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SONATA FORM AS TEMPORAL PROCESS: THE FIRST MOVEMENT OF BRUCKNER'S SIXTH SYMPHONY

Introduction

In the first edition of *The New Grove Dictionary of Music and Musicians* (1980), Deryck Cooke's 'Bruckner' entry characterises the composer's sonata form as follows:

Sonata form is a dynamic, humanistic process, always going somewhere, constantly trying to arrive; but with Bruckner firm in his religious faith, the music has no need to go anywhere, no need to find a point of arrival, because it is already there. [...] Experiencing Bruckner's symphonic music is more like walking round a cathedral, and taking in each aspect of it, than like setting out on a journey to some hoped-for goal. (Cooke 1980, p. 366)

Cooke's remark reflects a stereotypical view of Bruckner's form as something like a motionless architecture allegedly lacking the logical dynamic processes an archetypical sonata form should possess, the perspective already found in some comments from Bruckner's contemporaries. For instance, in his 1886 review of a performance of the Seventh Symphony, Gustav Dömpke remarked: 'Bruckner lacks the feeling for the basic elements of any musical structure and for the combination of a series of integral harmonic and melodic parts' (trans. Howie 2002, p. 508).¹ Similarly, Heinrich Schenker (1908) made the criticism that in Bruckner's music, 'the sense of sonata form is merely to present ideas in succession, no matter how and wherefore a potpourri could not also possess the value of an organic whole' (trans. Rothfarb, *Schenker Documents Online*). Even Franz Schalk, one of the most important proponents of Bruckner, betrayed a similar bias when he wrote: 'Nothing is more primitive than Brucknerian form [...] Bruckner fabricated a very simple schema for his movements, and never speculated about it and held to it regularly in all of his symphonies' (cited and trans. Korstvedt 2004, p. 171). This line of thought has constantly reproduced an image of Bruckner in which 'he is deemed to embody a kind of pre-Enlightenment spiritual certainty [...] and this drew his symphonic aesthetic [...] away from Beethovenian dynamism and towards a kind of passive or static conception' (Horton 2014, p. 79).²

This essay questions the adequacy of such a judgement in fully explaining the essence of Brucknerian form. Instead, it aims to elucidate the music's processual aspects, suggesting that Brucknerian sonata form should not be

detached from the post-Beethovenian mainstream tendency towards a dynamic conception of sonata form. This approach is partly foreshadowed by Bruckner's two most influential early twentieth-century apologists, August Halm and Ernst Kurth, who also identified a more processual logic in Bruckner. As Giseller Schubert points out, Halm approaches Bruckner's music basically as an 'expressive temporal art' (2010, p. 65), deliberately distancing himself from the schematic understanding of form. He recognises that the seemingly episodic elements of Brucknerian form are unfolded in what he calls 'epic succession' ('die epische Aufeinanderfolge' [Halm 1914, p. 56]), which retains a high degree of 'consequentiality', as is especially evident in 'the overarching dynamic shapes arising mostly from harmonic but also thematic processes that carry the music through its epic succession of escalatory and balancing de-escalatory phases' (Rothfarb 2009, p. 121).³ This kind of temporal progress can promote a high degree of thematic individuality without losing a sense of forward motion, thus appealing to what Halm calls 'corporeality', the quality he values most highly in music.⁴ Thus, Bruckner could lead sonata form to another new phase, establishing what Halm calls the 'third culture' of musical form, which synthesises the culture of themes (exemplified by Bach's fugues) and the culture of harmony (exemplified by Beethoven's sonatas). Further developing the processual conception, Kurth (1925 and 1991) explains Bruckner's form in terms of what he calls 'wave dynamics', the musical embodiment of energy-creating processes of intensification and de-intensification.⁵ In these terms, our sense of form in Bruckner's music is created by a real-time perception of wave formations at different hierarchical levels, where 'everything is vitally directed toward coming events' (Kurth 1991, p. 154). It is notable that Kurth often mobilises spatial metaphors, as Rothfarb points out, adding to Halm's temporal perspective 'a spatial shaping, a metaphorical nearness or remoteness' (ibid., p. 191 n. 5). However, for Kurth, the sense of space in Bruckner, far from a static conception (recall Cooke's 'cathedrals'), is 'evoked by formal processes in the first place' and is 'contingent upon the particular, stylistically variable type of formal processes for the nature of its aural experience' (ibid.). What is essential in Kurth's spatial understanding is the constantly moving and changing kinetic imageries, rather than the architectural schema, following the logic of hierarchically constructed ebbs and flows.

Despite shedding new light on the processual aspect of Bruckner's form, Halm's and Kurth's approaches did not acquire systematic theorisation. As Rothfarb notes, 'Halm is an unsystematic, largely nontheoretical analyst who focuses on music's dramalike traits and highlights its underlying dynamic characteristics' (2005, p. 132). This leads to a question about the applicability of his concepts for modern theoretical discussions, as Thomas Christensen points out: '[H]ow we are to apply concepts such as "consequentiality", "intensification", or "epic succession" to our own analyses of music with any empirical rigor[?]' (2011, p. 27). Likewise, Kurth's analytical discussions 'relied primarily on intuition, rather than established methodology' (Rothfarb

1988, p. 18), using metaphysical and theoretically vague terms, with some psychological implications, which are ‘descriptive rather than explanatory’ (Hyer 1990, p. 90). Even his central concept of ‘wave dynamics’ did not attain a robust theoretical definition in his writings; consequently, what exactly constitutes such waves remains ambiguous. For Kurth, ‘[tracing the undulation] is simple to the point of being self-evident since it corresponds to the creative process, which should not at all be thought of as “calculative”’ (1991, p. 156). While it has reasonable grounds, his argument also reflects the practical difficulty of formulating a theory for what Leonard Meyer (1980) calls ‘secondary parameters’, such as the literal dynamics (their increase and decrease), the melodic contour (ascending and descending) or the degree of textural density, all of which could constitute elements of wave formation. This aspect also leads to a concern about undermining the pitch-based ‘primary parameters’.⁶ Because most modern *Formenlehre* discussions regard tonal/harmonic factors as the most crucial, understanding Bruckner’s form solely based on the Kurthian energeticist view runs the risk of further alienating Bruckner from the mainstream tradition around sonata form. Indeed, Walter Frisch (2003), in his comparison of Bruckner with Brahms, utilises Kurth’s formulation of wave dynamics to emphasise Bruckner’s ‘otherness’, which could allegedly require radically different formal notions from the post-Beethovenian mainstream.⁷ The long history of the relative scarcity of analytical scrutiny on Brucknerian form (especially among Anglophone theorists) may be explained in this context: for some, Bruckner’s form may have been too eccentric to allow us to capture its essence by any means other than ‘nontheoretical’ approaches, such as those of Halm and Kurth.

Recent music-theoretical discussions around the issue of musical form, however, set up a more favourable climate for the task of elucidating the processual and dynamic aspects of Brucknerian sonata form in reliable theoretical terms. Since the late 1990s, the developments of the two leading formal theories – James Hepokoski and Warren Darcy’s sonata theory (2006 and 2021) and William Caplin’s theory of formal functions (1998 and 2013) – have triggered this trend, often called the ‘new *Formenlehre*’.⁸ Both approaches tend to emphasise processual formal aspects: the former traces a large-scale teleology driven by the expression of closure, and the latter directly addresses musical form’s strong temporal associations by using the ‘beginning–middle–end paradigm’.⁹ This trend has coincided with meaningful developments in Bruckner scholarship, many of which have attempted to explain Brucknerian form in relation to tonal and harmonic aspects. A key concern is finding alternative formal principles in Bruckner’s sonatas in the face of the apparent absence of the Classical ‘sonata principle’ (Cone 1968), involving a tonal opposition in the exposition and its resolution in the recapitulation. The issue of the second theme is especially crucial here: early criticisms probably stem from the observation that Bruckner’s overtly contrasting second theme is not only central to the sense of formal disjunction

but also often tonally arbitrary in that it does not fulfil its expected tonal task of resolution.

Darcy's paradigm of norms and deformations – one of the core concepts of what has been further developed by him and Hepokoski as sonata theory – suggests that Bruckner intentionally deforms the sonata principle to express a 'failure' and 'redemption from outside' (1997, p. 277).¹⁰ The resulting suspension of the expected sonata process until the deferred resolution in the coda is strongly associated with the concept of the 'alienated secondary theme', which diverts to unexpected tonal areas seemingly detached from the main sonata discourse 'and is thus kept from the place of resolution' (ibid., p. 272). This perspective may partly justify Bruckner's disjunctive formal practice as a means of expression with delayed resolution, although it does not fully overcome the static formal conception contributed by the isolated second theme. Benjamin Korstvedt's (2001) pioneering analysis of the first movement of Bruckner's Sixth Symphony pays attention to what he calls the 'dissonant tonal complex' planted in the primary theme. For Korstvedt, the process of gradually purging and resolving this unsettling tonal element through the later first-theme restatements replaces the sonata principle's conventional procedure. However, what other formal areas such as the second-theme group do in relation to this kind of formal process still remains to be explained. Like Darcy, Korstvedt notes that the second group in this movement 'does seem to stand in splendid isolation' (p. 195).¹¹

More recent studies tend to show more inclusive attitudes towards the engagement of non-primary-theme regions in the music's sense of teleology. Julian Horton (2005, p. 12) sees Bruckner's form (and nineteenth-century form in general) as something dialectical, assuming that nineteenth-century sonata forms 'simultaneously acknowledge and supersede the high-classical model, while presenting the result as a syntactic whole'. This view has more recently led him to call for a theoretical approach that 'needs to accommodate the changing conditions of tonality and the generative relationship between material and form, as well as the evolution of form-functional habits' (Horton 2017, p. 190). Accordingly, in a later essay Horton (2018b) proposes an analytical model based on what he calls 'orbital tonality' for the finale of the Seventh Symphony, in which three hexatonically related tonal orbits (E, A $\flat$, C) work in close conjunction with both the intra- and inter-thematic functions, encompassing all three theme groups while generating a teleological process towards the eventual confirmation of the E tonality.¹² Nathan Pell, also countering the long-standing tendency of isolating Bruckner from the mainstream symphonic tradition, asserts that 'Bruckner's treatment of sonata form is a natural continuation of earlier approaches' (2018, [5.4]). This perspective leads him to criticise Darcy's 'alienated secondary theme' argument, which, he claims, overlooks the fact that Bruckner's second theme actually initiates, in many cases, 'a journey towards a goal – the dominant' (ibid.). For Pell, this teleological process is guaranteed through continuous voice-leading

content, which would justify the application of a Schenkerian perspective to Bruckner.¹³

In line with these recent debates, which over time have come to note the processual dimensions of Brucknerian form (especially in relation to tonal aspects), this article approaches it through the lens of a modified form-functional framework, which conceptualises sonata form as a hierarchical temporal process based on the dialectical interaction between stability and instability, paying particular attention to how Bruckner engages in the expression of linear musical time intrinsic to sonata form which he inherited from his Classical predecessors. Caplin's form-functional theory, especially its beginning–middle–end paradigm, provides a foundation for my analysis, unearthing the hierarchical disposition of formal syntax. In addition, out of a desire to make the form-functional approach more applicable to late-nineteenth-century repertoire, I also adopt Matthew Arndt's (2018) recent reconception of formal functionality using his framework of eight structural functions. These theoretical preliminaries are further specified in what follows before they are applied to an analysis of the first movement from Bruckner's Sixth Symphony, which supplies a paradigmatic example of Brucknerian sonata form.

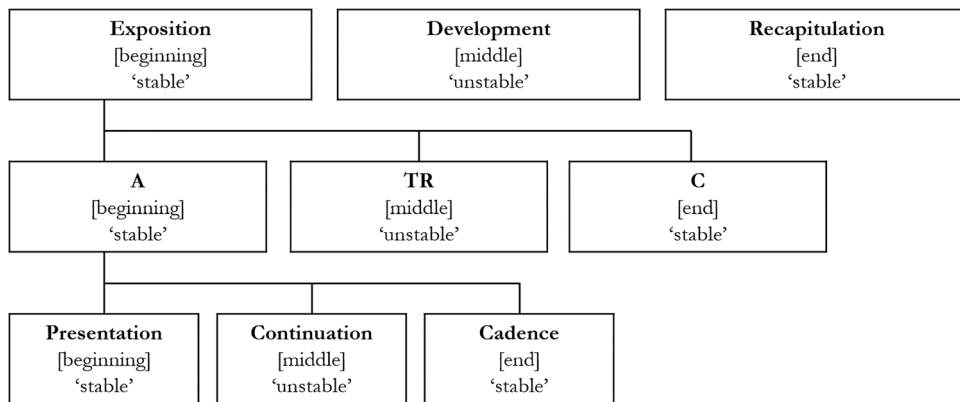
Theoretical Preliminaries

The idea of associating music with linear temporal order arose more or less recently in human history, as Karol Berger claims:

[I]n the later eighteenth century European art music began to take seriously the flow of time from past to future. Until then music was simply 'in time'; it 'took time' – events had somehow to be arranged successively, but the distinction between past and future, 'earlier' and 'later', mattered little to the way the music was experienced and understood. From that point on music added the experience of linear time, of time's arrow, to its essential subject matter. Music could no longer be experienced with understanding unless one recognised the temporal ordering of events. (Berger 2007, p. 9)

This shift in ways of thinking about the relationship between music and time is nowhere more evident than in the rise of sonata form, since '[t]he disposition of events in a sonata [...], the temporal order in which they appear, is essential: to tamper with it is to drastically change, or destroy, the meaning of the work' (ibid., p. 7). This temporal aspect of sonata form has been suggested (albeit not always explicitly) in various theoretical discussions. For example, A. B. Marx's influential theory of sonata form, as summarised by Scott Burnham, is based on the principle of 'a primary opposition between the state of rest and that of motion' (1989, p. 249): the impulse towards motion and a desire to seek rest propels indispensable temporal successions in sonata form. The aforementioned concept of the sonata principle also alludes to linear temporal unfoldings by suggesting a teleology driven by a tonal opposition in the exposition and its

Fig. 1 A model for the hierarchical temporal process in sonata form



resolution in the recapitulation. And Hepokoski and Darcy's sonata theory includes some temporal implications by engaging with teleological trajectories towards what they call 'essential expositional closure' (EEC) and 'essential structural closure' (ESC).¹⁴ Among those who more explicitly situate sonata form in temporal contexts, David Greene suggests 'balance and forward thrust' (1980, p. 20) as two pervading elements of sonata form, which demonstrate a will to form paired sections with differentiated closures at every level. In a similar spirit, Berger (1996 and 2007) also attempts to reframe sonata form as a 'punctuation form', which relies heavily on the sense of endings at various hierarchical levels, generated by different rhetorical strengths of closures.

Caplin's form-functional theory brings the issue of musical temporality to the fore as a primary concern in a comprehensive theoretical framework for sonata form. The importance of musical temporality in Caplin's theory is illustrated in his definition of formal function as '[t]he specific role played by a particular musical passage in the formal organization of a work. It generally expresses a temporal sense of beginning, middle, end, before-the-beginning, or after-the-end' (Caplin 1998, pp. 254–5). This view construes sonata form as something constantly being generated in real time through temporal manifestations at various levels. For Caplin, at least three hierarchical levels exist. The beginning, middle and end at the intra-thematic level are expressed, for example, in the case of a sentential theme, by the presentation, continuation and cadential functions, respectively. At the inter-thematic level, they are expressed by the main theme, transition and subordinate theme, respectively. Finally, the exposition, development and recapitulation express the large-scale beginning, middle and end, respectively.

Fig. 1 suggests an abstract model for this kind of temporal process. The underlying principle here is the dialectical relationship between stability and

instability, realised primarily through harmonic/tonal means at every formal level – reminiscent of Marx's formulation of 'rest' and 'motion'. As Caplin himself notes, it is local harmonic progression that 'is held to be the most important factor in expressing formal functions in themes' (1998, p. 4).¹⁵ A thematic initiation is associated with a state of being stable, usually through tonic prolongation. This stability summons a desire to make a change, resulting in a destabilising process usually achieved through more intensified harmonic activities such as sequential progression, which produces a medial function.¹⁶ The unstable state again generates a need for stability, which is fulfilled through tonal confirmation by cadence. At a higher level, the theme as a whole is established in a state of being stable at its given formal level by confirming the tonic key, and it summons another unstable state at the equivalent level, which is a transition. This unstable section calls for further stability at the same level, which is expressed by the subordinate theme articulating the expository end. However, this 'end' is not complete, since it is expressed in a different key from the original tonic key. This necessitates two more large sections. The development acts as a large-scale expression of instability, responding to the relatively stable exposition as a whole. The recapitulation responds directly to this instability as a large-scale, stable section balancing the highly unstable development, but it also reacts to the exposition's incomplete sense of stability, usually by presenting the subordinate theme in the tonic key.

My approach to Brucknerian sonata form traces how the composer responds to this dynamic process governed by temporal logic. However, his late Romantic compositional idioms – such as the extensive use of chromaticism and formal expansion – require a framework in which formal functionality can be expressed flexibly.¹⁷ For this purpose, Arndt's (2018) recent reconception of formal functionality offers useful insights. He points out that Caplin's terminology for formal functions, such as presentation, standing on the dominant or main theme, can be better understood as referring to 'types of parts (*Teile*)' (ibid., p. 210) and that what the parts are doing, namely what he calls their 'structural functions', should be the focus for understanding formal functionality. Based on Schoenberg's formal concepts as found in his incomplete treatise *The Musical Idea* (1995), Arndt reformulates formal functionality by suggesting eight structural functions that can be defined as follows:

1. *Establishment* is 'to put the musical idea into a comprehensible form' (Arndt 2018, p. 212); when the idea is repeated or reappears later, it can be called re-establishment.
2. *Confrontation* brings contrast or something different from that which has preceded it.
3. *Connection* provides mediation between different parts.
4. *Dissolution* is the opposite of establishment. It may involve melodic fragmentation or liquidation as well as harmonic destabilisation, usually undermining the established tonic through modulations or sequences.

5. *Delimitation* offers formal articulation so that we can distinguish different formal chunks. It is closely related to the sense of the ending of formal units (e.g. a cadence).¹⁸ Schoenberg likens this function to that of the skin (Schoenberg 1995, p. 225).
6. *Elaboration* situates the musical idea in new contexts (e.g. variation technique).
7. *Preparation* is 'getting ready for a following member' (Arndt 2018, p. 214).
8. *Stabilisation* is 'making a harmony firm, generally after a cadence or other harmonic arrival' (ibid.).

Because these are universal functional categories that are not necessarily bound to strict Classical harmonic contexts, they are more broadly applicable.¹⁹ In addition, the distinction between the types of parts (e.g. presentation) and what the parts are doing (e.g. establishment) enables these functions to operate at every level, bringing additional flexibility for exploring Bruckner's complex and expanded forms.²⁰

This approach can also help in the exploration of more subtle and specific temporal implications thanks to the potential for the combination or hybridisation of structural functions, each of which has its own temporal ramification. The establishment and delimitation functions are associated with the temporal beginning and end, respectively; the confrontation, elaboration and dissolution usually involve the middle, although the characterisation of those functions may differ.²¹ The preparation and stabilisation are usually tied to the before-the-beginning or the after-the-end framing functions. The connection function, depending on the context, may mainly express an after-the-end function, but sometimes a middle or an end as well. Finally, combined in various ways, they can address more complex temporal qualities beyond beginning, middle and end.²²

In the analysis that follows, I mostly preserve familiar form-functional terms such as presentation, continuation and basic idea, but I use them solely to refer to types of formal parts. (Following Arndt, their functions – that is, the formal tasks they perform – will instead be expressed by structural functions.) However, my analysis focuses not merely on identifying such structural functions, but on exploring the temporal implications mobilised by those functions so that we can unearth the vividly processual nature of Brucknerian form. At this point, it is worth clarifying the labelling system for thematic elements. Thanks to Bruckner's formal expansion, which creates more intra-thematic formal levels than in Classical practices, it is important to distinguish between thematic units and theme groups.²³ While I will use 'A group', 'B group' and 'C group' for the first-, second- and third-theme groups respectively, their constituent thematic units are expressed by adding an integer.²⁴ For example, B1 means the first thematic unit in the second-theme group; B1' represents a restatement or reprise of the B1 unit; B2 represents a new thematic unit with different materials from B1 but still located within the B group.²⁵

Analysis: Bruckner Symphony No. 6 (1881), First Movement

The first movement of Bruckner's Sixth Symphony (henceforth VI/1) has been frequently treated as emblematic of Bruckner's formal style.²⁶ For instance, Kurth (1925) took this movement (along with the finale) as a representative example for explaining the fundamental principles of his concept of wave dynamics. In line with Kurth's idea, Horton's (2004b) analysis of VI/1 illuminates the composer's habit of treating orchestral texture in stratified processes. Carl Dahlhaus (1989) famously contrasted Bruckner's rhythm-based thematic process with Brahms's more diastematic developing variation by taking this movement as an example, although this view has been challenged by another study by Horton (2014) that uncovers meaningful intervallic logic in Bruckner's thematic process.²⁷

Arguably, the most quintessential Brucknerian feature of this movement (and one which governs most of the composer's mature symphonic first movements) is its combination of a seemingly Classical formal outline with audacious harmony rooted in late Romantic style to such an extent that it could threaten the conventional tonal scheme of sonata form.²⁸ As mentioned above, Korstvedt (2001) addresses this issue by identifying tonally unstable elements in the opening A theme, which work as influential forces across the movement. These elements include the expression of the pitch A surrounded by G $\sharp$ and B $\flat$, thus alluding to V of D minor (bar 4; see Ex. 1), and the emphasis on C $\sharp$ as $\hat{3}$ of A major, which also works potentially as the dominant of F $\sharp$. Miguel Ramirez further elaborates on the source of tonal tension in VI/1 by pointing out 'harmonic and tonal relations by both fifths and chromatic thirds' (2013, p. 162). According to him, the tension between A major and D minor (and C $\sharp$ and F $\sharp$) suggests a fifth relation, while A major and C $\sharp$ together form a chromatic-third relation.

My analysis expands these premises by identifying four major tonal-harmonic forces affecting formal processes throughout the movement, as follows:

1. *The fifth-relation between tonic and dominant.* Despite Bruckner's inclination to chromaticism, this diatonic tonal relation still works as a compelling agent, albeit often in a vestigial form. This is demonstrated by the large-scale tonal scheme, which suggests a departure from A major to E major in the exposition and then a return to A major in the rest of the movement. This relation is also influential (although again in limited ways) at the intra-thematic level, especially when formal articulations are involved.
2. *The fifth-relation between tonic and subdominant.* The A theme's G $\sharp$ and B $\flat$ implicate a pull from I to iv, adding harmonic uncertainty, while the plagal cadences in the exposition and coda instantiate the opposite pull with a sense of resolution.
3. *The tonal instability caused by C $\sharp$ and/or F $\sharp$ (or the 'C $\sharp$ /F $\sharp$ element').* Although this element undoubtedly acts as a force undermining the tonic, it expresses

Ex. 1 Bruckner, Symphony No. 6/i, A1

A1
intro [before-the-beginning]
preparation

presentation [beginning]
establishment
basic idea
establishment

(extension)
elaboration, connection

Majestoso

pp (Vin, VI) p (Vlc., D.b.) mf

A: I iii? (V⁷/vi⁷)

basic idea
elaboration, re-establishment

(extension)
elaboration, connection

iii V⁵/V

continuation [middle/end]
dissolution, elaboration, confrontation

V (E+) F: V/V (G+) V⁶ -₃ I V/vi

(PR)

(standing on the dominant)
stabilisation, dissolution, delimitation

I V (C+) A: V⁷ (E+) (LP)

a relatively mild degree of instability, since it usually appears in largely diatonic contexts (C# as iii or V/vi and F# as vi).

4. *The tonal instability caused by C# and/or F# (or the 'C/F element').* This unstable element brings more explicit chromatic tension while also alluding to modal mixture. It is notable that C and F form hexatonic third-relations with the dominant (E) and tonic (A), respectively.²⁹

The first movement of Bruckner's Sixth Symphony treats these tonal-harmonic implications at various levels of formal syntax, in close association with the expression of musical temporality at those levels, displaying Bruckner's mature sonata concept in a remarkably flowing and straightforward manner.³⁰ The ensuing analysis traces this in detail, primarily following the order of real-time succession in this movement.

The Opening Theme and the Temporal Implication of Brucknerian Thematic Syntax

The opening thematic unit (A1) provides a representative case of how Brucknerian formal syntax works at the lowest intra-thematic level. The phrase structure indicates clear sentential rhetoric easily discernible via the beginning–middle–end paradigm, but the harmony is more or less evasive compared to clear-cut Classical harmonic progressions.

A1 (Ex. 1) suggests a sentential structure, but with some unorthodox elements. The presentation phrase (bars 3–14), marking A1's beginning portion, largely involves the establishment and re-establishment of a basic idea. However, the second half of the presentation (bars 9–14) emphasises the elaboration function through the basic idea's quasi-sequential repetition on C# (iii) and V₅⁶/V, thus challenging Caplin's notion of tonic prolongation for the presentation. The initial statement of the basic idea itself suggests tonic harmony only in an ambiguous way. With the thematic introduction's ('a0', bars 1–2) repeating C# in the background, the theme proper's entrance from bar 3 tentatively establishes A major (retrospectively confirming C#'s status as $\hat{3}$ of A major) by emphasising perfect fifths, both descending and ascending (motives a1 and a1' respectively). As Korstvedt (2001) and Ramirez (2013) point out, however, the triplet motive in bar 4 (a2, which may be seen rhythmically as an augmented variant of a0) still indicates tonal vagueness by temporarily alluding to V⁷/d (along with a Phrygian implication), which suggests a pull to the minor subdominant. This basic idea's two-bar extension (conveyed by the echoing-horn gesture in bars 7–8) further elaborates motive a1 through its transposition to C# (implying V⁷ of F# momentarily with the pitch B), promoting a connection to the next segment (from bar 9), which further clarifies the C# harmony.³¹ This subtle developmental process is realised more confidently through the above-mentioned basic idea's quasi-sequential repetition (bars 9–14) involving the inversion of motive a2 (bar 10). The presentation phrase as a whole displays a sense of gradual growth with this premature developing process (which is

usually associated with the continuation). The sense of beginning is, in this way, gradually eroded by the subtle permeation of the sense of middle, with which the weakly articulated tonic is immediately challenged by the C#/F# element while supporting motivic elaborations.

This nascent developmental process is further intensified in the continuation phrase, which conveys dissolution and elaboration functions, along with a confrontation function to some extent because motive a3, which is an elaboration of a1' (absorbing the dotted rhythm derived from a0), also gives an impression of novelty. This motive is immediately fragmented by its echo in the winds (bar 16) and undergoes further sequence (bars 17–18) and fragmentation (from bar 19), thus generating more tension.³² The harmony here is largely characterised by the C/F element's intrusion. It is not impossible to see bars 17–20 as loosely tonicising F (with a little emphasis on its local dominant, C) as a neighbouring bVI of A major (with a modal mixture) between the two Vs in bars 15 and 21 respectively. However, the way it is approached and exited significantly undermines such a prolongational interpretation owing to the presence of chromatic-third progressions, which can be better captured in terms of neo-Riemannian transformations: a PR transformation between E and G triads (bars 16–17) and an LP transformation between C and E triads (bar 20–21).³³ Therefore, despite the attained V at bar 30, the lack of a clear half-cadential progression preceding it undermines the sense of ending, which is only weakly retained through the standing-on-the-dominant, with the aid of non-harmonic elements such as melodic liquidation and a reduction in texture and dynamics.

While the Caplinian formulation of Classical harmonic progressions supporting formal functions (such as prolongational–sequential–cadential) may not be very apropos here, the underlying principle of stable–unstable–stable with a vestige of Classical harmonic-formal syntax remains relevant. That is, this theme starts with I and ends with V (albeit both weakly articulated) in the home key, thus retaining a sense of beginning and end, and the presentation and continuation are still harmonically differentiated by their relative degree of harmonic instability. The presentation phrase's C#/F# element, although it destabilises the tonic (with the premature sense of middle permeating the formal beginning), can still be explained in the context of diatonic tonality. In contrast, the continuation phrase's C/F element leads to more radical progressions based on chromatic-third relations, thus promoting a higher degree of instability with a more determined sense of middle. In sum, A1 expresses the beginning–middle–end paradigm as a seamless temporal continuum with the emphasis on the middle over the beginning and the end, facilitating a processual and dynamic quality.

The A Group as a Whole and Dynamic Waves

The form-functional overview of the A-theme group (bars 1–49) in Table 1 reveals a further division of the intra-thematic level. A1' – that is, A1's forceful

Table 1 Bruckner, Symphony No. 6/i, A group

Bars	1	3	15	25	37	47
Formal function (Interthematic level)	A [beginning] <i>establishment</i>					
(Intrathematic level 1)	A1 [beginning] <i>establishment</i>	A1' [middle/end] <i>re-establishment elaboration dissolution</i>				
(Intrathematic level 2)	Intro [before-the- beginning] <i>preparation</i>	Presentation [beginning] <i>establishment</i>	Continuation [middle/end] <i>dissolution elaboration delimitation</i>	Presentation [beginning] <i>establishment</i>	Continuation [middle/end] <i>dissolution elaboration delimitation</i>	Link [after-the-end] <i>dissolution connection</i>
Tonal plot	A: I		(iii) →	V (F) V ⁷	I iii	V ⁶ /V → F: V ⁷ (e: Ger. + ⁶)

Ex. 2 Bruckner, Symphony No. 6/i, bars 37–42, harmonic reduction

(A: V/V⁶)

B: I⁶ V f: iv⁶₄ V⁶₅ D^b: I⁶ V g: ii^{#4}₂ V⁶₅ B^b: I V d: i V F: V⁷

([^]VI/F) (ii/F) (IV/F) (vi/F)

tutti restatement (bars 25–48) – operates the re-establishment and elaboration functions at the higher intra-thematic level, mostly preserving the thematic structure of A1 but with considerable harmonic tweaks, which contribute to a dissolution function. The tonic's re-entrance (bars 25–27) succeeding V⁷ promotes the home key's establishment (but still not fully, because of the lack of $\hat{3}$ and the ongoing Phrygian and V/d implications), expressing the sense of beginning for the presentation phrase more explicitly than bars 3–6. However, the permeation of temporal 'mediality' and tonal ambiguity intrinsic to the original thematic idea remain: the progression of V⁴₃–i in F# minor featured in the two-bar extension of the basic idea (bars 29–30) realises the potential of C# as V/vi, signifying the C#/F# element's stronger influence in A1'. The following continuation phrase (from bar 37) revisits the C/F element in a more complex way than A1's counterpart.

As Ex. 2 demonstrates, this phrase is underpinned by linear intervallic patterns, quickly implying a number of local keys (B major, F minor, D^b major, G minor, B^b major and D minor), many of which have close relations to F major/minor, before finally arriving at V⁷/F (bar 47). The standing on the dominant in bars 43–46 seems to form an end to the theme (but non-cadentially, similarly to the end of A1). Then a two-bar link appears at bar 47, first as a suffix of the theme within the ongoing process of motivic dissolution, but eventually providing a connection to the B group by anticipating E minor and integrating the recurring dotted rhythm (motive a3) smoothly into the second-theme materials beginning at bar 49.³⁴ As a result, the previous V⁷/F is retrospectively reinterpreted as a German sixth in E minor, the modulation mediated by the common tone E.³⁵

The harmonic process in which the C/F element facilitates the eventual tonal departure from the home key suggests that A1' (bars 25–48) as a whole operates a dissolution function at a higher level, thereby expressing a larger-scale middle. Thus, although the periodic structure (A1–A1' as a large-scale antecedent–consequent) is visible, the underlying temporality in this theme group leans more towards a sentential kind of temporality, with an emphasis on forward momentum: the temporal relationship of A1 and A1' is similar to that which characterises the presentation and continuation phrases at the lower level.³⁶

At this point, Kurth's (1925) concept of wave dynamics becomes relevant to my reading, as systematic arrangements of dynamics further promote this hierarchical temporal process. The A group has one overarching wave comprising smaller-scale individual waves, almost exactly conforming to the formal syntax discussed so far. A1's presentation embodies a sense of gradual growth through the basic idea's two iterations, first played *p*, then *mf*. A1's continuation facilitates stronger intensification with the ascending sequential motion and the appearance of a crescendo. The sudden *ppp* starting in bar 21 coincides with the thematic ending (and the dominant arrival), seemingly completing one cycle of the dynamic wave at the thematic level. As already discussed, the attainment of the dominant here is far from a half-cadential repose, suggesting unresolved instability (with the seventh chord and the continuing ostinato rhythm). Therefore, A1 as a whole projects a higher-level intensification process: A1's tutti restatement (A1') from bar 25 arises as its logical consequence, followed by a further energetic escalation over the continuation (from bar 37), which exemplifies what Kurth calls 'over-intensification' (*Übersteigerung*). A dynamic dissipation ensues from bar 41, lasting until just the thin line of the flute solo remains in the two-bar linking passage (bars 47–48) before the B group's entrance. Thus, we encounter at least a two-level hierarchical formation of wave dynamics in this group: the waves corresponding to the beginning–middle–end cycle at the level of each thematic unit (bars 1–24 and 25–48, respectively), which could be termed 'thematic waves'; and the wave spanning the entire A group with the hypermetrical downbeat at bar 25, which marks the entrance of the 'apex' or 'high point' (*Höhepunkt*).³⁷ The latter, thanks to the striking climactic event halfway through it, may engage listeners' temporal-dynamic perception more directly. Thus, it would be reasonable to term this kind of wave the 'essential wave', since its close correspondence with a theme group plays a substantial role in creating a sense of form. As is evident in VI/1, Bruckner's expositions usually have three essential waves corresponding to the three theme groups. Each essential wave further dramatises the overarching temporal cycle over the internal thematic units within a theme group, thus strengthening the perception of such thematic units as a unified whole.

Although the harmonic logic certainly remains a background principle to the formal syntax, its resulting temporal unfolding is further highlighted by wave dynamics, which promote more intimate and immediate kinds of temporal experience by evoking vivid kinetic imagery. Equipped with the full paraphernalia of orchestral devices, this play of wave dynamics can produce a wide range of literal dynamics while presenting 'a stratified notion of texture based on the addition and subtraction of instrumental layers' (Horton 2004b, p. 142). In that sense, Bruckner's sonata form is genuinely 'symphonic' in that its formal logic gains more vitality under an orchestral setting.

Table 2 Bruckner, Symphony No. 6/i, B group

Bars	49	57	69	81	95
Formal function	B [middle] <i>confrontation</i> <i>elaboration</i>				
	[beginning]		→	[middle]	→ [end]
	B1 (theme) <i>establishment</i>	B1' (var. 1) <i>re-establishment</i> <i>elaboration</i>	B2 (episode) <i>confrontation</i> <i>elaboration</i>	B1'' (var. 2) <i>re-establishment</i> <i>elaboration</i>	TR <i>connection</i> <i>preparation</i> <i>delimitation</i>
Tonal plot	e: i → B: V (HC?)	e: i → F#: V	D: I → V → E: I (HC)	→ V	♭VI (DC)

The B Group: Variations within the Sonata Process

In contrast to the previous group, which exhibits strong forward motion, the B group suggests a sense of recursion as a competing temporal mode by employing variational elements within the sonata context.³⁸ As Table 2 indicates, this group has four thematic units, which can be seen as a theme (B1) and two variations (B1' and B1'') with an intervening episode (B2).

The peculiar phrase structure of B1 (Ex. 3) provides a basic syntactic pattern around which the entire group revolves. A condensed form of sentential construction can be found here, evoking a mini-sentence design for the first four-bar phrase (bars 49–52). The first two bars establish two motivic ideas in E minor (motives b1 and b2), followed by their re-establishment and elaboration.³⁹ The subsequent two bars' elaboration and dissolution functions are expressed by transforming the triplet bass pattern of motive b2 to a zigzag figure (b2') and by dissolving the E minor tonic with a descending 10–10 linear intervallic pattern. The resulting modulation to B major with a quasi-half-cadential progression (♭II⁶–V⁷ in B major) marks the temporal end of the thematic unit. Thus, an intra-thematic temporal cycle of beginning–middle–end is completed within only four bars. The subsequent four-bar phrase can be understood as a suffix occupying the after-the-end, mainly expressing a stabilisation function with a post-cadential standing-on-the-dominant (V⁷/B) and recurring motivic ideas, in contrast to the brisk harmonic rhythm of the preceding unit. This passage eventually turns out to be a linking passage with a subtle harmonic change (at bar 55) that replaces V⁷/B with ii⁷/e while preserving the bass, thus providing a seamless connection to the next thematic unit in E minor.

Meanwhile, the zigzag motive (b2') is further elaborated to provide a repetitive accompanimental background, while a new dotted-rhythm motive (b3) in the main melody also contributes to the confrontation function, along with the change of key and mode.⁴⁰ With these functions, the phrase counterbalances the preceding four-bar sentence, making a regular eight-bar theme. The resultant temporal pattern of quick motion followed by stasis invariably governs each

Ex. 3 Bruckner, Symphony No. 6/i, B1

B1
mini-sentence
[beginning]
establishment

re-establishment, elaboration

[middle/end]
dissolution, elaboration, delimitation

e: i b2 ii^{o6} i V^{6/4} iv V^{6/5} i⁶ c: iii⁶ IV^{M7} V^{6/5} I⁶ B: ^bII⁶

suffix (standing on the dominant) => link (to B1')
[after-the-end]
stabilisation, confrontation, elaboration, connection

b3

B: V⁷ (HC?) e: ii^{o7}

thematic unit in this group, even including the episodic B2 (bars 69–80). Although this unit introduces new material (thus expressing a confrontation function), the motion–stasis pattern remains with the sequential twofold statement of a basic idea in D major and F major (bars 69–72), followed by a lengthy standing-on-the-dominant (bars 73–80) in D, which, similarly to B1, is transformed into a link with the introduction of vii^{o4}₃/E at bar 77, in order to provide the connection to the next thematic unit, B1''.

Despite this repeated syntactic pattern, the B group expresses a kind of directionality. The presence of the episodic B2 with its confrontation function suggests penetration of a temporal middle into the relatively static variational context. The B1'' unit, which marks the heightened return of the variational theme (expressed via the major mode, *forte* dynamics and rhythmic/textural complexity), further confirms B2's formal status as a contrasting middle in retrospect, thus overdubbing a ternary implication onto a miniature variation set. In other words, the identity of B1'' as another variation is overlaid with its

recapitulatory character as the end part of the ternary form, suggesting a growing sense of teleology. The tonal process realised through the theme and variations also supports this directionality. At the beginning of the B group, E minor enters as a potential subordinate key to initiate the first two thematic statements but ultimately modulates to different keys (V/B, then V/F#, thus promoting a centrifugal tonal movement to some extent). The key of E resolutely returns in the major mode with B1'', and at the end of this unit we finally encounter a root-position V/E, on which a long transitional passage (from bar 95) builds a strong intensification. In other words, the entire tonal process involves a struggle to confirm this key. The wave dynamics also play a role here. Although not as explicit as the A group, the B group's overarching 'essential wave' can be discerned, as evident in the implicit intensification over B1, B1' and B2, the apex in B1'', which enters at bar 81 and lengthens by an over-intensification until bar 86, and the subsequent dynamic dissipation until bar 94. The transition from bar 95 presents what can be termed a 'connective wave', providing a link between the B and C groups with strong teleological rhetoric.⁴¹ This signals a full return to the teleological temporal mode and dissolution of its variational recursive alternative.

While this group facilitates the sense of recursion with variation form, it is also evident that Bruckner skilfully incorporates it into a teleological sonata context, thus achieving temporal diversity without losing forward momentum. In this sense, Bruckner's second theme engages in a dialectical process that presents competing temporalities and their synthesis, playing an essential role for the entire form beyond mere 'alienation' (Darcy 1997) or 'isolation' (Korstvedt 2001). Halm described Bruckner's second theme as the place where 'we no longer feel the passage of time, yet we sense within an urge forward' (Halm 1914, trans. Korstvedt 2004, p. 176), capturing the essence of Bruckner's formal strategy for the B group.

The C Group: the Complete Restoration of Teleology and Achievement of Closure (and the Exposition as a Whole)

The long intensification on V/E at the end of the B group results in a deceptive cadence elided with the C group's entrance in C major. With this, the attempt to confirm E as the exposition's goal key is suspended, while C major (as part of the C/F element) comes to the fore as the primary source of instability at an inter-thematic level, hindering the large-scale tonal journey based on the diatonic fifth relation. The struggle to resolve this crisis acts as a driving force for the entire C group.

The C group's form-functional plan (Table 3) employs three thematic units (C1, C2 and C3, followed by a short post-cadential codetta), which reflects a full restoration of the teleological temporal mode. The C1 unit (Ex. 4) has a loose sentential structure, in which the presentation phrase establishes a diatonic

Table 3 Bruckner, Symphony No. 6/i, C group

Bars	101	111	129	137
Formal function	C [end] <i>confrontation</i> <i>elaboration</i> <i>delimitation</i>			
	C1 [beginning] <i>establishment</i>	C2 [middle] <i>dissolution</i> <i>elaboration</i>	C3 [end] <i>delimitation</i>	Codetta [after-the-end] <i>stabilisation</i>
Tonal plot	C: I → E: V C: I ⁶ → G: V → C: V ⁴ ₃ I → E: iv ^(add6) I (HC) (PC)			

Ex. 4 Bruckner, Symphony No. 6/i, C1

presentation [beginning]
establishment

basic idea
establishment

basic idea (sequential repetition)
re-establishment, elaboration

C: I -⁶ ii -⁶

continuation [middle]
dissolution, elaboration

'standstill' [end]
stabilisation, delimitation

iii -⁶ IV -⁶ V -⁶ vi -⁶ VII? (B: I) -⁶

second as a referential interval for the sequential movement (e–F–G–a–B) of the continuation phrase. This phrase, in turn, expresses a dissolution function with thematic fragmentation and harmonic acceleration. The final four bars are akin to what Arndt (2018) calls ‘standstill’, a small stabilising formal unit with immobile harmony. This standstill expresses the ending function of C1, but very weakly (without a cadence), so that further strong actions are required in the ensuing formal units. C2 is even more unstable and developmental than C1 and retains a looser sentential formal logic. The referential interval established here in the presentation phrase (bars 111–114) is a semitone, which governs the continuation’s (from bar 115) harmonic motion upwards from F# to B $\flat$ and downwards to C before, through a German sixth, finally arriving at V/G (bar 121). The subsequent standing-on-the-dominant is transformed into a linking passage with a subtle harmonic change from V/G to V $\frac{4}{3}$ /C, thus providing a connection to the next thematic unit, C3, which starts in C major with another

Table 4 Bruckner, Symphony No. 6/i, exposition

Bars	1	49	101
Formal function	Exposition [beginning]		
	A [beginning] <i>establishment</i>	B [middle] <i>confrontation</i> <i>elaboration</i>	C [end] <i>confrontation</i> <i>elaboration</i> <i>delimitation</i>
Tonal plot	A: I → F: V ⁷ (e: Ger. ⁺⁶) e: i → E: I V ⁷ C: I → E: iv ^(add6) I (DC) (PC)		

sentential design (presentation in bars 129–132; continuation/cadential in bars 133–137). Despite the subsequent modulation from C major to E major, which signals the overcoming of the chromatic tension caused by the C element to concede to the fifth-relation, C3 is far more diatonic than the preceding units, quelling their developmental processes. The continuation phrase appears to be harmonically static, residing on the subdominant with an added sixth, but its apparent thematic liquidation evokes a sense of motion towards the end. Eventually it reaches the final tonic at bar 137, creating a plagal cadence, which is, although far from Classical, the only reliable tonic resolution in the whole exposition.⁴² A codetta then follows to stabilise the E major tonic.

As Table 3 illustrates, it is notable that the C group’s thematic units, which are themselves loosely sentential, together create an overarching temporal cycle of beginning–middle–end that realises this sentential logic at a higher level. C1 involves an establishment function by providing the group with foundational motives and presenting a rising harmonic movement between adjacent scale degrees as a basic pattern. C2 displays dissolution and elaboration functions: the basic harmonic pattern of C1 is further intensified here with semitonal movement while further elaborating C1’s primary motive. C3 provides a delimitation of the C group with the structural plagal cadence, which not only marks the C group’s ending but also takes responsibility for the whole exposition’s decisive closure. This internal construction suggests a teleological temporal mode, which strongly contrasts with the recursive mode of the previous B group, thus effectively delineating the sense of urgent motion towards the closure.

Table 4 summarises the entire exposition: the A group has an establishment function; the B group and C group mainly provide confrontation in relation to the preceding groups, but they also elaborate some elements from preceding groups, producing inter-thematic continuity to a certain extent. Additionally, the C group provides delimitation for the whole exposition via the plagal cadence in E major. The tonal plot (Ex. 5) is in close association with this functional distribution. The exposition presents not a direct tonal opposition but a gradual tonal journey from the main key (tonic) to the subordinate key (dominant),

Ex. 5 Bruckner, Symphony No. 6/i, exposition, bass diagram

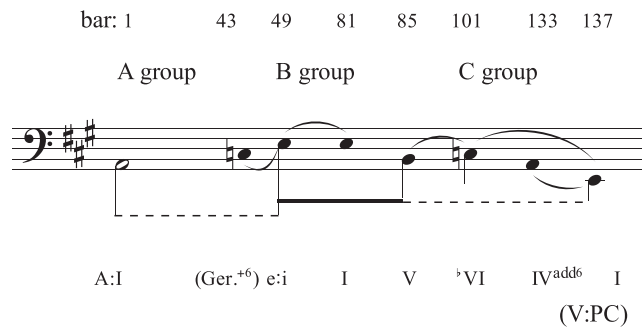


Fig. 2a A model for temporal functions in the exposition (after Caplin 2010)

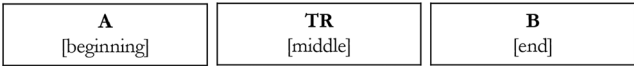
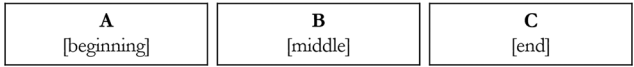


Fig. 2b A modified model for temporal functions in the exposition (for Bruckner)



where the C/F element arises as the major instability to be resolved, and the three theme groups participate almost equally in this process.⁴³

Meanwhile, the beginning, middle and end at the inter-thematic level are manifested differently from Caplin's model (Fig. 2a), where the transition is regarded as the expositional middle between the A and B themes.⁴⁴ On the other hand, as Fig. 2b suggests, in this exposition the transitions between theme groups are treated as local events.⁴⁵ In a sense, however, the majority of the exposition itself also behaves like a gigantic tonal transition involving a large-scale instability, in that constant modulations without cadences across the theme groups produce ceaseless motion with a strong forward thrust until the exposition's final settlement. The clear articulation of three theme groups with the redistribution of the inter-thematic beginning, middle and end helps listeners to navigate the unceasing tonal process by providing strong rhetorical signposts. Bruckner's formal strategies for the sonata exposition demonstrate his efforts to seek formal renovations to accommodate late Romantic idioms, such as frequent modulations with cadential scarcity, formal expansion and thematic individuality, within the boundary of the logical sonata process.

Table 5 Bruckner, Symphony No. 6/i, development

Bars	145	159	167
Formal function	Development [middle]		
	Pre-core [beginning] <i>preparation elaboration</i>	Core [middle] <i>dissolution elaboration</i>	RT (false recapitulation) [end] <i>connection (re-establishment)</i>
Tonal plot	C#: i → f#: i B: V ⁷	G: I ⁶ → e♭: V ⁹⁻¹¹⁻¹³	E♭: I → A♭: I – i A: V ⁶ ₅

Development, Recapitulation and Coda: the Gradual Process of Tonal Homecoming

The form-functional details and tonal process in the development are carefully designed to facilitate the movement’s large-scale teleology while fulfilling the development’s traditional role of generating instability at the large-scale level. Table 5 shows its three-part division into pre-core, core and retransition. The pre-core’s preparation function is evident not only in its rhetorical character (with the relatively reserved dynamic before the more intense subsequent part), but also in its tonal setting, which uses the C#/F# element as the starting point for large-scale instability. In its final bar (bar 158), the F# minor harmony turns into a major harmony with an added seventh so that B minor or major is expected as the next tonal path, potentially evoking the logic of the circle of fifths. However, through a deceptive resolution, the core begins in G major (in first inversion) in bar 159, producing higher unpredictability. The core fulfils its role of ‘project[ing] the sense of “being in the middle”’ (Caplin 2013, p. 429) with a conventional model-sequence-fragmentation pattern while passing briefly through G major, A minor, C major and D♭ major (governed by a large-scale parallel $\frac{6}{3}$ progression) before reaching a dominant arrival in the unexpected E♭ minor. The ensuing retransition (bars 195–208), realised by a false recapitulation of the A theme, has significant implications for the large-scale formal process, blurring the boundary between the development and recapitulation sections.⁴⁶ Its premature re-establishment function restates the first theme in E♭ major, which then modulates to A♭ major, not only weakening the retransition’s ending function but also pre-empting the onset of the true A-theme recapitulation in A major (from bar 209). The way A major enters further supports this sense of overlap as the tonal return is achieved only elusively, without the unequivocal support of a structural dominant in root position: the introduction of V⁶₅ of A major in bar 207 simply transforms the root of the preceding A♭ minor into the leading note of A major (G#). This undermined tonal return motivates further tonal movement in the recapitulation section.

The overview of the large-scale bass progression in the development (Ex. 6a) provides an additional perspective on the formal process. In comparison with its hypothetical counterpart (Ex. 6b), where the unchallenged circle of fifths leads safely to the articulation of V–I in the tonic key, the actual progression

Ex. 6a Bruckner, Symphony No. 6/i, development, bass diagram

bar: 140 155 159 189 195 203 207 209

iii vi (^bVII⁶) V/^bV ^bV ^bI (V⁶) I

Ex. 6b Hypothetical bass diagram for development

iii vi ii V I
(or V/V)

suggests a kind of distorted teleology, which results in reaching distant keys by diverging slightly from the expected path. After articulating C#–F#, the bass B appears only as $\hat{3}$ of G major through a deceptive resolution. After passing through the aforementioned parallel $\frac{6}{3}$ progression, it is then deflected to B $\flat$, from which a new circle of fifths is activated so as to produce E $\flat$ –A $\flat$ instead of E–A. This diversion is urgently corrected by the trick of converting the A $\flat$ as the tonic into G# as the leading note.

This compromised tonal teleology is, however, compensated for by the wave dynamics, which provide more straightforward momentum with a large-scale crescendo over the entire development. Obviously, the development's pre-core, core and retransition have their own individual dynamic waves, which behave similarly to the thematic waves in the expositional theme groups, but those three waves ultimately constitute part of a higher-level single wave – similar in type to the essential wave in the exposition – which has its apex at bar 209 and its end at bar 244 (the end of the A group in the recapitulation). In other words, the development section is wholly occupied by a single large-scale dynamic intensification.⁴⁷ With this, the development section effectively articulates an urgent teleological drive pointing towards the return of the A theme in the home key while leaving room for the recapitulation section to strive further for a complete tonal return.

Given the formal processes so far, the Classical tendency of staying in the tonic key throughout the recapitulation does not offer an effective solution. Table 6 summarises the recapitulation's tonal progress in accordance with its inter-thematic formal functions. Remarkably, the whole tonal process resembles a large-scale cadential progression: I–vi–IV–V–I. A crucial point arrives when the A group closes with V/F# before the B group enters in F# minor. As Korstvedt

Table 6 Bruckner, Symphony No. 6/i, recapitulation and coda

Bars	209	245	285	309
Formal function	Recapitulation [end]			Coda [after-the-end]
	A [beginning] <i>establishment</i>	B [middle] <i>confrontation elaboration</i>	C [end] <i>confrontation elaboration delimitation</i>	
Tonal plot	A: I → ♯: V ⁷ ♯: i → F♯: V ⁷ D: I → A: V I → IV (iv) I (IAC?) (PC)			

points out, this setting ‘resolves the implication of C $\sharp$ as the dominant of an unheard tonic F $\sharp$ ’ (2001, p. 191). This is also the moment the C $\sharp$ /F $\sharp$ element comes fully to the fore as a structural tonal event at the inter-thematic level. In retrospect, however, the rise of F $\sharp$ minor, coupled with the subsequent D major (again, introduced through a deceptive resolution of V/ $\sharp$) in the C group, forms an essential part of the movement’s large-scale diatonicism, resolving the more chromatic tension caused by C $\natural$ (notably in the C group) in the exposition.

The changes applied to the B and C recapitulation (in comparison to the corresponding groups in the exposition) can be explained in relation to this tonal process. Because the B group’s F $\sharp$ here serves an intermediate role rather than establishing a potential goal in analogy with E in the exposition, Bruckner has no need to emphasise V/F $\sharp$ at the B group’s end with any teleological intensification: instead, the music stays on V/F $\sharp$ in bars 277–285 with decreasing dynamics before the sudden entrance of the C group in D major. C3 is also entirely omitted to accommodate V/A from bar 305 (corresponding with bar 121 in the exposition, which marks a dominant arrival in G major); this can be seen as a structural dominant before its tonic resolution at bar 309, where the coda begins. However, a literal cadence, the last piece of the puzzle expected at the end of recapitulation, is only suggested in a significantly provisional form. The V⁷–I progression here could be regarded, at best, as an IAC, which is elided with the restatement of the A theme beginning with $\hat{5}$ in the coda.⁴⁸

This dubious expression of cadence engenders a further desire for more definitive closure with rhetorical strength equivalent to the end of the exposition. This task is inevitably undertaken by the coda, which can be understood in the context of the ongoing continuous process (involving the previous development and recapitulation) of returning to and securing the home key. To support this, Bruckner situates the coda within a large-scale dynamic wave of intensification, producing a strong teleological drive towards the apex at bar 353, where he opts again for a final plagal cadence, creating a striking parallel to the plagal cadence in the exposition as well as resolving the tonal uncertainty introduced by the allusion to V/d in the opening theme.

The coda’s extraordinary harmonic progressions can be explained in this light. Ramirez characterises the coda’s harmony as ‘juxtapositions of triads

Ex. 7 Bruckner, Symphony No. 6/i, coda, bass diagram and formal functions

bar: 309 313 317 321 325 329 337 345 353

Phase 1 [beginning] establishment
model seq.1 seq.2 seq.3 seq.4
Phase 2 [middle] dissolution, elaboration
cont.1 cont.2 cont.3
Phase 3 [end] delimitation
cadential

(PL) (PL) (RP) (PL) (PL) (PL)

chord: A $\sharp$ D $\flat$ A $\flat$ E B G D A E B E A $\sharp$ C $\sharp$ B $\flat$ F C G E $\flat$ C $\flat$ F $\sharp$ D A B $\flat$ F G $\flat$ D $\flat$ F $\sharp$ C $\sharp$ D-d A

(A: I vi) (A: IV I V V/V V I vi V/vi) (D: I V $\flat$ VI B $\flat$: I V $\flat$ VI G $\flat$: I V I V $\flat$ VI A: IV-iv I)

whose roots are related by perfect fifths and chromatic major thirds' (2013, p. 165), using neo-Riemannian terms. This harmonic logic can be further clarified by considering its form-functional context, which sufficiently complies with the coda's teleological urgency. Ex. 7 illustrates the coda's bass progressions with the form-functional details, which are identified as comprising three phases expressing the beginning, middle and end, respectively, similar to the developmental core with a sentential kind of syntax.⁴⁹

Notably, despite numerous chromatic progressions, A major and D major chords (highlighted by stems and a dashed beam in Ex. 7) articulate form-functionally important points (especially between each large phase), thereby securing the overall sense of A major but through plagal motions rather than authentic ones. The confirmation of the home key through the emphasis on the subdominant and plagal motions is undoubtedly a response to the previous subdominant implication. There are also additional elements that respond to the various harmonic implications foreshadowed earlier. For instance, the coda's initial progression to $\sharp$ F and D $\flat$ (enharmonically C $\sharp$) in bars 309–317 suggests that the C $\sharp$ /F $\sharp$ implication is once again utilised as a starting point towards further instability.⁵⁰ This C $\sharp$ /F $\sharp$ complex recurs at several form-functionally important points, including the end of continuation 1 and the end of continuation 3. The full exploration of harmony in chromatic-third relation (primarily realised through PLs in the coda) can also be interpreted as a reaction to the occasional explorations of this type of relation earlier (often triggered by the C/F element, as seen in the opening theme).

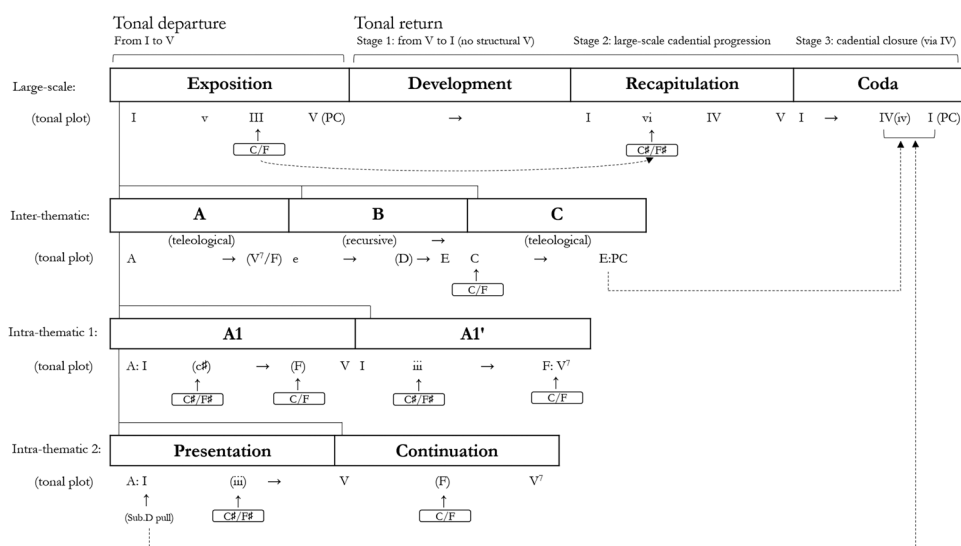
These harmonic complexities present in the coda are generally arranged so that they gradually increase the tonal instability in line with the large-scale sentential syntax with a strong sense of temporal directionality until the final closure is reached. Phase 1 (bars 309–328) delves into the regular alternations of the plagal and PL progressions until reaching D major through a model-sequence procedure. Phase 2 (bars 329–352), with its three continuation phrases, which are characterised by thematic fragmentation, further ventures into distant tonal areas with different harmonic patterns. Continuation 3 is particularly remarkable with its consecutive operations of a plagal and deceptive

resolution (I–V→VI), which enable swift exploration of a pair of hexatonically related harmonic fields (D–B $\flat$ –G $\flat$ and A–F–D $\flat$), thus maximising tonal intensity. This results in the last appearance of the C $\sharp$ /F $\sharp$ element (bars 349–352), which is finally purged by the forceful entrance of D major, the subdominant of the home key, through another deceptive resolution (referencing the harmonic progression between the B and C groups in the recapitulation). This harmony that initiates phase 3 (bars 353–369), as Korstvedt notes, is ‘a delayed response to the emphasis on the dominant of D in the opening thematic statement’ (2001, p. 193). This subdominant implication is finally resolved by the plagal cadence, which is expressed by the closing progression IV–iv–vii^{o6}₅–I in A major, with a triple-*forte* tutti.

In sum, the coda recasts various harmonic implications foreshadowed in the previous sections (such as chromatic-third progressions, the C $\sharp$ /F $\sharp$ instability and deceptive motions) and effectively integrates their resolutions into the teleological process (supported both form-functionally and dynamically) towards the final plagal cadence, which itself undoes the opening theme’s V/d implication. In this way the coda successfully realises the final stage in the process of tonal return which has been ongoing since the development. This perspective challenges Darcy’s (1997) frame, which posits a failed recapitulation (with an alienated secondary theme) and redemptive coda, since these two large sections sufficiently fulfil their roles in the context of the purposefully continuous and gradational process of tonal return. The coda completes this unbroken process, rather than correcting a formal failure.

If we agree that the essence of sonata form lies in the expression of linear temporal progress underpinned by the dialectical overcoming of musical instability at different hierarchical formal levels (as suggested in Fig. 1 above), then the first movement of Bruckner’s Sixth Symphony certainly displays ample evidence of such a process. Based on this understanding, Fig. 3 appraises the movement’s overall formal conception, focusing on how each level addresses tonal/harmonic instability. The lowest level (intra-thematic level 2) exhibits a process that erodes the initial tonic (which is itself ambiguously cast with the implicit subdominant pull) through two kinds of dissonant elements – the more diatonic C $\sharp$ /F $\sharp$ element and the more chromatic C/F element – in the opening thematic unit (A1). This process facilitates a gradual temporal unfolding (directed towards the temporal middle), aligning with the sentential syntax. Its final dominant chord temporarily settles the instability caused by these elements to express a thematic end, albeit not definitively, so as to reserve the more robust sense of ending for higher-level formal events. At intra-thematic level 1, the doubly sentential formal logic (see again Table 1) in the A group accommodates the intensified reiteration of the dissonant elements and hence expresses a stronger sense of the temporal middle. The resultant final chord,

Fig. 3 Bruckner, Symphony No. 6/i, complete sonata design



V⁷/F, articulates the formal end at this level only with the aid of dynamic and textural manipulation, but this signals a tonal departure from the home key under the influence of the C/F element. The inter-thematic level situates the expression of tonal instability in the gradual tonal journey from A major to E major (which is settled only by the plagal cadence at the very end of the exposition). At the same time, the C/F element arises as the crucial agent for instability at this level, involving both the A–B and B–C groups' boundaries. This expositional process is further enriched by the dialectic discourse of two contrasting temporal modes (teleological and recursive), supported by the internal formal process of each theme group.

The sonata form as a whole aptly responds to the dynamic processes bequeathed by the lower levels in a way that points towards the renovation of the sonata principle. The Classical sonata narrative, with its direct tonal opposition and resolution, is reinterpreted here as the exposition's continuous tonal departure followed by a gradual journey homeward, to which each subsequent large-scale part makes meaningful contributions in three stages.⁵¹ After the development delineates a provisional tonal return (with the elusive expression of the home-key return at its end), the recapitulation provides a more fundamental sense of return through a large-scale cadential progression in which the C#F# element plays a crucial role in responding to the exposition's tonal process with the more chromatic C/F element, thereby expressing an adequate sense of resolution even given the recapitulation's tonal mobility. Finally, the definitive tonal return is expressed by the coda, which presents its plagal cadence as the ultimate closure with strongly emphasised rhetoric while

resolving harmonic implications (especially subdominant-orientated elements) foreshadowed before.

This reading points to broader formal implications of ‘the dissonant tonal complex’ (Korstvedt 2001), originally envisaged as an alternative driving force for the sonata process, whose explanation is solely tied to the first-theme statements throughout the movement. The form-functional analysis employed here uncovers the more pervasive influence of such dissonant elements. They serve as the primary source of instability across various formal levels, deeply engaging in sonata form’s inherently hierarchical temporal process. This perspective explains the seemingly unusual tonal settings – for instance, those around the second theme, often considered ‘alienated’ (Darcy 1997) – as the composer’s deliberate arrangements to bolster this process. Bruckner’s strategy of featuring the germination of local-level harmonic instability in coordination with the large-scale tonal journey and its close interaction with hierarchical formal syntax, as exemplified in this movement, is the very core of Bruckner’s mature sonata conception.⁵² It manifests the composer’s meticulous endeavour to embody the Classical ideal of sonata dynamism in a manner befitting the late Romantic context.

Finally, my analysis discloses two key aspects that underlie this processual formal conception in a way that responds productively to Halm’s and Kurth’s pioneering accounts of Brucknerian dynamic form in a modern theoretical context. The first is Bruckner’s consistent tactic of expressing continuous temporality across discrete formal entities. The emphatic presence of easily discernible grouping structures at every level – as is especially evident in the well-balanced three-theme exposition – reflects in part formal Classicism, but also functions as a vessel through which to manifest thematic individuality and contrast in ways more commonly associated with Romantic aesthetics. This ostensible formal discreteness is, however, governed by the expression of continuous temporal progress utilising late Romantic harmonic/tonal languages that foreground chromaticism, constant modulation and cadential sparsity, all of which ultimately generate even stronger goal directness by escalating a desire for eventual stabilisation. This aspect – temporal continuity over discrete formal groupings – resonates with Halm’s idea of ‘epic succession’, the principle by which Bruckner could pursue both thematic individuality and teleological continuity (or ‘corporeality’ and ‘consequentiality’, in Halm’s terms) at the same time.⁵³ My approach further concretises such consequential logic by tracing form-functional continuity as illustrated through the beginning–middle–end paradigm, which is largely generated by the process of addressing harmonic instability at a given level.

Another important aspect is the systematic arrangement of these continuous temporal strata at various levels, which interact closely with one another to achieve a consistent flow and large-scale formal narrative. My attention to this hierarchical temporal disposition as the conceptual formal background resonates with what Kurth envisioned in his approach, which is based on hierarchically

constructed wave dynamics. My analysis, however, complements his energeticist model with a more pitch-centred framework based on harmonic/tonal stability and instability, which is in line with a form-functional approach while it recognises the subsidiary role of dynamic waves as the agent that further dramatises harmony-based formal syntax. In this way, my reading revives and reinterprets some insightful ideas from these early Bruckner proponents in light of the latest developments in present-day formal theories. It thus exemplifies the beneficial impact of the new *Formenlehre*, providing significant advancement in comprehending Bruckner's richly complex sonata form.

NOTES

1. The original source of Dömpke's review is the *Wiener Allgemeine Zeitung*, 30 March 1886, quoted in Göllicher and Auer ([1922–37] 1974), vol. 4, pt. 2, p. 438.
2. This kind of stance has been especially prevalent in the English-speaking world for a long time, as exemplified in some writings of earlier influential commentators such as Donald Francis Tovey. For him, Bruckner's 'pyramidal style' is nothing more than the outcome of a mismatch of the Wagnerian style and the superficially understood sonata outline. See Tovey (1935), esp. p. 74. A similar sentiment is shared by Robert Simpson in his monograph *The Essence of Bruckner* (1967). Although he has a more favourable attitude towards Bruckner, he still adheres to the view that detaches Bruckner's form from the Beethovenian dynamic paradigm, especially when he defines Bruckner's music as the 'patient search for pacification' (p. 232). For more extensive discussions on the British reception of Bruckner, see Horton (2018a).
3. Halm differentiates consequentiality from mere sequentiality. For him, 'the more sequentiality [*Aufeinanderfolge*] becomes consequentiality [*Folgerichtigkeit*] [...] the better is the sonata' (cited and trans. Rothfarb 2009, p. 114). Halm's comparison of Mozart and Beethoven is especially telling in this respect: for him, while Mozart's sonata forms often 'lack formal consequentiality and temporal differentiation among closural passages' (ibid.), Beethoven's music more often 'drives relentlessly forward, without interruptive, closural cadences' (ibid., p. 78) until it settles down, for instance at the very end of the exposition. It is notable that such avoidance of closure, which results in generating forward drive, is also one of Bruckner's important formal strategies, as will be discussed later.
4. According to Rothfarb (2005), Halm contrasted the idea of 'corporeality' (*Körperlichkeit*) with that of 'spirituality' (*Geistigkeit*) and placed more value on the former. For Halm, 'music is sufficiently spiritual by nature

and therefore does not need further spiritualisation through compositional means' (ibid., p. 124). This view demonstrates a point of disagreement with Schenker. For Halm, Schenker's theory (especially the concept of the *Ursatz*) is too 'spiritual' or even 'esoteric', underrating too much the aspect of 'aural immediacy' generated from the musical surface. This dispute led them to opposite opinions about Bruckner and Brahms. In response to Schenker's criticism of Bruckner as 'too much a foreground designer', Halm praised Bruckner's ability to delineate such a vivid musical surface, which directly appeals to a listener's perception (ibid., p. 122). On the other hand, Halm did not share Schenker's reverence for Brahms, whose music, for Halm, often lacked corporeality.

5. Ernst Kurth's two-volume monograph, *Bruckner* (1925), remains one of the most important large-scale studies on Bruckner's symphonies in the German-speaking world. Although a full translation into English has not yet been undertaken, some essential parts of the book, which reveal Kurth's core ideas, are translated and edited by Lee Rothfarb in *Ernst Kurth: Selective Writings* (1991).
6. As Miguel Ramirez points out, in Kurth's studies of Bruckner, 'he did not attempt to integrate harmony and tonality as central elements in his energeticist approach to Bruckner's oeuvre' (2009, p. 13).
7. Frisch states that 'Bruckner's harmonic procedures bear little resemblance to the conventions of the Beethoven–Mendelssohn–Schumann symphonic tradition that Brahms inherited. Although they owe something to Schubert and even more to Wagner [...], these techniques also represent an idiosyncratic use of what were aptly characterised by the early twentieth-century writer Ernst Kurth as "symphonic waves". It is these waves or wave forms, rather than conventional Classic-Romantic phrase structures and harmonic progressions, that in Bruckner's best music fill the musical space (another Kurthian metaphor) so compellingly' (2003, p. 27).
8. The term 'new *Formenlehre*' was first used by Matthew Riley (2010).
9. Caplin (2010, p. 25) acknowledges that the beginning–middle–end paradigm was originally suggested by Kofi Agawu (1991).
10. Like Cooke, Darcy associates this sense of redemption with Bruckner's religious faith, suggesting that Bruckner's form 'may be interpreted as a statement of the inadequacy of merely human activity and the necessity of redemption from outside' (1997, p. 277).
11. According to Korstvedt, the second theme displays only a slight connection to the large-scale process in that 'the tonic/dominant relationship established between primary and secondary thematic passages in the exposition helps establish A as the tonal centre, and the recapitulation of

the second theme group in F# helps to resolve the structural dissonance centred on C#’ (2001, p. 199). In a later essay, Korstvedt tries to explain the existence of such isolated second themes by using the concept of what Charles Rosen calls a ‘Romantic fragment’, which ‘is, or should be, a finished form: it is the content that is incomplete – or, rather, that develops further with each reading’ (Korstvedt 2004, p. 188, citing Rosen 1995, p. 50). For Korstvedt, because Bruckner’s second themes are ‘self-subsisting units whose meaning, but not form, “develops further with each reading”[,] Bruckner’s theme groups can return essentially unchanged, if often tonally alienated, yet still with new meaning in the recapitulation’ (ibid.).

12. According to Horton (2018b), Bruckner’s employment of a reversed recapitulation for this movement is essential for this teleology: whereas the E orbit gradually loses its hegemony to the other orbits in the exposition, the opposite happens through the reversed recapitulation, the primacy of E major being conceded only at the end through the first-theme reprise.
13. The question of whether the voice-leading and harmonic phenomena in Bruckner’s music can be adequately explained by the Schenkerian concept of prolongation is still subject to debate. Putting aside Schenker’s own objection to Bruckner, numerous commentators, including Puffett (1999), Horton (2004a and 2018b) and Ramirez (2013), have shared scepticism about applying a Schenkerian approach to Bruckner’s music, owing to the lack of orthodox fundamental lines, the scarcity of clear authentic cadences and extensive chromaticism. This article, while not providing a full application of the Schenkerian perspective, will contain bass diagrams to illuminate some salient harmonic and voice-leading events, which may not necessarily be prolongational in a strict Schenkerian sense.
14. However, as Anne Hyland points out, for sonata theory, such temporal goals exist ‘only in relation to the spatial elements of the form’: in other words, the theory ‘subordinat[es] a temporal process to the principles of a prefabricated, spatially defined mould’ (2009, p. 112).
15. Horton argues that ‘Caplin’s insistence that formal function depends upon harmonic progression remains critical for Bruckner’, but with the caveat that ‘the extremity of Bruckner’s intra-thematic modulations dislocates the Classical tonal relationship between presentation and closure, as well as the prolongational integration of the ultimate tonic and the keys premised by intra-thematic functions’ (2018b, p. 279). In order to alleviate the problem arising from this distance between Brucknerian and Classical harmonic practice, in this article the temporal implication of beginning–middle–end is based on more abstract relationships between harmonic stability and

instability, rather than relying on a rigorously defined system of harmonic progressions as found in Caplin (1998, pp. 23–31).

16. Aside from sequential progression, Caplin suggests acceleration in harmonic rhythm, phrase-structural fragmentation and increasing surface rhythm as the features of continuation (medial) function. See Caplin (1998, pp. 10–12).
17. This flexibility is vital, since Caplin's concepts tend to be defined rigorously on the basis of Classical harmony. For instance, according to Caplin's definition of 'sentence', the presentation function should be based on tonic prolongation, and the thematic closure should be supported by a proper cadential progression. However, the majority of Bruckner's sentential themes do not fulfil these requirements, as will be shown in Ex. 1.
18. It should be noted that the concept of delimitation does not necessarily require a full realisation of a cadence. This is suitable to take into account the growing tendency of non-cadential formal articulations in late Romantic repertoire such as Bruckner's music.
19. For example, the establishment function (as found in the presentation phrase of a sentence, for instance) is not necessarily based on a strong confirmation of the tonic. A presentation may establish a conflict between tonic and non-tonic elements, which may be further intensified in the ensuing parts, as found in many of the opening themes of Bruckner's late symphonies, including the first theme of the Sixth, which will be discussed in the section on analysis. The opening theme of the Eighth Symphony is another example. As Horton notes, its presentation phrase, instead of establishing an unequivocal tonic basis, constructs 'an immediate tonal dialectic, which places C minor as the premise in direct conflict with D $\flat$ as the counter-premise' (2017, p. 181).
20. In what Caplin terms 'presentation', for instance, the meanings of both presentation function and presentation phrase are mixed. In Arndt's framework, we can say that the presentation phrase has an establishment function. If we apply the same function to higher levels, the main theme has the establishment function at the inter-thematic level, and the exposition also has the establishment function at the large-scale level.
21. For instance, the middle created by a confrontation may emphasise a sense of discontinuity, while a dissolution may promote a more continuous kind of middle.
22. For example, the second iteration of a basic idea in the sentence mainly operates the re-establishment function, thus corroborating the establishment function of the presentation phrase as a whole. However, if the basic idea is repeated in a different harmonic context (such as

a sequential repetition, as very often found in Bruckner's themes), the elaboration function may be more pronounced, such that the temporal quality of the middle also arises to some extent within the overall beginning context.

23. A thematic unit expresses the smallest meaningful temporal cycle of beginning–middle–end, while a theme group has its own temporal cycle at the higher level, which is expressed by its constituent thematic units. According to Caplin's definition, the concept of the 'thematic unit' includes a 'theme' and a 'themelike unit': a theme is a unit 'consisting of a conventional set of initiating, medial, and ending intrathematic functions' which 'must close with a cadence'; a theme-like unit, on the other hand, 'resembles a theme in formal organization but is usually looser and is not required to close with a cadence' (1998, p. 157). My usage of the term 'thematic unit' is for the most part in line with Caplin's definition, but a rigorous distinction between a theme and a theme-like unit based upon cadential closure is not favoured here, as a cadence is such a rare event in Bruckner's music that a strict application of Caplin's terms would make the majority of Bruckner's expositional thematic units just theme-like units rather than themes proper.
24. The use of this labelling with A, B and C (over Caplin's system with MT and ST), which is also instantiated by Horton (2016 and 2018b) and Hyland (2016), is motivated by my intention to accommodate more conveniently Bruckner's obvious tendency of using three distinctive theme groups. The sonata-theoretical labelling convention with the primary theme (P), secondary theme (S) and closing theme (C), despite its application in some Bruckner studies (most notably Darcy 1997), also risks some confusion, since, in many cases, Bruckner's third theme does not begin with an authentic cadence, which is the fundamental requirement that defines Hepokoski and Darcy's concept of a 'closing zone' as a post-EEC zone.
25. In addition to this nomenclature for formal indications, a notational convention using the alphabetical representation this article employs should be clarified: major and minor keys/triads are represented by capital letters and lowercase letters, respectively, unless accompanied by the suffix 'major' or 'minor'.
26. The usage of 'VI/1' follows the labelling system employed by Darcy (1997) and Lai (2018).
27. Dahlhaus argues that 'Bruckner's symphonic style, however, unlike that of Brahms's chamber music or Wagner's music dramas, is primarily rhythmic rather than diastematic, and thus seems to stand the usual hierarchy of tonal properties on its head' (1989, p. 272). Although Dahlhaus does

- not entirely rule out the aspect of pitch structure, according to him, 'Bruckner's method of motivic association resided in playing around with pitch structures as though intervals did not really count' (ibid., p. 273).
28. According to Korstvedt, this kind of duality is a key feature of Brucknerian form in general, which has caused polarised views 'ranging from the accusation of "formlessness" to the claim that Bruckner's symphonies represent a pinnacle in the evolution of musical form' (2004, p. 170).
 29. It is also worth noting that F forms a hexatonic cycle with A and C#. The tension between F and A appears in a more radical form in the finale, where F minor and A major are juxtaposed in the coda, thus expressing a 'hexatonic polar' relation (Cohn 1996), as discussed in Ramirez (2013, p. 169). A more large-scale hexatonic implication can be found in VII/4; Horton (2018b) understands it as being generated by the tonal orbits of E, A $\flat$ and C.
 30. Notably, Bruckner's Sixth Symphony, as well as the Fifth, Seventh and Ninth, is one of his least revised works, a possible sign of the composer's confidence in his formal conception.
 31. Interestingly, Bruckner removes the implication of V⁷/vi (lacking the pitch B) from bar 9 so that it sounds closer to a genuine iii, although the lack of the third still mystifies the exact modal quality of this chord.
 32. The echoing gesture at bars 15–16 is, in its much-reduced temporal span, reminiscent of the antiphonal structure between the low strings and the horn (bars 3–8) in the presentation. What is subject to the dissolution process here is not only motivic elements but also the antiphonal gesture itself.
 33. Ramirez (2013) also explains chromatic-third progressions in this movement (although primarily focusing on the coda, without specific comments on this passage) by using the neo-Riemannian terminologies developed by Brian Hyer (1995) and Richard Cohn (2012). The relation between the two dominants in this phrase can be described as 'associative' rather than 'prolongational', following Horton's remark (in his explanation of the system of tonal orbits in Bruckner) that 'the connections between tonally consistent non-adjacent segments are *associative*, because the intervening music interrupts rather than reinforces prolongation' (2018b, p. 288). For more extensive discussions on the distinction between 'association' and 'prolongation', see also Joseph N. Straus (1987).
 34. As Horton (2014) notes, Schenker's concept of 'linkage technique' (*Knüpftechnik*) may be applicable to this situation, which can be considered a counterexample against the complaint (including Schenker's own) about the alleged discontinuity in Brucknerian form. For a more detailed

discussion of the linear motivic process in the A group, including this passage, see Horton (2014, pp. 98–100).

35. This progression can also be identified as an L transformation, with the hexatonic implication reminiscent of the LP progression (between C major and E major triads) in bars 20–21, again exemplifying the tension and interaction between the fifth-relation and the chromatic third-relation.
36. As Table 1 indicates, the beginning–middle–end relationship at the phrase level is copied at the thematic-unit level. Through this formal construction, Bruckner incorporates the conventional transition function into the context of the thematic statement, downgrading its formal level to the intra-thematic level 1 (an issue which will be revisited later in this article). In this sense, the whole first-theme section (A1–A1') resembles the Classical 'grand antecedent–dissolving consequent' design (Hepokoski and Darcy 2006). Or one could find Janet Schmalfeldt's (2011) concept of 'becoming' useful in this situation, which would be represented as $A1' \Rightarrow TR$. However, it should be noted that the overall syntactic structure of A1 is kept almost intact in A1'. The re-establishment function of A1' is undamaged by other functions and coexists with them. Thus, it is possible to see this thematic unit as both A1' (restatement of A1) and transition simultaneously. This situation seems to resonate with the modified concept of 'becoming' suggested by Nathan Martin and Steven Vande Moortele (2014, p. 148), which is represented by a double arrow (such as $A1' \Leftrightarrow TR$) that expresses 'a form-functional situation that is internally dynamic – one that bounces back and forth between conflicting form-functional profiles – but that in the larger scheme is entirely static'.
37. This apex extends to bar 41 by over-intensification, which is not an unusual case for Bruckner; as Kurth notes, 'Bruckner's high points are often not isolated moments but tremendously forceful events within the total span of high points' ('Bruckners Höhepunkte sind häufig kein Augenblick sondern fantastisch Gewaltereignisse ganzer Höhepunktstrecken') (1925, p. 411).
38. The use of variations in sonata form can also be found in much of Schubert's instrumental music, most notably in the first movement of the String Quartet in G, D. 884. Hyland's (2016) analysis of that piece thoroughly addresses this issue, focusing on the juxtaposition of two competing temporalities – teleological time expressed by the first theme and variational time by the second theme – which resonates strongly with Bruckner's case.
39. Both of these motives have some connection with the A-theme elements: the rising dotted-rhythm figure (motive b1) of the first violin is derived from motive a3; the bass accompaniment figure (motive b2) with two triplets – thus causing a metrical conflict (triple against duple) – can trace their rhythmic root to motive a2.

40. This motive b3 is highly affiliated with the martial rhythm of the A-theme material, especially motive a3.
41. This connective wave has its apex with the *fortissimo* at the beginning of the C group (bar 101), which is further extended through an over-intensification to bars 107–110, marked triple-*forte*, before the essential wave governing the C group commences belatedly from bar 111. Other examples of the connective wave between the B and C groups can be found in III/1 and VII/1.
42. Apart from VI/1, Bruckner frequently employs this motion, for instance, in the expositional endings of III/1 and IX/1 or in the codas of IV/1, VII/1 and VIII/4 (in the latter two cases, the plagal motions involve the interpolation of vii). Related to this issue, Schmalfeldt (2022) explores the possibility of understanding the plagal cadence as part of a Romantic tendency towards the inclusion of the subdominant for the articulation of closure in certain expressive contexts.
43. As Ex. 5 demonstrates, the E major (bar 137) attained through the plagal cadence can be seen as a delayed response to the dominant of E in bar 85. However, the connection between them should be understood as associative rather prolongational. In the graph, the dotted beam is used to indicate such an associative relationship.
44. See Caplin (2010, pp. 25–29), especially Figs. 1.3 and 1.4.
45. This trait applies to most of Bruckner's other sonata expositions as well. It is worth noting that the lack of more fundamental and fluid kinds of transitions (such as those found in Brahms, for instance) was one of the main arguments from Bruckner's opponents denouncing his form, as is evident in Schenker's (1908) 'potpourri' claim, mentioned earlier in this article.
46. Eric Lai also acknowledges the false recapitulation as one of Bruckner's important compositional techniques to reflect the composer's bipartite view of sonata form in which the development and recapitulation are considered together as one larger continuous formal space. See Lai (2018), esp. pp. 345–53.
47. The fact that this wave lasts until the end of the A group in the recapitulation also contributes to the blurred boundary between the development and recapitulation.
48. Alternatively, one could question whether this is really an authentic cadence at all, since the dominant is better seen as having an ultimate position rather than a penultimate one. Note that the seventh and the leading note in V⁷ are not directly resolved in I, at least in the same register.

49. In this graph, the progressions involving chromatic third-relations are indicated by angular brackets, while slurs are used for the fifth-related progressions.
50. Resonating with this reading, Korstvedt describes the F# minor chord in bar 313 as 'the crucial degree', on which the A-theme idea is 'recast as a pure triad' (2001, p. 193).
51. Along with the practice of blurring the boundary between the development and recapitulation previously discussed (see n. 44 above), this tonal narrative can also be associated with Bruckner's bipartite sonata conception, which regards the exposition as the first part and the rest of the movement as the second part. For a discussion of how Bruckner's educational background might have influenced this two-part sonata conception, see Hawkshaw (2001).
52. Horton addresses the aspect of dissonant elements and their engagement in large-scale tonal structure as part of Bruckner's general tonal strategy that is 'common to the symphonies at least from the Fourth onwards' (2004a, p. 115). How this aspect generally impacts the issue of formal syntax in Bruckner's symphonic first movements is extensively discussed in Kim (2024).
53. Bruckner's use of a dissonant tonal complex in the first theme can also be understood in this light. Not only do those dissonant elements engage in shaping large-scale teleology, but they also function as the means of enriching thematic imagination in Bruckner's characteristic long breaths, which might be necessary to address such harmonic irregularity.

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ABSTRACT

The timeworn view that Bruckner's sonata form is a motionless architecture devoid of dynamic processes has long contributed his isolation from the mainstream post-Beethovenian tradition. Taking inspiration from August Halm's (1914) and Ernst Kurth's (1925) approaches, which were aimed at overcoming this view, this article seeks to elucidate the processual aspects of Bruckner's symphonic form in light of recent theoretical developments in musical form. Specifically, it combines William Caplin's form-functional theory (1998), especially its beginning–middle–end paradigm, with Matthew Arndt's (2018) reconception of formal functionality to construct a new framework for the analysis of Bruckner's symphonic forms.

By way of an analytical case study of the first movement of Bruckner's Sixth Symphony, the article reveals that the expression of continuous motion occurring across discrete formal entities, often further dramatised by 'wave dynamics' (Kurth 1925), is fundamental to Bruckner's reinvigoration of sonata form's inherent temporal process in a post-Romantic context. In the exposition, the inter-thematic beginning, middle and end paradigms are redistributed to the three thematic groups, which express their unique temporal domain while delineating a continuous tonal journey from the home key to the subordinate key. The remainder of the movement articulates a gradual journey of homecoming, with each subsequent large-scale part addressing previously suggested tonal implications. Ultimately, the modified form-functional approach adopted in this study sheds light on Bruckner's exceptional care for formal syntax on various levels of structure, and its close association with an overarching, though unconventional, tonal plot.