not available, and does not involve any musical analysis. Julian Horton's overview of inter-movement key relationships in nineteenth-century symphonies is also quite large, comprising 163 symphonies by 34 composers [Horton 2013].

For practical reasons, I only examine symphonies with scores that were easily available to me at the time I began this project.^[1] That is, I include all nineteenth-century symphonies whose scores were held at the Marvin Duchow Music Library at McGill University, where I conducted the bulk of my research, or that are available online from the Petrucci Music Library, run by the International Music Scores Library Project (IMSLP). Other scores may be available online from other sources, and indeed more scores keep appearing on IMSLP all the time, but I feel the corpus is large enough already. In total, it includes 283 symphonies, comprising 1031 movements, dating from 1800–1899, by 136 different composers. Within this corpus, I deem 483 full movements to be clear examples of sonata form.

Most of the first movements use sonata form, as do most symphonies with only one movement, as well as most finales. Finales sometimes exhibit characteristics of both sonata and rondo forms; depending on the movement, and on the perspective of the analyst, the rondo aspect or sonata aspect may be more salient [Hepokoski-Darcy 2006, 428-429]. Although I generally avoid inclusion of sonata-rondos in the survey, some may have slipped in if one of the refrains seems to function more obviously as the beginning of the recapitulation than the others. Slow movements are occasionally fully-fledged sonatas. Scherzos or minuets only rarely use sonata form as the basis of the entire movement. Occasionally, the scherzo or minuet proper within a larger-scale ternary structure (that is, Scherzo-Trio-Scherzo) is itself a sonata form. Since this apparent sonata is subsidiary to the large ternary, I do not include such movements in the analysis.

Survey Results

The numbers of movements for the individual categories, shown in Tab. 2, are highly unbalanced. Recapitulations that begin with a similar sonority to the exposition are common, with 150 examples in the corpus of 483 sonata-form movements. The most typical strategy, however, is to begin the recapitulation with a louder, fuller sonority than the exposition: 219 movements in the corpus feature a recapitulatory onset that is intensified in some way. Only 38 movements attenuate the sonority of the beginning of the recapitulation, and 19 movements feature contradictory alterations to dynamics versus instrumental density.

Similar		Intensified		Attenuated		Contradictory		Other	
L/L=	37	L/Lr+	38	L/L-	3	L/LL+	2	N-R	50
Q/Q=	49	L/L+	34	L/LL-	2	L/Q+	1	S-C	7
L/L*	18	Q/L+	56	L/Q-	11	Q/Qr+	14		
Q/Q*	46	Q/LQ+	12	Q/Q-	12	L/Lr-	0		
		Q/Q+	70	Q/Qr-	3	Q/L-	1		
		L/Lr=	8	L/LL=	0	Q/LQ-	1		
		Q/L=	0	L/Q=	1				
		Q/LQ=	0	Q/Qr=	5				
		L/Lr*	0	L/LL*	0				
		Q/LQ*	1	L/Q*	1				
		Q/L*	0	Q/Qr*	0				
Total Similar	150	Total Intensified	219	Total Attenuated	38	Total Contradictory	19	Total Other	57

Table 2. Classification of recapitulatory alterations, with counts of movements

Imbalances within each of the broad categories are also significant. Of course, not all of the 32 theoretical categories from Tab. 1 appear in the corpus. It seems that when composers choose to alter the dynamic markings, they tend to alter the orchestration at the same time. Among the intensified recapitulations, very few feature an increase in dynamics without a corresponding increase in orchestral forces. Many of the 38 attenuated recapitulations fall into just two categories: the eleven L/Q- movements and the twelve Q/Q- movements. Although dynamics and instrumental density can be independent, at the moment of recapitulation they tend to work together to change the character of the main theme, contradicting one another only very rarely. Moreover, most of the 19 contradictory recapitulations fall into one specific category: some 14 movements take a quiet onset to the main theme, thicken its orchestration in the recapitulation, but change its dynamic marking to an even quieter level (Q/Qr+; see, for instance, Ex. 4 above).

This anomaly among the contradictory recapitulations stands out, and it likely relates to the most common category: Q/Q+. Composers very frequently (in 70 movements in the corpus) give a quiet main theme a fuller

orchestration in the recapitulation than in the exposition without altering the dynamic marking. In the Q/Qr+ movements, perhaps the increase in orchestration raises the overall loudness to a point where a compensatory adjustment to the dynamic marking is necessary. That is, in many of the movements classified as Q/Qr+, the composer may not have actually intended a truly quieter loudness level, but only a change of timbre. Of course, the composer could in other cases intend the increase in instrumentation to also increase the loudness level and may use the dynamic marking to emphasize this increase: 12 movements fall into the Q/LQ+ category, almost the same number as Q/Qr+.

Another tendency worth noting is that in general, expositions tend to begin quietly. Of the 483 sonata forms in the corpus, 309 (64%) begin the main theme in the exposition with a dynamic marking of *mezzo-piano* or quieter. Because more movements begin quietly, the large number of recapitulations marked with louder (or less quiet) dynamics must result in part from regression to the mean. If main themes are altered randomly when they return, the quiet ones will tend come back louder (and the loud ones quieter) simply because there is less room for change even closer to the extreme end of the dynamic spectrum, and more room closer to the middle (that is, the mean). Since the majority of movements begin with quiet main themes, this regression will translate to a majority of movements having a less quiet or louder dynamic at the onset of recapitulation. Regression to the mean cannot, however, explain the entire discrepancy between the numbers of intensified and attenuated recapitulations because main themes that begin loudly do not regress in this way. On the contrary, loud main themes return even louder in the recapitulation more often than they do at a less loud or quiet dynamic level.

The types of alterations most commonly used at the beginnings of recapitulations shift over the course of the nineteenth century. Tab. 3 breaks down the count of each category that is instantiated in the corpus according to decade of composition.

		All Years	1800s	1810s	1820s	1830s	1840s	1850s	1860s	1870s	1880s	1890s
Similar	L/L*	18				3	1		4	1	3	6
	L/L=	37	7	5		6	1	4	2	3	3	6
	Q/Q*	46	8	9	3	10	1		1	5	3	6
	Q/Q=	49	5	6	5	6	7	3	4	4	8	1
	Total	150	20	20	8	25	10	7	11	13	17	19
Intensified	L/L+	34	3		2	5	1	3	4	4	6	6
	L/Lr+	38	1	2		3	1	7	1	8	6	9
	L/Lr=	8	1		3			1	2	1		
	Q/L+	56	2	3	3	3	3	2	6	7	15	12
	Q/LQ+	12		2		1	2	2	1	2	2	
	Q/Q+	70	9	5	9	3	7	4	7	6	12	8
	Q/LQ*	1		1								
	Total	219	16	13	17	15	14	19	21	28	41	35
Attenuated	L/L-	3										3
	L/LL-	2								1		1
	L/Q-	11		1	1	2	1				1	5
	L/Q=	1	1									
	L/Q*	1							1			
	Q/Q-	12	2	1		1		2	2	1	1	2
	Q/Qr-	3	1					1		1		
	Q/Qr=	5				1			1	1	2	1
Total	38	4	2	1	4	1	3	4	4	3	12	
Contradictory	L/LL+	2				1		1				
	L/Q+	1									1	
	Q/L-	1									1	
	Q/LQ-	1				1						
	Q/Qr+	14	1	1		1	1	2	2		4	2
	Total	19	1	1		3	1	3	2		6	2
Other	N-R	50	9	5	3	5	3	1	4	6	5	9
	S-C	7	2	1		1	2		1			
	Total	57	11	6	3	6	5	1	5	6	5	9
Grand Total		483	52	42	29	53	31	33	43	51	72	77

Table 3. Classification of recapitulatory alterations, by decade

Fig. 1 illustrates the same data graphically by showing the counts of each of the main groups of categories (similar, intensified, attenuated, contradictory, and other) as percentages of the total number of movements per decade.

Recapitulations that begin with a similar sonority to the beginnings of expositions decline over time, ranging between 27% and 48% of movements before 1850, but between 21% and 26% after 1850. The "other" categories (N-R and S-C) also decline, ranging between 10% and 22% before 1850, but between 3% and 12% after 1850. Intensified recapitulations become more common over time: in the 1800s, 1810s, and 1830s, approximately 30% of symphonic sonata forms have intensified recapitulations, but after 1840 this rate stays above 45%. This increase is not, however, very steady. The 1820s stand out as an exception, with the highest rate of intensified recapitulations, at 59%. This anomaly possibly relates to the relatively small number of movements in the corpus that date from this decade (just 29, compared to 42 in the 1810s and 53 in the 1830s): with a relatively small sample size, the effect of individual movements is exaggerated.

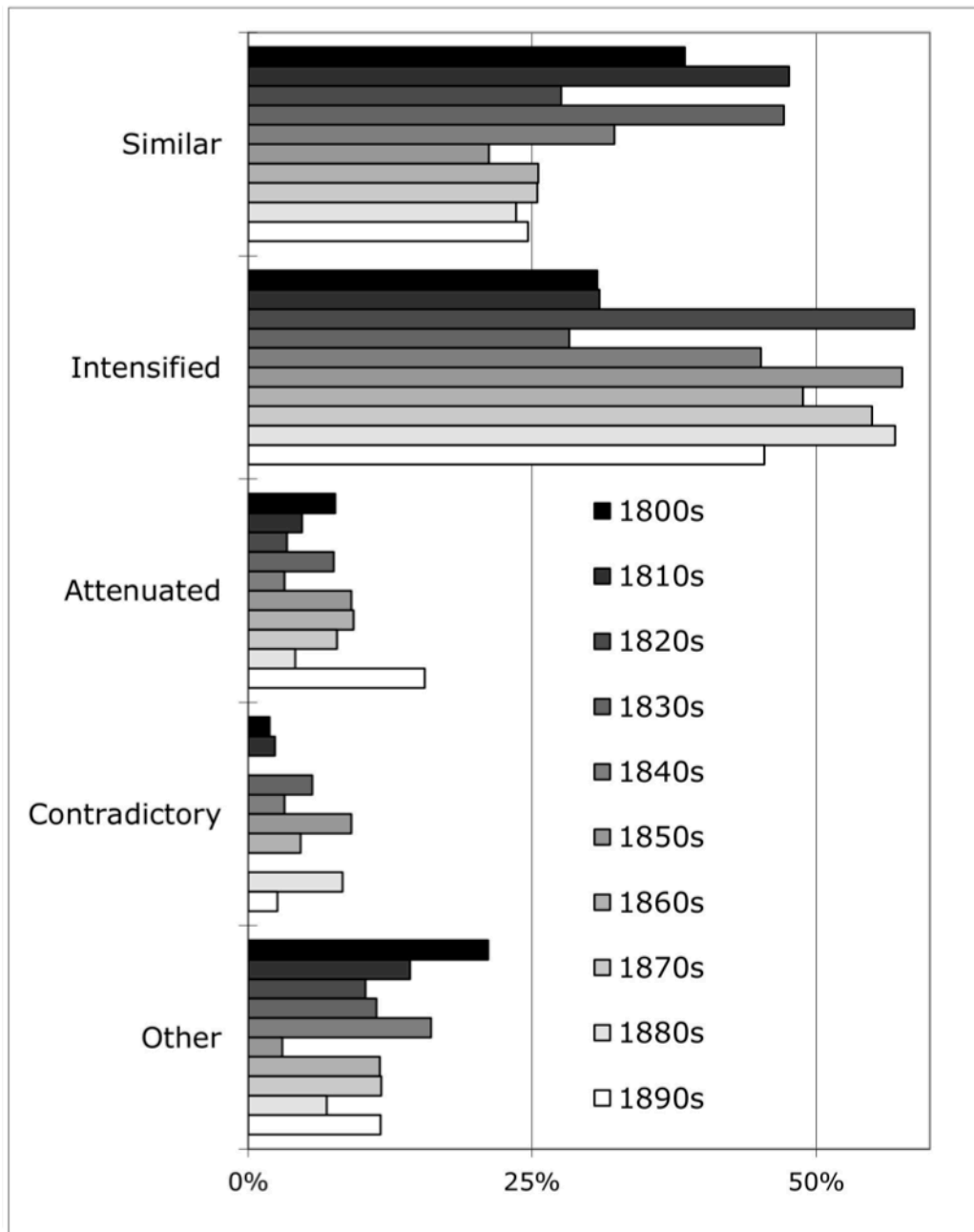


Figure 1. Bar chart of selected data from Table 3

Since the corpus contains so few attenuated and contradictory recapitulations, trends over historical time for these categories are less obvious. If anything, the relative number of these recapitulations also increases later in the century. So, all types of altered recapitulatory onset become more common later in the century, at the expense of recapitulations that begin with a similar sonority to the opening of the exposition. The trend is more obvious for intensified recapitulations because they are more common to begin with. These changes over time illustrate the expansion of the size of the orchestra during the nineteenth century, as well as an increase in the use of more specific dynamic markings.

Another broad trend over historical time is that the proportion of main themes that begin quietly declines in the second half of the century. Although some of the data indicating this trend is present in Tab. 3 above, Tab. 4 below present a clearer picture, with its data appearing as a chart in Fig. 2. Before 1850, the number of quiet onsets to the exposition (*mezzo-piano* or quieter) ranges between 64% and 77%, but after 1850 it ranges between 45% and 71%. The trend is not very strong: the lowest rate of quiet beginnings to the exposition arrives early, in the 1850s, and is not

matched until the 1890s.

	1800s	1810s	1820s	1830s	1840s	1850s	1860s	1870s	1880s	1890s
Exposition Begins <i>mp</i> or Quieter	36	32	22	34	22	15	29	33	51	35
Exposition Begins <i>mf</i> or Louder	16	10	7	19	9	18	14	18	21	42

Table 4. Dynamic markings at beginning of main theme in exposition, by decade

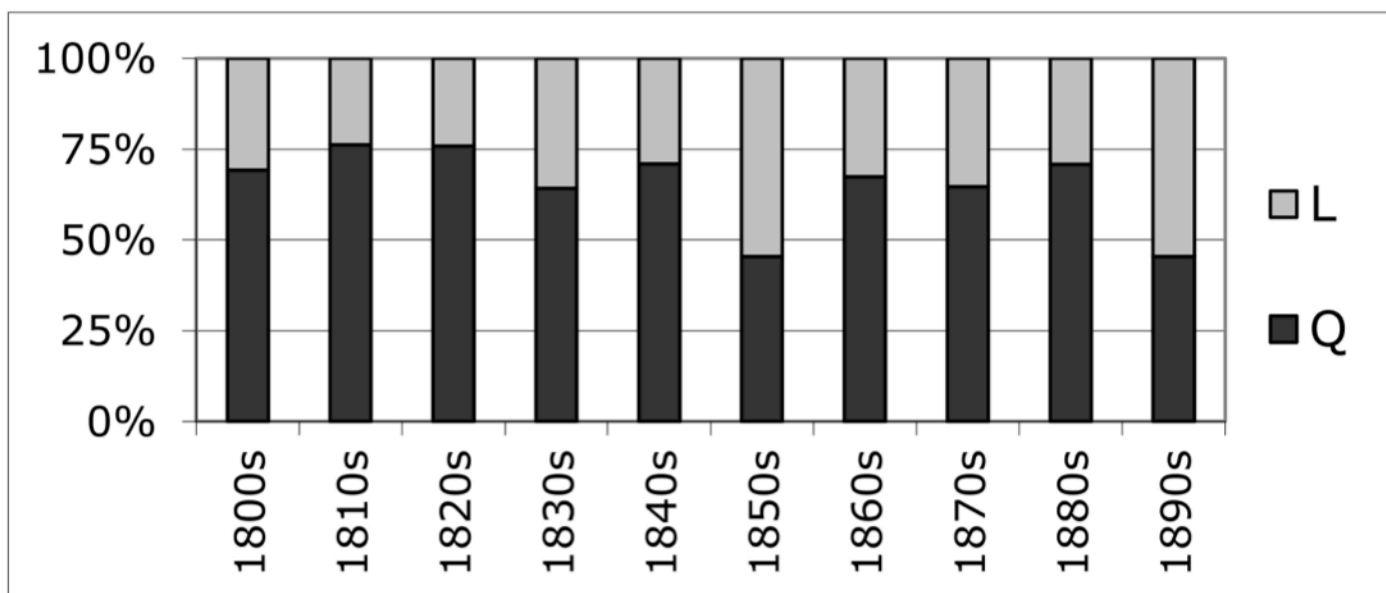


Figure 2. Bar chart of data from Table 4

Since Q/L recapitulations become more common later in the century, the trend is more obvious if we take the dynamic marking at the onset of the recapitulation, shown in Tab. 5 and Fig. 3. Before 1850, between 54% and 71% of recapitulations begin *mezzo-piano* or quieter, but after 1850 this rate ranges between 36% and 52%. In other words, before 1850 most recapitulations begin quietly, but after 1850 most recapitulations begin loudly.^[2]

	1800s	1810s	1820s	1830s	1840s	1850s	1860s	1870s	1880s	1890s
Recapitulation Begins <i>mp</i> or Quieter	35	29	19	29	22	15	22	24	33	28
Recapitulation Begins <i>mf</i> or Louder	17	13	10	24	9	18	21	27	39	49

Table 5. Dynamic markings at beginning of main theme in recapitulation, by decade

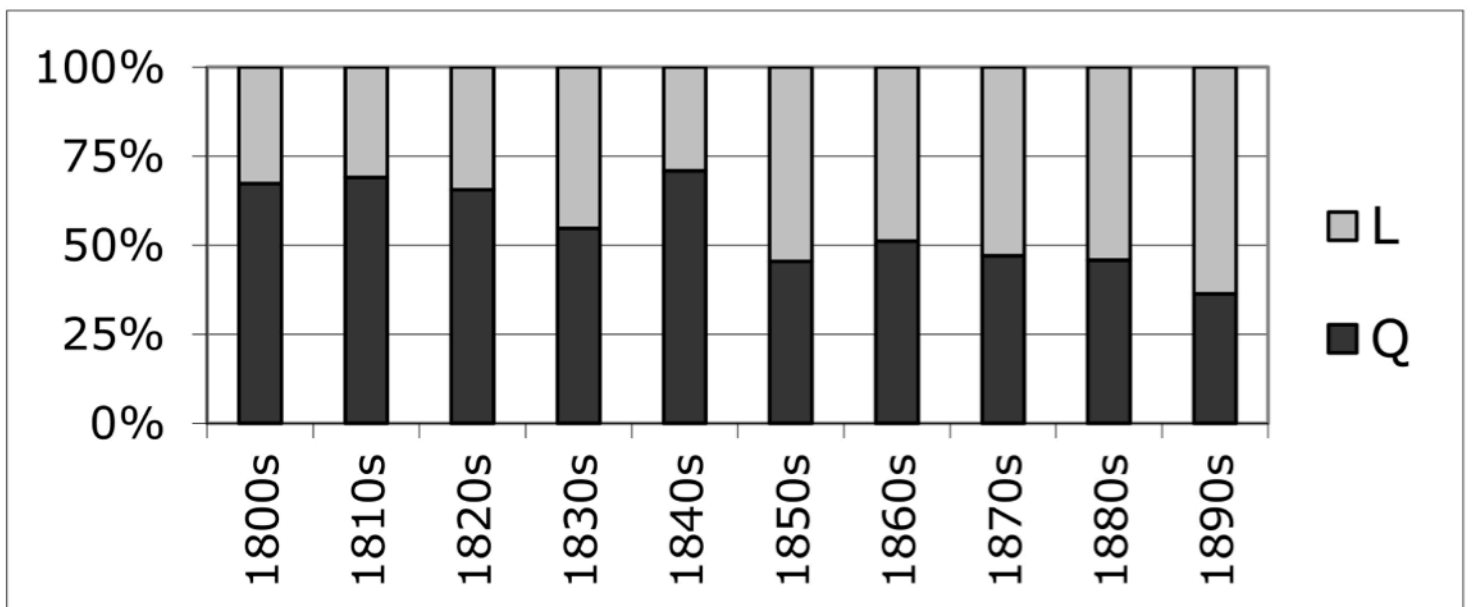


Figure 3. Bar chart of data from Table 5

To conclude, I now offer a comment on possible broader applications for the classification scheme, then summarize the main findings of the corpus study. The scheme might be useful to anyone wishing to analyse alterations to secondary parameters upon the return of a theme. I have examined only the beginnings of main themes in sonata expositions and recapitulations, but future work could use a similar method to analyse returns of other material, such as subordinate themes, or could apply to music that does not use sonata form. My work focuses on dynamic markings and orchestration, but adjustments to the method could allow it to apply to other secondary parameters. As for my study of symphony recapitulations, intensified returns are the most popular among composers, becoming especially common later in the nineteenth century.

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[1] I stopped adding works to the corpus in 2012.

[2] Tab. 5 and Fig. 3 present data for the entire corpus, including N-R and S-C movements, such that not all beginnings of recapitulation sections start with the main theme.