NAOMI WALTHAM-SMITH

FORM AND REPETITION: DELEUZE, GUILLAUME AND SONATA THEORY

Repetition and Fate in Mozart's Piano Concerto K. 491

> My formula for greatness in a human being is *amor fati*. That one wants nothing to be different, not forward, not backwards, not in all eternity. Not merely bear what is necessary, still less conceal it – all idealism is mendaciousness in the face of what is necessary – but *love* it. (Nietzsche [1908] 1990, p. 258)

If the first movement of Mozart's second minor-mode piano concerto evokes a darker and even more 'fatalistic' (Hepokoski and Darcy 2006, p. 493) tone than the first, the soloist is arguably equally more determined to evade – or at least postpone – rather than embrace their fate.[1] While Nietzsche saw an intimate connection between the return of the same and an *amor fati* that wills the future as much as the past, this movement also mobilises repetition as a means of deferral. Instead of conveying affirmation of what is, it uses repetition to suggest tension, even dread. Two different strands of repetition serve as instruments of deferral, both of which are used in the solo exposition to hold off the inevitable essential expositional closure (EEC) for as long as possible, postponing the future by revisiting the past.

[INSERT EX. 1 NEARBY]

One of this movement's most distinctive strategies – absent from the other minor-mode concerto, K. 466 in D minor, although present in two major-mode concertos, K. 459 in F and K. 467 in C – consists in the reuse of its opening material as a recurring *ideé fixe* (Ex. 1). James Hepokoski and Warren Darcy observe that such a motto typically functions in Mozart's concertos as a 'rotationally inert […] wild card' (2006, p. 482) that may be deployed at various junctures of the sonata structure without suggesting the reordering of material that would occur with an out-of-sequence reappearance of rotationally participatory material. Within this movement's large-scale exposition space, embracing the first and second ritornellos together with the solo exposition they frame, the opening material (R1:\P) returns a total of six times. After an immediate restatement at the onset of the transition, the *ideé fixe*

returns to flesh out an expanded passage of caesura-fill between the production of the i:HC medial caesura in bar 34 and the onset of S ten bars later (Ex. 2). This caesura-fill is highly unusual both in its length and in its use of an *ascending* sequence, fashioned out of the tail of the *ideé fixe* and heard first in the oboe and then in the flute, which seems to contradict the idea of caesura-fill as 'energy-loss' (Hepokoski and Darcy 2006, p. 40). P also returns upon the attainment of the R1:\EEC at bar 62 with a terrifyingly ominous *forte* and upper-string tremolo to form the elided first theme in C-space (R1:\C[1]).

[INSERT EX. 2 NEARBY]

The expectations for the dynamic interplay between soloist and orchestra, individual and collective, determine how the solo exposition may be interpreted. The solo entry may either repeat the opening material of the ritornello, which can be taken as a sign of agreement, participation or acquiescence, or it can begin with entirely new material, suggesting the independence of striking out alone, even resisting or contradicting the massed forces. It is hence entirely in conformity with these norms that the solo entry here eschews the threatening *ideé fixe* in favour of a new, plaintive theme, which Hepokoski and Darcy hear as a sign of 'hesitant reluctance' (p. 521) although the repeated notes might be heard to echo the reworking of the tail of the *ideé fixe* in the first ritornello's caesura-fill. The tutti entry of the *ideé fixe* elided with the i:PAC at bar 118 recalls both R1:\P and the P-based R1:\TR as it merges without cadencing into the transition with the soloist's re-entry at bar 124 (Ex. 3). Unlike the relatively unimpeded production of the R1:\EEC, in which R1:\S's single compound sentence culminates in the i:PAC at bar 63, the solo exposition's S-space is fraught with hesitations, rethinkings and diversions. The *ideé fixe* again returns, this time as one of a string of subordinate themes that serve to expand S-space and defer the S1:\EEC considerably: the III:PAC at bar 220 is immediately undermined by the sudden shift to the minor mode as the flute enters with a repetition of R1:\P material (Ex. 4). The *ideé fixe* also opens the elided R2 at bar 265, revisiting material from R1:\TR from bar 16 onwards.

[INSERT EXS 3 AND 4 NEARBY]

Beyond the exposition, in the half-rotational development, a tutti restatement of the motto at bar 302 provides the material for the ensuring sequential central action-zone. In a recapitulation with Type 2 features, the *ideé fixe* recurs at bar 362 with the orchestra re-

entering with material from S1 (bars 118 onwards); it then reappears with the return at bar 435 of the P-based caesura fill from bar 34 and at the onset of R4 at bar 473. Most striking is the final fifteen-bar coda, where the soloist, exceptionally retained throughout post-cadenza space, provides a rippling arpeggiated accompaniment to the orchestra's fading ghostlike vestiges of the *ideé fixe*.

The chief instrument of deferral in the solo exposition's S-space, however, is not the characteristic *ideé fixe*, but a formulaic cadential progression. In other words, there are two intersecting processes of repetition-as-deferral in the larger exposition: one entails the return of material that is strongly identifiable as belonging to this *particular* piece, while the other brings back the epitome of convention. This duality will assume greater significance later, when both repetition and S-space are figured as processes of actualisation. The process is also dual in the sense that it involves juxtaposing a series of returns of an opening with a set of repeated endings. With the solo exposition's privileging of the latter over the former, the effect is a large-scale shift from the repetition of particular openings towards the repeat of conventional endings as a means of EEC deferral. The repeated cadential formulas here fit into Hepokoski and Darcy's category of 'refrain cadences' (2006, pp. 158–9 and 492): these involve the repetition of a certain 'manner' of cadences by recalling the harmonic and melodic 'stamp' of an earlier PAC.

[INSERT EX. 5 NEARBY]

A series of such cadences recalls the original cadential formula from the end of the soloist's first subordinate theme at bars 155–156: a perfectly generic I–ii^{6}–V<6/4><5/3>–I progression with a melodic <^>5–<^>4–<^>3–<^>2–<^>1 descent (Ex. 5). The immediate orchestral restatement of this S1:\S^{1} begins to conclude with this same formula but is diverted by a deceptive progression at bars 164–165. Further repetitions of the refrain cadence occur at bars 219–220 in the orchestra at the end of S1:\S^{2} (just before the return of the *ideé fixe* in E<f> minor), at the end of that harmonic diversion (S^{3}) in bars 240–241 and at bars 248–249 at the end of S^{4}, which starts the display episode. The last recurrence comes in S^{5} as an evaded cadence in bars 256–257 just before a short expansion leading to the final trill-cadence, which – at least on Hepokoski and Darcy's reading – eventually produces the S1:\EEC at the last possible moment. The significant omissions and reorderings in the recapitulation's compressed S-area (Fig. 1), which Hepokoski and Darcy hear as 'a nightmarish irrationality' (p. 595), lead to a much extended interval before the final

recapturing of the formula (even though the largest gap between refrain cadences is still the one in the exposition between bars 164–165 and 219–220). Refrain cadences conclude S3:\S^2 (bars 409–410 = bars 219–220) and S3:\S^1 (bars 418–419 = bars 155–156) and its immediate orchestral restatement (bars 427–428 = bars 164–165), as well as, arguably, the reprise of R1:\S (bars 462–463 = bars 256–257). The recapitulation of K. 491, more than the exposition, departs in its scope from Hepokoski and Darcy's 'paradigmatic instance' of refrain cadences (the opening ritornello of the first movement of K. 413), where the reiterations come in rapid succession only a few bars apart (2006, pp. 158–9). Their analysis of K. 413 also sets a precedent, however, for stretching this concept over longer time spans in so far as they hear the very late repetition of the cadential figure at bars 171–172 within the concluding tutti of the solo exposition as a final recapture, extending S-space well beyond the trill cadence. I shall consider later how these expanded time spans affect our experience of these temporally separated cadences as a repetition of the same.

[INSERT FIG. 1 NEARBY]

This article is itself structured as a kind of ritornello, a series of refrain repetitions which revisit the same fundamental ideas from different angles. First, I show how the debate between William Caplin on one side and James Hepokoski and Warren Darcy on the other – which manifests itself not only in a dispute over the location of the EEC but also in the contested primacy of formal function over type – derives from two different constructions of temporality. I demonstrate, however, that this is not simply a question of temporal ordering or vantage point but ultimately comes down to two opposed ontologies of potentiality, to two different conceptions of the way in which possibility exists in music. Put differently, the contrasting temporal images that each theory yields derive from competing visions of how the modal categories of possibility, impossibility, contingency and necessity are experienced in music.

The second section revisits this theme of potentiality from a philosophical perspective, elaborating how its different modalities are mobilised in Gilles Deleuze and Félix Guattari's notion of the musical refrain. My interpretation of this concept follows Peter Hallward's reading of Deleuze (2006) as first and foremost a thinker of virtuality, whose thought is motivated by the fundamental equation of being and creation. This emphasis allows me to forge a connection between Deleuze and both Guillaume and recent Italian proponents of the modality of (im)potentiality. Although the virtual appears as a recurrent motif in recent

engagements with Deleuze within music studies (see, for example, Hulse and Nesbitt 2010), the musical ramifications of this distinctive modality as an experience of radical contingency, especially for our understanding of form, have not received any sustained or rigorous exploration. One temptation, given the sheer terminological proliferation in Deleuze and Guattari's oeuvre, has been to seek a music-theoretical application for individual philosophical concepts (say, 'speed' or 'rhizome') rather than to transform analytical practice according to the singular impulse which underpins each of the terminological creations. Even when the need to do so is recognised, the truly radical nature of the virtual, which demands that it be thought subtracted from all actuality, is often overlooked in proposals that analysis 'map the virtual in relation to the actual' (Hulse 2010, p. 37) or that 'we orient ourselves toward the potentialities yet unrealized' (Gallope 2010, p. 80).

The full significance of the constitution of the virtual for a theory of musical repetition comes to light only once Deleuze and Guattari's brief allusion to Gustave Guillaume's work on verb forms is unpacked (2004, p. 330). Little known outside French linguistic and philosophical circles, Guillaume's work is distinguished by a critique of his own Saussurian heritage, in which he reconceives of the relation of *langue* to *parole* as one of potential to actual. That his theories have been of interest to thinkers of virtuality and potentiality, including Deleuze and Giorgio Agamben (2005b, pp. 65–8), is therefore unsurprising; Deleuze has also embraced him as a thinker of difference (2004, p. 256).[2] Guillaume's theory of the temporality of the verb's construction provides a concrete path towards developing a more sophisticated model of the various images of time produced in the unfolding of musical form.

The final section returns to the exposition of the first movement of K. 491, now fusing this linguistic-philosophical theory of potentiality with the latest developments in musical *Formenlehre* to develop a more thorough and nuanced understanding of the refrain cadence's role in the experience of temporality and potentiality. The refrain cadence, with its repetition of a stock formula, is an especially fascinating music-theoretical concept because, more than other means of EEC deferral, its process of temporal reopening intersects with the dialogic negotiation of convention and idiosyncrasy. To demonstrate this, I deepen Michael Spitzer's notion of cadential liquidation via the nexus of Guillaumian and Deleuzian thought which I develop, explicitly recasting Spitzer's opposition of convention and thematic particularity as an actualisation of potentiality, much like Guillaume's reframing of Saussure. This leads not only to a reconfigured way of thinking about liquidation, but also to a reappraisal of what is fundamentally at stake in recent debates over musical form and a reconfiguration of the

different positions within this field. Ultimately, I argue that the issues presented by K. 491's refrain cadences call for a theory of musical form filtered through the prism of potentiality.

Time and Repetition; or, Which PAC?

My attention focuses on the larger exposition in so far as I am concerned with strategies of EEC deferral and their relation to processes of repetition – and with the representations of temporality that they construct. This focus also enables me to revisit the Caplin–versus–Hepokoski and Darcy debate: by default, which cadence in the new key produces the EEC? Whichever way one answers, the question demands an investigation of the various strategies by which S-space is expanded, such as those cited in the analysis of the first movement of K. 491 above. But whether one thinks of these as reopening what was done in the past or as postponing what will inevitably come in the future determines the representation of time that S-space produces and, with it, a stance towards necessity. It makes all the difference between Nietzschean greatness and the resentment to which *amor fati* is opposed.

This formal juncture is also ripe for a deconstructive reading of musical temporality, because different constructions of the temporal *present* are manifestations of different modalities of self-*presence*.[3] The EEC generates a play of identity (sameness) and difference in sonata form: unlike the corresponding moment in the recapitulation, where the tonic returns to itself, the EEC strives to make the other self-present. The rhyming cadence in the recapitulation strives to close over the margin of alterity, but this fundamental difference is registered structurally in the fact that neither the exposition nor the recapitulation can achieve closure in the now of the present. Caplin's music-theoretical distinction between cadential arrival and cadential function tries to account for this impossibility.[4] He distinguishes between a *point* at which the cadential dominant resolves to the tonic and a larger *time span* over which the various conditions for thematic closure (broadly construed as an assemblage of harmonic, melodic, rhythmic and textural properties) are fulfilled. Caplin then builds on this distinction in order to question whether high-level formal closure ought to be conceptualised as cadential, as is typically done in music theory. Taking the example of the subordinate theme, he argues that, while the points of arrival may coincide, the time span over which closure is attained is vastly different at the higher level of the exposition than at the level of the phrase: the process of attaining expositional closure takes much more time than the local cadential progression by which thematic closure is achieved.

This difference is what motivates Caplin's insistence that the EEC come only at the end of the subordinate theme or set of multiple themes. By contrast, Hepokoski and Darcy, who

follow William Rothstein's position on this point (2006, pp. 120–4), propose that, by default, 'the first satisfactory PAC that goes on to differing material' (p. 18) is to be considered the EEC. Caplin's dissent from this view rests upon his position that formal hierarchies are not necessarily uniform and continuous in the way that grouping or metrical hierarchies may be (2004, p. 65). Formal closure may take place in different ways at different levels – and not necessarily in the manner of the local cadential harmonic progression. This is why the first PAC cannot constitute the EEC: *no* local point of cadential arrival – *no PAC* – can close the whole exposition. Technically, the last PAC does not effect this closure either. Only the larger process that takes place over the span of the whole subordinate-theme group can achieve this higher-order closure.

What is of greatest interest here, though, is not that Caplin assigns the task of expositional closure to this larger time span, but that, in dissolving the point into a time span, he invokes a certain *temporality* of listening:

> I would suggest that the process of creating expositional closure occurs within the time-span of the entire subordinate theme, for even when that theme begins, *we can hear ahead* […] to the eventual end of the exposition and already experience that the exposition is *in the process of closing*. (2004, p. 81; emphasis added)

Surely the same could be said at the level of the theme? Even if the time spans and internal organisations of the stretches of music in question are sufficiently different as to warrant labelling them separately as cadential and subordinate-theme functions, the projective listening disposition is a distinctive feature of Caplin's conception of musical closure in general, irrespective of hierarchical level. It is this attention to time spans rather than points that enables Caplin to cast himself as a thinker of temporally inflected function, in opposition to Hepokoski and Darcy's preoccupation with static types.[5] Even if this opposition is undoubtedly overdrawn, Spitzer's more nuanced reconfiguration of this dualism has some explanatory power. Drawing upon the distinction that eighteenth-century theorist Heinrich Christian Koch makes between the rhetorical articulations with which the ends of phrases are marked and the structural grouping by which time spans are assembled together conceptually from the standpoint of the first *Taktteil* (Spitzer 2004, p. 248), he proposes that Hepokoski and Darcy are theorists of *punctuation*, while Caplin is an advocate of *rhythmic grouping* (Spitzer 2007, p. 154). Extrapolating from this opposition, Caplin would privilege beginnings over Hepokoski and Darcy's endings, first groups which tense away from their openings over second groups which relax towards their closes (and to which Hepokoski and Darcy devote more attention) and, finally, the diachrony of moment-to-moment rhythm over the synchronic

perspective afforded by punctuation's hierarchy of degrees of cadential closure. In other words, Caplin would privilege temporal unfolding over Hepokoski and Darcy's spatialisation.

The straightforward opposition of time and space, though, does not give sufficient credit to either side of the debate. In fact, Caplin's focus on function invites music theory to think of temporality not as uniform, but as inflected into different constructions of time. His own division of time into beginning, middle and end risks being too simplistic to account for the varied and dynamic ways in which music constructs and reconstructs images of time as it unfolds. At worst, this tripartite division is in danger of reinstating the spatialisation of which he accuses Hepokoski and Darcy, to the extent that it categorises temporal functions according to their position relative to other functions ('we can hear ahead'). Despite Caplin's plea that the subordinate-theme group be heard as 'in the process of closing', his theory tends all too readily towards representations of time as if they were already completed. By contrast, it is actually Hepokoski and Darcy's model of EEC deferral through PAC reopenings that presents a richer account of temporal representations in so far as it examines them in the process not only of their completion, but also of their unravelling and *in*completion.

Hepokoski and Darcy ask whether retrospectively reopening a PAC might be conceptualised as 'turning back the sonata clock' (2006, p. 157). Although they shy away from considering the full ramifications of this position, they note in passing that it would entail a dislocation between the time of the work's unfolding and the onslaught of external clock time. It is, of course, possible to slide this caesura in the direction of listening to create a separation between the time of music's unfolding and the representation of time produced by the ear – and, even further, to form a cut within listening itself between its completed representation and the time it takes to produce such a representation. Hepokoski and Darcy do not even begin to approach these issues, but their idea that musical time might be elastic and even reversible, when understood in its full force, is sufficiently provocative.

The difference between Caplin's waiting for the last PAC, on the one hand, and Hepokoski and Darcy's undoing of the first PAC, on the other, at times seems to coalesce in practice, but an analysis of how these issues play out in the first movement of K. 491 shows that the distinction is worth maintaining. By waiting for the last PAC at the end of the subordinate-theme group, the EEC can only be experienced as such in hindsight. In K. 491 this would mean waiting through all the various subordinate themes, expansions and diversions, wondering with each refrain cadence: 'might this be it?' Even with the second trill-cadence at bars 263–265, there cannot be a decision on the EEC until there is certainty that the second orchestral ritornello is underway; given that R1:\P appears as a rotationally

inert *ideé fixe* throughout the movement, this may not immediately be the case, even if it is very likely. Only then can it be said: 'that was it!' The interesting aspect of this model is that it does not permit the experience of closure *as it is being completed*, but only as something that *will be* completed or *has been* completed. There is a disconcerting voiding of the 'now': the moment at which a possibility of completion is actualised is rendered inaccessible to experience. The logical conclusion of Caplin's commitment to the last PAC has an unexpectedly deconstructive twist: there can be no experience of a present, but only of a minimal out-of-jointedness.

It would be wrong to imagine, however, that Caplin's subordinate-theme group is an undifferentiated span of waiting. Even if the moment of crystallisation is 'missed', Caplin's model of how this process of closure takes shape is finely granulated. The sense of movement towards closure is indicated not simply through the presence of cadences or their relative strength, but through a whole nexus of parameters which locates a theme on a continuum between tight-knit and loose. Tight-knit themes are characterised by stable tonality and harmonic function, strong cadential closure and symmetrical groupings, while looser constructions tend to exhibit more modulation, functionally unstable harmonies, asymmetrical groupings, functional ambiguity and motivic diversity. Thematic constructions also exhibit a progression from tight-knit to loose, moving from the most conventional and functionally efficient (first periods, then sentences followed by hybrids) to idiosyncratic designs with more redundancies in the form of repetitions, expansions, extensions and interpolations. Although Caplin concedes that it may not be possible in some situations to characterise each of the group's constitutive themes as more or less loose, a theme's location on the spectrum from tight-knit to loose may be considered roughly indicative of the degree of expositional closure attained; specifically, the first is often the most tight-knit (1998, p. 121). As counter-intuitive as it may at first seem, looser constructions are further along a progression towards higher-level closure because their relative instability provides a greater motivation for closure and hence makes it seem more imminent.

The solo exposition's subordinate-theme group in K. 491 provides examples of a number of the typical loosening techniques, the effect of which is to contour the approach towards expositional closure.[6] The first theme (Ex. 6) in the piano (bars 148–156) is notably tight-knit: it proceeds according to a fairly straightforward sentence construction with the basic idea in bars 148–149, culminating in a III:PAC after an internal expansion of the continuation function through the repetition in bars 153–154. By comparison, the immediate orchestral restatement is loosened by a deceptive cadence at bar 165 and then gives way to a

significant expansion, beginning with a series of continuation phrases characterised by model-sequence technique. The first descending-fifths progression, which undergoes a change in root with every bar, switches to three bars of descending thirds before it resumes with the harmonic rhythm expanded to one change every four bars with repetitions of the melodic figure; an accelerated ascending-second sequence sets up a complete perfect authentic cadence, which wears its trill as a badge of closure, only for the group to open out onto another theme. As if to play along by suggesting the onset of a closing zone, the theme at bar 201 is more harmonically stable; a half cadence at bars 209–210, followed by a repetition of the first half culminating in the refrain cadence PAC at bars 219–220, suggests an overall periodic structure.

[INSERT EX. 6 NEARBY]

The sudden modal shift at bar 221, however, presents an even more dramatic loosening strategy and precipitates increasing harmonic instability with a chromatic descending bass line supporting diminished-seventh harmonies leading to the repeat of the refrain cadence. This point of greatest loosening heightens the sense of imminent expositional closure: it gives way to a display episode which, in keeping with the virtuosic habitus of the passage, is loosely constructed; the theme is first extended through an evaded cadence in bars 256–257 before it produces an expanded cadential progression (another loosening device), complete with the movement's second trill-cadence, in bars 257–265 (Ex. 7). Caplin's perspective therefore allows one to see how expositional closure is attained not at a single point of arrival, but through a process of completion which unfolds through the ordering and combination of various loosening techniques. The course taken in bringing the exposition to its end is not a uniform approach to the cadence, but a trajectory contoured by the relative intensity and pacing of its loosening strategies.

[INSERT EX. 7 NEARBY]

If Caplin's approach views closure as gradually achieved through the loosening of thematic construction, Hepokoski and Darcy's model, by contrast, foregrounds the way in which closure, already achieved through a local cadential progression, may subsequently be undone. From their perspective, a decision in favour of expositional closure comes immediately with the III:PAC in bars 155–156 at the end of the soloist's first compound

sentence in the new key: 'this is it!' This assertion, though, will be contested, only to be replaced by that of another potential EEC, and this process of overturning will be repeated time and time again over the course of the remainder of the solo exposition. In many cases it is repetition that is instrumental in undoing this sense of closure, and, in contrast to the idea (derided by Caplin) that PACs in C-space provide further affirmation of closure, there are various kinds of repetition which tend instead to elicit uncertainty. The immediate orchestral expanded repetition of S1:\S[1] is a classic example of a PAC reopening which has the retroactive effect of deactivating the higher-level closure of the first PAC. In other words, it is a matter of downgrading an earlier PAC's structural significance, whereas Caplin sees the cumulative effect of loosening strategies as effectively upgrading the structural force of a future PAC because of the increase in cadential imminence. Hepokoski and Darcy instead view the various sequential expansions, together with the deceptive and evaded cadences, as having a primarily backwards-looking effect.

It is the refrain cadences discussed earlier (a strategy which Caplin does not discuss) that seem to be most instrumental in undoing the closure effects of previous PACs: in recapturing the ending of a previous S module, they retrospectively weaken the capacity of that cadential stamp to effect closure in so far as it is shown to have been inadequate. With this 'backing-up […] and recovery' (Hepokoski and Darcy 2006, p. 492), there is also the sense of a persistent attachment to the cadential figure, which, following the requirement that the EEC move on the differing material, must be 'relinquished' (p. 158) before it is possible to move onward into C-space.

The analytical observations generated by both systems tend in practice to converge, but it is important to stress that a vital gap prevents their coinciding. Whereas for Caplin what *might be* resolves into what *was*, for Hepokoski and Darcy what *is* dissolves into what *might have been*. The choice of a concerto as the main analytical example for discussing these issues stems from its melding of ritornello and sonata procedures. By definition, ritornello manifests a paratactic, chainlike construction, in contrast to the synchronic conception produced by sonata form. Like variation, it proceeds through a repetition of likenesses. Furthermore, this is arguably a better translation of Nietzsche's 'ewige Wiederkehr des Gleichen': *gleich* may be decomposed into the prefix *ge-*, signifying being together with (commonly thought to equate to the Latin *cum*), and *-leich*, deriving from the proto-Germanic *lig*, which is equivalent to the proto-Indo-European *līk*, whence the English 'likeness'. This suggests that what returns in Nietzsche's experiment is actually what is like, but nonetheless not quite the same. In line with what Catherine Malabou (2010, p. 21) has described as an 'interpretative coup' whereby

twentieth-century French thought has turned Nietzsche into 'the first and foremost thinker of difference', one might say that the only identical thing that returns is the differential margin that separates one likeness and the next.

The refrain cadences may be understood in a similar way: not as the increasing imminence of fate, but as Deleuze's 'repetition of difference' (1983, p. 46). This analysis may be furthered by considering Jacques Derrida's reading of the eternal return as the deconstruction of auto-affection: the self turns back on itself but in doing so returns to itself as other-than-itself. The eternal return may be likened to the anniversary: 'the moment when the year turns back on itself, forms a ring or annulus with itself, *annuls itself and begins anew*' (1988, p. 11; emphasis in original). This is the effect of the refrain cadence: it returns to itself to annul its closure effect and begin again.

The Time of the Refrain

Let us then begin again – not with Mozart or sonata theory, not with the refrain cadence, but with Deleuze's refrain. The refrain, Deleuze and Guattari assert, is 'properly musical content, the block of content proper to music' (2004, p. 330), but music exists in an antagonistic relation to its proper material. The refrain is not the 'origin' of music, but 'a means of preventing music, warding it off, or forgoing it' (p. 331). If the refrain is an obstacle to music, it is equally impossible that music exist without the refrain. The refrain is music's condition of possibility: 'music exists because the refrain exists also, because music takes up the refrain […] it forms a block with it in order to take it somewhere else' (p. 331). It is this sense of at once taking up and taking elsewhere that Hepokoski and Darcy – intuitively, perhaps, and without awareness of its full Deleuzian ramifications – capture in their notion of the refrain cadence as the reopening of closure. Deleuze and Guattari expressly mention Mozart's variation procedure when they discuss how music operates on the refrain: 'Mozart's refrains. A theme in C, followed by twelve variations; not only is each note of the theme doubled, but the theme is doubled internally. Music submits the refrain to this very special treatment of the diagonal or transversal, it uproots the refrain from its territoriality' (p. 331).[7] One can only imagine what Deleuze and Guattari might have said had they appreciated, beyond techniques of rhythmic acceleration and formal expansion, the full sophistication of Mozart's variation procedures. Their description of music does, however, capture the two-pronged impetus of variation: its production of difference in the repetition of the same. Deleuze and Guattari suggest moreover that music is traversed by the double movement: '[w]hereas the refrain is essentially territorial, territorializing, or reterritorializing', music is 'a creative, active

operation that consists in deterritorializing the refrain' (p. 331). The territorialisation/deterritorialisation pair is a form of articulating the fundamental opposition of identity to difference and one which captures nicely the issues of spatialisation in representations of musical temporality. If the refrain organises heterogeneous bodies into the consistent unity of assemblages, music's task, according to Deleuze and Guattari, consists in a loosening or unravelling – an escape from the organising impulse of the refrain towards the instability of the outside. Music is thus defined as something which always already moves outside of its own propriety (the refrain) and differs from itself.

This differentiation, however, is not to be collapsed into a 'negation' of the refrain but should be thought as 'essentially positive and creative' (Deleuze 1991, p. 103). Music in its deterritorialising impulse is a manifestation of the inexhaustible creativity that all being is. Deleuze's reconfiguration of ontology entails a shift in the conception of being from creature to creatings, that is, a move away from the actual concrete individuality in which being is realised towards the bottomless well of possible virtual creatings that may or may not be actualised. At the risk of oversimplification, actual creatures are static, fixed and determined. Against actuality Deleuze values a philosophical gesture of counter-actualisation and indetermination which effects a line of flight (music's diagonal) towards a purely virtual creating. To deterritorialise the refrain means to return it from actual to virtual: music's task, against the refrain's relentless drive towards actualisation, is to restore the refrain to its originary condition of possibility. Music converts what is into what might or might not be.

Deleuze and Guattari also make, beyond this claim for music's repotentialising capacity, a seemingly enigmatic assertion about the refrain: 'The refrain fabricates time [*du temps*]. The refrain is the "implied tense" [*temps impliqué*] discussed by the linguist Gustave Guillaume […]. Here, Time is not an a priori form; rather the refrain […] fabricates different times' (2004, pp. 384–5).

Over the course of the passage between the repetitions of this refrain ('the refrain fabricates time […] the refrain […] fabricates different times'), music's deterritorialisation is entrusted to the listener: 'a state of force on the part of the listener' through which the refrain 'turns back on itself, opens onto itself, revealing until then unheard-of potentialities, entering into other connections, setting [itself] adrift in the direction of other assemblages' (Deleuze and Guattari 2004, p. 349). And yet what kind of listening is this that restores music to its potentiality? Perhaps it is the kind that allows one to 'turn back the sonata clock' and permits a cadence to turn back on itself and restore to itself the potentiality to move off in other directions and form new S-modules.

The reference to Guillaume is elliptical, and yet, upon careful investigation, it reveals something further about the representations of time produced by such a listening. That is, it enables one to define more closely the gap that separates the two images of time produced by Caplin's theory on the one hand and Hepokoski and Darcy's on the other – and, moreover, to propose a refinement of these theories. Why Guillaume's work should hold such a fascination for Deleuze and Guattari becomes evident when once one realises that the concept of *temps impliqué* is part of a larger project attempting to think potentiality (virtuality) within language. Guillaume inherits from Saussurian linguistics a conception of language as a twofold entity made up of actual observable utterances (*parole*) and the broader dimension of language out of which speech is actualised (*langue*). What is distinctive about Guillaume's theory is the way in which it seeks to realise the implications of Saussure's insights by rethinking this second dimension of language in its potentiality. Unlike the post-Saussurian conception of *langue* as an inventory of possible, but as yet unspoken, utterances, Guillaume thinks of language-as-potentiality as a system which provides the potential for carrying out certain processes that enable us to form words. This reconfigured *langue* (typically translated as 'tongue' to show the distance from Saussure) (Hirtle 2007, p. 8) consists not in an abstract norm, but in a potential in the mind of a speaker, specifically in a grammatical system whose potentialities are actualised through mental operations so as to form actual utterances.

The concept of *temps impliqué* assumes its place within this conception of language-as-potentiality in one of Guillaume's most significant projects: a theory of the formation of the verb (1929). Guillaume understands the system of the verb as a means of producing a representation of time. A series of mental operations, conceived of as subsystems of the verb, actualises the potential that exists in tongue in order to form this 'time image' – a process that Guillaume calls 'chronogenesis' (p. 10). Chronogenesis decomposes into three stages, each of which produces a distinct representation of time or 'chronothesis'. It is only with the third and most complete time image that the process of completing the representation is complete. To this extent, Guillaume's model of chronogenesis may provide a useful tool for thinking about the way in which closure is produced as a process across the entire subordinate-theme group. It is especially useful in so far as it suggests a way of characterising the relative consistency of each of the stages in this process and thus offers a model for mapping Caplin's distinction between tight-knit and loose onto the process by which closure is brought to completion. In 1929, when Guillaume published his breakthrough volume *Temps et verbe*, his theory was unusual in that it sought to integrate fully the systems of mood, aspect and tense into his conception of the verb. This yields one of the most fascinating aspects of his thought for a

theory of musical temporality: the correspondences Guillaume draws between the stages of the chronogenesis and the different subsystems of aspect, mood and tense.

Guillaume's theory performs two operations on this triad of subsystems. Thinking of the three subsystems as points on the vertical axis, the first, relatively straightforward, operation consists in charting the succession of verbal moods along the horizontal temporal axis to reflect the process of completion of the time image. The second operation involves folding the three subsystems back within the horizon of mood so as to correlate each subsystem with each of the moods forming the chronogenesis. Chronogenesis thus progresses along the horizontal axis through three different moods, so that the quasi-nominal mood, comprised of infinitives and participles, forms the first chronothesis and the subjunctive forms the second representation; only with the indicative, at the end, is a complete time image constructed. The progression from quasi-nominal to indicative gives rise to three different ways of representing time. This aspect of Guillaume's theory could usefully model the way in which listening produces different temporal representations over the course of the second group's unfolding.

Mood, however, produces only one component of the time image, representing what linguists call 'universe time', that is, the infinite horizon of time in which events take place. It is, as it were, time as a container or a priori construction in which event time takes place, and thus approximates the naive conception of form rejected by modern music theory, in no small part because it leaves little room for interaction with the listener. Mood nonetheless provides an essential basis for more sophisticated representations of time. Each mood presents a different representation of universe time (Fig. 2). Working backwards from the most readily grasped, the indicative mood (e.g. 'he goes', 'we went') presents universe time as an infinite stretch divided by the present, conceived as a durationless limit between past and non-past which coincides with the act of speech. As in the indicative, forms of the verb in the subjunctive mood (e.g. 'were I going', 'lest she go') are capable of predicating their event of a subject; in the subjunctive, however, the verb is not limited to locating the event with reference to the present but can situate it anywhere within the whole horizon of time. Moreover, because the event cannot be situated at a point in the past or the non-past as a reality, it is represented as a possibility; but, in so far as the subject is able to appropriate and bring this possibility into reality at some future moment, the subjunctive likewise gives rise to a future-oriented conception of universe time. Finally, the quasi-nominal mood comprises the non-finite forms: infinitives (e.g. 'to go', 'to have been going') and participles (e.g. 'going', 'gone'). It also produces an undivided stretch of time but, unlike the subjunctive, quasi-

nominal forms cannot fall incident to a subject without the aid of an auxiliary (for example, by adding 'have' to a participle in English). This leads to a past-oriented representation of time, a conception of time as something that happens to us and passes us by rather than as something that can be seized.

[INSERT FIG. 2 NEARBY]

The other two subsystems of the verb flesh out the representation of time within the horizon determined by mood. If mood concerns the time in which event time is contained, the other two subsystems concern the stretch of time during which the event itself takes place: they produce the time which is contained within universe time. Guillaume discerns two distinct components of event time, which refer respectively to its external and internal dimensions. First, the distinction between different verbal tenses takes place within the outward-oriented dimension of *temps expliqué*. In other words, a difference in tense is the product of a difference in event time's relation to the time outside. Tense thus serves to locate event time within universe time. By contrast, Guillaume uses the term *temps impliqué* (recall that this was Deleuze and Guattari's definition of the refrain) to describe the relation of event time to itself. The concept of *temps impliqué* is thus an index of time's internal consistency. This thinking gives clarity to the concept of aspect by proposing that the degree to which an event is actualised be thought of as its relation to its own unfolding. Guillaume's concept of *temps impliqué* thereby thinks the actualisation of a potentiality as a form of self-relation, as a progression through degrees of self-identity. The concept of *temps impliqué* thus offers one way of thinking of the ways in which expositional and later recapitulatory closure is produced as self-presence over course of the second group.

From this account it is possible to comprehend why Guillaume's *temps impliqué* is a model for Deleuze and Guattari's conception of the refrain as (re)territorialisation. The refrain is a process of actualisation or, perhaps better yet, a measure or index of its own degree of actualisation. To fully understand what is at stake in the notion of *temps impliqué*, however, it will be necessary to bring into play Guillaume's secondary manoeuvre, whereby he maps the different subsystems of the verb onto the different moods. While Guillaume claims that aspect is a function of *temps impliqué*, he also argues that this differentiation of aspect occurs from within the perspective of the quasi-nominal mood. Consider how tense (*temps expliqué*) as such is unable to emerge as a separate category within the horizon of the quasi-nominal mood. At this point, only aspect (*temps impliqué*) can be formed, because event time cannot have an

external referent in universe time. Verbal tenses in the quasi-nominal mood represent not the position of event time within universe time, but the different degrees of actualisation of the event. The infinitive, as in 'there's a long time to go', represents the yet-to-be-actualised potential, the present participle, 'going', is caught in the midst of the process of actualising, and the past participle indicates the already actualised.

The correspondence Guillaume draws between each subsystem and mood means that, as one goes through the process of chronogenesis, one travels the path of actualisation. Working backwards in a line of flight towards the purely virtual, tense fixes event time in relation to the present, so that in the indicative mood it is fully actualised. Before this, mood provides the representation of time in which the event may take place at some unspecified point. This kind of potentiality, however, is what Deleuze dismisses as the merely possible as opposed to the virtual. As Hallward explains in his astute commentary on Deleuze's concept of the virtual,

> to realise a possibility is to bring something efficiently pre-existent into existence […] . The realisation of a possibility will resemble the pre-existent possibility itself; realisation of the possible is thus simply an aspect of actuality. Virtual differentiation, by contrast, *creates* the very thing that it actualises. (2006, pp. 36–7)

Guillaume's conception of a subsystem which needs to be actualised *prior* to the subjunctive mood is an attempt to think precisely such a virtual differentiation. Before the first stage of chronogenesis is complete, there simply is no concrete possibility which could be realised. Up until that point, the event does not exist as an actual potentiality, but only as a potential potentiality whose form is yet to be determined. Rather, it is the transformation in *temps impliqué* still within the framework of the quasi-nominal mood which creates a genuine potentiality in the first place, rather than a mere possibility-in-waiting. It is only because the event also has its own *temps impliqué* and can thereby mark the extent of its own actualisation, that it becomes possible to speak of a truly virtual differentiation and of the coming into existence of a potentiality as such. Without the first stage of chronogenesis, there would simply be a progression from an actual potentiality (that is, a fully formed, consistent possibility-in-waiting) to an actual actualisation. There would be merely an actualisation of the actual. It is only because *temps impliqué* allows one to discern, before any actuality, a truly potential potentiality (that is, a contingency which may or may not pass into actuality) that there is an actualisation of the virtual.

The Actualisation of Cadential Closure

What, then, would a sonata theory reconfigured along the lines of Guillaume's notion of chronogenesis look like? One model that moves in this direction is the alternative conception of the sonata exposition proposed by Spitzer (2008, pp. 189–229). His theory has the advantage of partially reconciling the opposition between Caplin's rhythmic model and Hepokoski and Darcy's orientation towards endings: both the first PAC and the last of the second group may be considered as significant structural goals, with the qualification that they are the goals of two different processes. Spitzer's model of the exposition is thus marked by a double traversal. Drawing upon Caplin's Schoenbergian analysis of sentence construction, Spitzer proposes hearing two processes of 'liquidation' that intersect at the first theme of the second group. The first PAC becomes the goal of a large-scale 'thematic liquidation' which runs over from the transition and whose task is to 'realise' the material of the first group. The last PAC, by comparison, is reconfigured as the goal of a second process of 'cadential liquidation', in which the final foreground PAC gradually emerges out of more middleground tonal models built from the same grammatical functions, by analogy with the way in which a sentential liquidation realises thematic material. The first, thematic liquidation is an actualisation in the sense that it realises a potential which is latent in the opening material, but which remains at that point transparent in so far as it is integrated seamlessly into the syntax. The actualisation takes place through a 'functional flip', in which formulaic convention is realised as a particular motivic detail, thereby rendering it perceptible as such (2008, p. 194). To this extent, thematic liquidation is the actualisation of something that may or may not be heard as such.

The second, cadential liquidation takes up the fruits of this thematic liquidation to initiate a new process driven by variational, paratactic logic, rather than that of thematic development.[8] In this way Spitzer fully acknowledges the pattern of repetition characteristic of Mozart's second groups. However, rather than this repetition's forming a hierarchy of cadential closure, it allows the final foreground cadence to bubble up and be distilled out of larger-scale middleground progressions. In this way 'the dispute about whether or not the second group is an expanded cadence […] admits of a new solution. The functional burden of the group *begins* as thematic but "modulates" to the cadential' (2008, p. 198). This alternative model also overcomes the difficulty of how to construe postcadential V–I progressions: just as the transition's process of thematic liquidation runs on into the first subordinate theme, the second group's cadential liquidation overruns the EEC into C-space. The idea of cadential liquidation also responds to Caplin's concerns about reducing expositional closure to a point of arrival, not simply by expanding the time span under consideration, but also by thinking of

the process of expositional closure according to a depth model whereby there is an 'emergence' of, rather than a kinetic approach towards, the cadence.

Cadential liquidation is thus also figured as a process of actualisation in which the latent possibilities of the first subordinate theme are converted into a local foreground cadential progression. There is, I suggest, a tension here, not simply in Mozart's music but in Spitzer's theoretical model. Spitzer thinks of liquidation as a realisation of the particular (motivic detail) out of the universal (conventional formula). Even if the local cadence emerges from middleground progressions, on a larger view he hears the final formulaic cadential progression as realising an inconspicuous motivic detail, say an accompaniment figure, in the first subordinate theme. This process of cadential liquidation thus involves a 'functional flip' from the particularity of the first subordinate theme to the generic conventionality of the local cadential progression that marks the attainment of the EEC. Cadential liquidation thus cuts across the process of thematic actualisation, restoring S^1 to its generic potentiality, while also precluding any straightforward equation of convention with potentiality and thematic particularity with actuality (see Spitzer 2008, pp. 192–3). Or, more precisely, because liquidation can move in two directions (away from and towards convention), this suggests that actualisation is not so much the exhaustion of potentiality as its realisation and fulfilment – what might be called the actualisation of potentiality itself.

In K. 491 the way in which the second group takes a second glance at the first, recasting what was thematic as cadential, manifests itself specifically in the relation between the *ideé fixe* and the refrain cadence. All but one of the S-modules in the solo exposition (S^3, which revisits the *ideé fixe*, plus the multimodular expansion at the end of S^1) project <^>5 with increasing prominence which then falls into a highly conventional <^>5–<^>4–<^>3–<^>2–<^>1 cadential descent at the end of the module or phrase. For instance, in S^1 (Ex. 6) a descent from <^>5 is implicit in both the upper voice of the left-hand accompaniment and the melodic insistence on B<f> from bar 147, which then realises itself with the first occurrence of the refrain cadence at bars 155–156.[9] The immediate orchestral restatement repeats this middleground projection, although the inner dominant pedal resurfaces only briefly in the second oboe (bars 158–160). In the antecedent phrase of S^2, <^>5 sits atop the texture (first in the flutes, which are then joined by the first violins at bar 205) and in the middle (shared between the violas and second violins), while the melody is built from an initial stepwise ascent from <^>3 to <^>5 (Ex. 8), which is then repeated locally (bars 208–209 and, in the consequent phrase, bars 218–219) immediately before the familiar linear descent at each of the cadences. (Arguably the melodic ascent begins from <^>1 with the prefix to S^2 in bar 200,

which is picked up in bars 206–209 and 216–219, but the first two steps are omitted in the consequent phrase, and comparison with other S-modules suggests a precedent for beginning on <^>3.) The display episode begins at bar 241 (Ex. 9) with <^>5 in the piano's inner voice, which then bubbles up to the surface (the violins in bars 245–247 and then, moving on to S^5, the flutes, and picked out in the top of the right hand of the piano). In bar 241 the piano begins a middleground descent from <^>5, getting stuck on a <^>3–<^>4 alternation before launching in bars 247^3–249 into a full-blown Cudworth cadence, with its distinctive descent from <^>8 (see Gjerdingen 2007, pp. 146–9), while the violins take over the familiar descent from <^>5 to the tonic, which the piano then assumes in the evaded cadence in S^5 (bars 255–257).

[INSERT EXS 8 AND 9 NEARBY]

S^3, with its turn to E<f> minor, functions like a key to a puzzle, revealing by virtue of its juxtaposition the origin of the refrain cadence in the *ideé fixe* (much as the beginning of the development in turn reveals the affinity between R1:\P and S1:\P). After an initial arpeggiation through <^>1–<^>3–<^>6 (see again Ex. 1), this motto-theme is structured by a chromatic linear descent which dissolves into the cadential descent to the tonic: just as P reaches <^>2 in bar 8, the first oboe (which is a frequent vehicle for these linear progressions) brings the stepwise descent from <^>6 into the foreground and forges its connection to the cadential formula. When the *ideé fixe* returns from bar 220, its linear descent now sounds like a minor-mode echo of the refrain-cadence descent which immediately precedes it: careful inspection shows that the upper-neighbour inflection, though absent here, had been present in S^1 (bars 153–154 in the piano melody and bars 162–163 in the first clarinet and bassoon) and will return on the downbeat of the soloist's Cudworth cadence and in the orchestral voicing of S^5's evaded cadence. In S^3 the cadential descent from <^>5 comes out of a longer chromatic descent which spans the entire module. This descent emanates from the upper voice of the *ideé fixe*'s compound melody and emerges at the top of the texture to form an extended counterpoint to its structurally anchoring lower-voice chromatic descent, which moves into an inner voice as it continues throughout S^3, hesitating on an alternative between F<s> and E<s> during the enharmonically respelled prolongation of iii/III before resuming its descent from bar 234. The piano's middleground descent in S^4 is then heard to come directly out of the cadence at the end of S^3, which, in a slight modification of its earlier incarnations and a direct reference to the cadence in bars 11–12, briefly redoubles the movement from <^>4 to <^>3

(replicated by the piano in bars 244–245 and 246–247). This version of the cadence also establishes a connection with R1:\S, which is omitted from the solo exposition but substitutes for S^3, S^4 and the first part of S^5 in the recapitulation – that is, for each of the modules whose closing cadential formula includes the <^>6 prominent in the *ideé fixe*.

Over the course of this process of transforming the *ideé fixe* into the refrain cadence, the melodic descent itself transmutes from the thematic to the cadential, from particular to convention. What was the backbone and part of the distinctive identity of the *ideé fixe* transmutes into a common or garden (<^>6–)<^>5–<^>4–<^>3–<^>2–<^>1 cadential descent. In one sense, this is a projection of the liquidation process that takes place within R1:\P itself, but there is a decisive difference. In Caplin's Schoenbergian analysis of the classic sentence which opens the first movement of Beethoven's Piano Sonata Op. 2 No. 1, the arpeggiation (1998, p. 11), which is initially a distinctive component of this particular basic idea, is whittled down to acciaccaturas and then into the spread chord at the head of the conventional cadential formula which descends, as in K. 491, from <^>5. As Caplin observes, in itself the cadence is perfectly conventional, but in context it 'grows naturally out of the preceding measures' (p. 11). Spitzer accordingly argues that 'Beethoven perpetuates the illusion that the end of the phrase is both conventional *and* thematic' (p. 192), which is thoroughly in keeping with the Schoenbergian dual notion of liquidation as at once 'eliminating' and 'condensing' the characteristic content (1967, p. 59).

What appears in this emergence of convention out of thematic material is a generic potentiality for conventional patterns to be actualised as particular thematic details. This thematic liquidation thus marks the passage between Guillaume's second and third time images, between mood and tense, between an actual possibility and its realisation in particular use. Guillaume's model thinks a process of actualisation *prior* to this which takes place within *temps impliqué* (aspect) or within potentiality itself. Spitzer's position is that 'the realisation of this cadential "prototype" concludes a pathway from an abstract to a concrete category' (2008, p. 209). If thematic liquidation is the realisation of conventional schemata embedded in P as particular thematic detail in S^1, cadential liquidation is likewise a movement from generic to particular, which, I suggest, takes place not in the interval between convention and theme, but within convention itself. Spitzer sees the second group in terms of a centre-periphery schema (pp. 224–5): prototypes are categories which approximate most closely our engagement with concrete reality, as opposed to higher- or lower-level categories which are either too general or too specific. Cadential liquidation thus spans a spectrum of genericity in which the prototypical cadential descent represents an optimum recognisability as cadential

closure coming into focus between a middleground harmonic progression that is too generic to be heard as a cadence and a motivic detail that is insufficiently generic and has already passed over into thematic particularity. The second subject forms the hinge in a two-dimensional process of actualisation, much like Guillaume's mood: in relation to the primary theme, it is an actualisation of convention's generic potentiality, while, in relation to the cadential theme(s), it is itself an even more generic potentiality for conventionality to realise itself as actual conventions, as prototypes. *If thematic liquidation is the actualisation of generic convention as particularity, cadential liquidation is something like the actualisation of convention itself.*

This idea that there is not simply a realisation of convention-as-potential as actual instances of thematic particularity, but also, before this, a movement from potential to actual within convention itself addresses a possible objection that the refrain cadences are simply too generic to be heard as repetitions of an earlier moment within that particular piece because they represent a basic default option in triple metre. This question is important because the capacity to reopen the EEC hinges on going back in time to an earlier moment to 'recapture' it (Hepokoski and Darcy 2006, p. 150). A comparison of the first movements of K. 413 and K. 491 illustrates this difficulty: both make use for their refrain cadences of a typical triple-metre formula that Robert Gjerdingen identifies as a generic galant cadence (1988, pp. 34–5). It is worth noting the degree of abstraction that Hepokoski and Darcy themselves tolerate. They include a cadence in K. 413 (bars 44–45) that lacks the first beat, with its distinctive dotted rhythm common to the other repetitions, and retains only a very generic melodic descent from <^>3 over a V–I progression, with the ubiquitous octave leap in the bass (2006, p. 158). But they exclude an instance in the first movement of K. 466 (bars 42–44) where the same bassline but different melodic construction and harmonic rhythm (cf. bars 51–53 and 56–58) is insufficient (p. 492). Although they make no reference to Gjerdingen's earlier work in schema theory, the line that Hepokoski and Darcy draw here is in keeping with his idea that galant schemata – cadential clausulae in particular – are a 'co-articulation' or 'pas de deux of bass and melody' (2006, p. 141). But, while conceding that what is needed to constitute a refrain is open to debate, Hepokoski and Darcy tend to think in terms of similarity between repetitions within a movement rather than the degree of abstraction across all instances, and hence the degree of external similarity with other pieces (p. 492).

Can a schema, then, constitute a refrain and specifically in the Deleuzian sense I rely on here? Deleuze and Guattari think of the refrain as territorialising in so far as it produces a sense of 'home' (2004, p. 312). At first blush, this suggests that the refrain points to what is

proper, and hence we might expect it to involve the repetition of a particularly distinctive musical fragment by which a piece might be identified. Their primary examples of birdsong (p. 312) and of Swann's appropriation of Vinteuil's little phrase in *À la recherché du temps perdu* (p. 319) might advocate this reading. With their rather dilettantish musical interests, Deleuze and Guattari tend to cite examples which reference birdsong (the end of *Das Lied von der Erde*) or which expressly recreate worldly refrains (*Wozzeck*) (p. 339). Only two examples have music-theoretical ramifications that impact on the analysis here: Schumann's Cello Concerto, where the soloist's emancipation from the orchestra is at stake (p. 297), and, more significant, the Mozart theme, mentioned earlier, which is subject to variation (p. 331). This last suggests that the refrain operates at a certain level of abstraction subtracted from the particular surface actuality, operating more like a generic template capable of being repeated – actualised – in a series of particular uses or concrete instances. This notion is completely in keeping with Hepokoski and Darcy's use of the term 'refrain cadence' to refer to the repetition of a 'stock' formula (2006, p. 158) or 'stamp' (p. 492). With greater rigour, Spitzer's prototype and Gjerdingen's schema identify an optimal point of recognisability on a spectrum between particular and generic, poised between a very specific nexus of voice-leading, rhythmic and textural components too detailed to recall and a general principle of tonality that still lacks the functional specificity to reflect the level at which listeners engage with music. Cadential liquidation can then be thought of as the actualisation of a specific schema out of the virtual reservoir of tonal resources.

Understanding cadential liquidation in this way slides the division between convention and particular in the direction of convention, making a caesura within convention itself. Just as the opposition of particular to convention maps onto that of actual to virtual, cadential liquidation inscribes a separation between actual convention and its possibility – that is, between actual convention realised as prototype and potential convention which may or may not be realised as prototype. To think the refrain as *temps impliqué* is precisely to perform this operation: to slide the refrain in the direction of the virtual so as to deterritorialise it. The notion of *temps impliqué* inscribes the caesura between potentiality and actuality within potentiality itself between potentiality and its own possibility.

In a provocative reading of a problematic mention of potentiality (*dunamis*) in the Aristotelian corpus, Agamben argues that actuality is not the necessary end of potentiality, because impotentiality belongs to every potentiality (2005a, pp. 284–5). Aristotle states that 'a thing is said to be potential [*dunaton*] if, when the act of which it is said to be potential is realized, there will be nothing impotential [*adunaton*]' (1933, s. 1047a, pp. 24–6). While this

sentence is usually read as the tautology ‘what is possible is what is not impossible’, Agamben insists that *adunaton* be read not as a modal negation, whereby ‘can be’ inverts into ‘cannot be’, but as a privative negation: the potential not to (‘can not be’). All genuine potentiality is impotentiality in so far as it can *not* be at the same time it can be; were it not to retain this contingency, potentiality would automatically turn into actuality at some point.

The Deleuzian refrain (which, we may recall, is *temps impliqué*) thus distinguishes between a possible possibility which may or may not take place and a fully formed possibility which is simply awaiting realisation. It is this opposition between a possibility-in-waiting and genuine potentiality-as-contingency that Guillaume marks out when he distinguishes between the formation of aspect and mood as two separate chronotheses. In the subjunctive mood (which corresponds to the formation of mood), there is only a possibility of taking place at some indeterminate future point. The first time image, constituted by *temps impliqué*, retains at the same time the possibility of not taking place. Agamben argues that the passage from potentiality to actuality does not consist in the exhaustion of impotentiality. Focusing on the constitution of potentiality itself through *temps impliqué* provides an alternative to the trajectory of temporal actualisation suggested by the chronogenesis as a whole. This proceeds from impotentiality through potentiality to actuality, as *temps impliqué* is subordinated first to universe time and then to *temps expliqué*. The local actualisation of *temps impliqué* itself, however, offers a different model of the passage from potentiality to actuality. The concept of *temps impliqué* requires thinking potentiality as a relation to itself. In this way, it substitutes privative for modal negation: it is not that impotentiality’s ‘can not be’ is inverted into the ‘cannot not be’ of necessity, but instead actuality becomes what ‘can not not be’.

If *temps impliqué* determines the location of a possibility on a spectrum from potential to actual, the refrain then becomes a measure not of the extent to which an existing possibility in musical material is realised in actuality, but of the degree to which this possibility is itself formed. It is precisely in conventional material’s manifestation as a refrain – in its reappearance under the Nietzschean test of repetition – that it reveals the extent of its own consistency and actualisation. Whereas thematic development gauges the progress of the exposition’s first liquidation, the refrain is an index of the degree of cadential liquidation. The refrain measures the extent to which convention (as generic tonality) is realised not as (motivic) particularity, but as (cadential) prototype.

On this model, the refrain cadences do not so much coincide with as sit perpendicular to or athwart the process of cadential liquidation. At first blush K. 491 seems to resemble closely Spitzer’s example of the first movement of the ‘Jupiter’ Symphony (K. 551), where the

cadential descent in the second subject also emerges from a middleground prolongation of <^>5. But in what sense can one speak of 'focalisation', 'stripping away' and 'unmasking' (Spitzer 2008, p. 199) when the prototype recurs so prominently throughout the second group as a refrain cadence? K. 551 proceeds through more varied incarnations of the descent from <^>5, the figure continuing to bubble up all the way into C-space until it appears as a residual motivic figure. In neither movement is the EEC itself attained by the melodic descent from <^>5; rather, it is attained by way of the simpler Mi–Re–Do schema (Gjerdingen 2007, pp. 142–5), suggesting that cadential liquidation does not in fact coincide with expositional closure. This assumes that the EEC in K. 551 comes at bars 110–111. Hepokoski and Darcy merely cite this S-space, immediately after their discussion of refrain cadences, as a 'related situation […] of unusual revisitings of seeming S-material' whose dialogic complexity is to be savoured more than solved (2006, p. 159), but an analysis may be reconstructed: if the first PAC at bars 70–71 is reopened by the repetition of earlier P material leading to a postmedial caesura-effect at bars 78–79 before the C minor episode, then the PACs at bars 88–89 and 93–94 are reopened by the immediate repetition of what is now deemed S-material; the new theme at 101 continues the deferral with a threefold repetition of its PAC.

In K. 491 it is the refrain cadence that acts as a counterforce against the will-to-closure embodied in the rhyming Mi–Re–Do trill cadences preceded by Do–Re–Mi opening gambits. Caplin argues that expositional closure typically warrants an expanded cadential progression (1987, p. 216), and this is precisely what distinguishes the movement's trio of trill-cadences from the more abbreviated refrain schema. In the first trill cadence, the harmonic rhythm slows from the refrain cadence's one harmonic function per crotchet beat to one per bar (bars 196–200). The second trill cadence halves this to one every two bars (bars 257–265), while in the recapitulation the progression is lengthened further through the expansion of the pre-dominant function with an inserted chromatic passing note in the bass supporting vii^7/V. K. 413 similarly distinguishes its trill cadence in the solo exposition from the refrain cadences, again with the Do–Re–Mi opening followed by an expanded Mi–Re–Do cadential progression. The argument over the location of the EEC admits of yet another solution: seeing the chain of refrain cadences as a process of actualisation sitting alongside and interacting with, but not reducible to, the realisation of expositional closure allows for an alternative interpretation of movements such as this, where a sonata-theory reading suggests a massive expansion of S-space, in this case into the second tutti. In K. 491 it also opens up another dimension in which the drama between individual and collective may be played out.

The refrain cadences – conventionalised traces of the *ideé fixe* which stubbornly persist in the face of closure's actualisation – might then be described as a 'residue' of the cadential liquidation process, recalling Schoenberg's use of the term to describe what is left of musical material once it is stripped of its particularity (1967, p. 59). These residual cadences persist across the solo exposition's second group, refusing to dissolve into the process of expositional closure. Agamben argues that what is to be affirmed in the eternal return is contingency as such: the possibility as a whole that something will or will not take place (1986, pp. 9–17). This explains Nietzsche's *amor fati*: what returns eternally is the repetition of impotentiality in all actuality. Similarly, what the refrain cadences bring back with each repetition – with every instance of the prototype – is the possibility that the convention may or may not realise its functional potential as the endpoint of expositional closure. Recall Caplin's adage that not every cadential formula functions as cadential closure (2004, pp. 81–5). That is why it is possible to reopen a previous PAC through the repetition of a refrain cadence. If a schema is not reducible to the combination of outer voices, but also includes the fulfilment of a particular function (Gjerdingen 1988, p. 37), what comes back in the refrain cadence is the potentiality for a particular nexus of melody, bass and harmonic progression to realise itself as a cadential function capable of bringing about closure – or, put otherwise, the potentiality for closure to effect itself in the guise of a particular formula. What returns, then, in the eternal return of the refrain cadence is the very possibility of cadencing *like that*.

Schoenberg thinks of liquidation as a process which, in moving towards a conventional cadential formula, eliminates all but those features (the conventional ones) 'which no longer demand a continuation' (1967, p. 58) The idea, as Jonathan Kramer explains, is that 'convention rather than contextual references […] avoids any implications toward the piece's future which would work against coming to a close' (1982, p. 4). The capacity to close, then, derives from the exhaustion of thematic potentiality. The refrain cadence is arguably therefore in a different category from the recaptures of thematic portions of S via which the concept is introduced (Hepokoski and Darcy 2006, p. 158). If the former retrospectively defers the EEC by prolonging the potentiality proper to thematic particularity, the later revisits convention in its impotentiality, returning each previous sounding of the formula to its functional contingency. The refrain cadence reopens the EEC less because it recaptures a particular melodic-harmonic configuration from earlier in the movement than because it returns to a particular state of actualisation already reached. This is why the refrain cadence can be of a very generic type and may be recaptured over lengthy time spans without attenuating the reopening effect: it does not depend upon the listener's recalling the specific surface details of

an earlier cadence, but involves returning to a degree of actualisation at which the stock pattern may or may not fully realise itself as a cadential schema capable of effecting expositional closure. The initial quick succession of refrain cadences in K. 413 begets a long-delayed recapture because the proximity leads to a disproportionate sense of thematic particularity (of the cadence belonging to the particular theme) which tends to militate against closure. K. 491 may be distinguished by the variety of thematic material which the refrain cadence is used to close; this tends to push the cadence in the direction of generic convention and reduces expectations of later reopening. Coupled with the significant reordering and omission in the recapitulation, this goes towards the impression in this movement of the soloist being at the arbitrary mercy of fate.

The concept of impotentiality brings us back to the question of the second group's temporal disposition. Spitzer's notion of cadential emergence does not share the same backward-looking connotations as Hepokoski and Darcy's conception of EEC deferral, but instead entails a sense of 'vertiginous intensity' stemming from liquidation's compression of a larger time span into a small-scale motivic detail. Traditionally, theories of possibility have likewise strictly prohibited past contingency: once an event is over, there is no looking back. Against the headlong actualisation of horizontal thematic liquidation and vertical cadential emergence, I propose to hear in the repetition of the refrain cadence a more leisurely diagonal. This depends on the distinctive temporality of PAC reopenings: understood in its full force, Hepokoski and Darcy's theory violates the ban on past contingency by suggesting that the past can still be otherwise than it was. The mere repetition of a cadential pattern undoes the presumption in favour of its functional efficacy. PAC reopenings thus restore impotentiality to the past: what was may now not have been.

This reading produces a provocative reversal: Hepokoski and Darcy, supposedly thinkers of teleology and completion, become, against Caplin's and Spitzer's models of actualisation, the defenders of impotentiality and of the virtual. This conclusion also suggests a rider to Deleuze and Guattari's theory of the refrain: if the refrain is *temps impliqué*, then music as deterritorialisation is not something other than the refrain, but simply its eternal return. This is the logic played out in the first movement of Mozart's K. 491: while the repetition of the opening ritornello's *ideé fixe* threatens fate as the ultimate inevitability, the solo exposition embraces a Nietzschean *amor fati* as an affirmation of contingency.

NOTES

1. Although there has been some debate over whether K. 491 is less theatrical than K. 466, many commentators have noted its dark tone and the high degree of intensity in the interaction between orchestra and soloist. See especially Keefe (2001), who suggests that the unprecedented symmetrical organisation of its dialogical aspects may even be the motivation for the deferral of expositional closure, while Kerman hears in the development's duel 'a rare example of a real struggle' between 'aggressive' orchestra and 'horrified' soloist (1994, pp. 163).
2. Deleuze saw the fundamental lesson of Guillaume's work as substituting a differential position for Saussure's relation of opposition. Deleuze also spoke highly of Guillaume in his Paris-VIII classes on cinema (19 and 26 March 1985), Bibliothèque nationale archives.
3. I follow here Derrida's well-known critique of (self-)presence (2011). To forge this connection between present and self-presence, Derrida reads Husserl's analysis of the 'living present' experienced in hearing oneself speak (p. 67): in so far as I hear myself speak immediately in the very moment that I am speaking, I am present to myself without any temporal dislocation, such that self-presence occurs in the pure present of the now. One of the consequences of the critique of self-presence is Derrida's attributing to the text what might be described as 'agency', a tendency seen more widely in Continental thought, including in Deleuze and Guattari's discussion of the musical refrain. Accordingly, in this article I see music and listening as mutually constitutive, such that when the activity of listening recalls an earlier cadence in hearing a later one, this listening activity is heard as an effect promoted by a musical style which already anticipates and depends upon its interaction with a listener: it is in this sense that the music can be said to return to itself, for example.
4. I discuss the distinction Caplin makes between cadential arrival and cadential function in greater detail below, alongside his concerns about the projection of local cadential function onto higher structural levels. See Caplin (2004), pp. 77–81.
5. See Caplin, Hepokoski and Webster (2009), pp. 31–4, where Caplin expressly concludes that a focus on form functionality 'forces us to confront directly the processes that create musical time.'
6. What follows is a step towards a task that Caplin himself postpones until further study: 'a detailed investigation of how loosening devices can be distributed in a group of

subordinate themes and the nature of the ensuring overall form exceeds the bounds of this study' (1998, p. 273 n. 76).

7. The piece cited is Mozart's Twelve Variations on 'Ah vous dirai-je, Maman', K. 265. It is not clear why Deleuze and Guattari select this example, except that the theme's repeated notes introduce an unusual degree of repetition at the most local level within the theme. It is also unclear from their observation that the theme is 'internally doubled' whether they recognise the rounded binary construction as normative. I return later to why we might read an emphasis on variation procedure in this reference to Mozart.
8. Mozart's love of variation-type procedures has long been noted in the literature. See, for example, Ivanovitch (2008) and (2010), as well as Agawu (1996); for a comparison of Mozart's and Haydn's respective approaches to variation, see Sisman (1993), pp. 196–234.
9. The <f><^>6–<^>5 neighbour is a staple of tonal music, often operating in counterpoint with the chromatic passing-note motion through <s><^>4 so typical of cadential bass lines. There are myriad examples from the late eighteenth and early nineteenth centuries of pieces that elevate this local voice-leading motion to the level of global structure, often via the augmented sixth, which <f><^>6 supports. The A<f>–G dyad returns throughout the concerto, especially in the finale, where it is also recast as a Neapolitan inflection.

REFERENCES

Agamben, Giorgio, 1986: 'The Eternal Return and the Paradox of Passion', *Stanford Italian Review*, 6/i–ii (1986), pp. 9–17.

_____, 2005a: *La potenza del pensiero: saggi e conferenze* (Vicenza: Neri Pozza).

_____, 2005b: *The Time That Remains: a Commentary on the Letter to the Romans*, trans. Patricia Dailey (Stanford, CA: Stanford University Press). Originally published as *Il tempo che resta: un commento alla Lettera ai Romani* (Turin: Bollati Boringhieri, 2000).

Agawu, V. Kofi, 1996: 'Mozart's Art of Variation: Remarks on the First Movement of K. 503', in Neal Zaslaw (ed.), *Mozart's Piano Concertos: Text, Context, Interpretation*, ed. (Ann Arbor: University of Michigan Press), pp. 239–60.

Aristotle, 1933: *The Metaphysics, Books I–IX*, trans. Hugh Tredennick, Loeb Classical Library 271 (Cambridge, MA: Harvard University Press).

Caplin, William E., 1987: 'The "Expanded Cadential Progression": a Category for the Analysis of Classical Form', *Journal of Musicological Research*, 7/ii–iii, pp. 215–57.

_____, 1998: *Classical Form: a Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven* (Oxford and New York: Oxford University Press).

_____, 2004: 'The Classical Cadence: Conceptions and Misconceptions', *Journal of the American Musicological Society*, 57/i, pp. 51–117.

Caplin, William E.; Hepokoski, James; and Webster, James, 2009: *Musical Form, Forms and Formenlehre: Three Methodological Reflections*, ed. Pieter Bergé (Leuven: Leuven University Press).

Deleuze, Gilles, 1983: *Nietzsche and Philosophy*, trans. Hugh Tomlinson (London: Athlone Press). Originally published as *Nietzsche et la philosophie* (Paris: Presses Universitaires de France, 1962).

_____, 1991. *Bergsonism*, trans. Hugh Tomlinson and Barbara Habberjam (New York: Zone Books). Originally published as *Le Bergsonisme* (Paris: Presses Universitaires de France, 1966).

_____, 2004: *Difference and Repetition*, trans. Brian Massumi (New York: Continuum). Originally published as *Différence et répétition* (Paris: Presses Universitaires de France, 1968).

Deleuze, Gilles and Guattari, Félix, 2004: *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (New York: Continuum). Originally published as *Capitalisme et schizophrénie 2: Mille plateaux* (Paris: Éditions de Minuit, 1980).

Derrida, Jacques, 1988: *The Ear of the Other: Otobiography, Transference, Translation*, trans. Peggy Kamuf (Lincoln: University of Nebraska Press). Originally published as *L'oreille de l'autre (otobiographies, transferts, traductions): textes et débats avec Jacques Derrida, sous la direction de Claude Lévesque et Christie V. McDonald* (Montreal: VLB éditeur, 1982).

_____, 2011: *Voice and Phenomena*, trans. Leonard Lawlor (Evanston, IL: Northwestern University Press). Originally published as *La Voix et le phénomène* (Paris: Presses Universitaires de France, 1967).

Gallope, Michael, 2010: 'The Sound of Repeating Life: Ethics and Metaphysics in Deleuze's Philosophy of Music', in Hulse and Nesbitt, *Sounding the Virtual*, pp. 77–102.

Gjerdingen, Robert O., 1988: *A Classic Turn of Phrase: Music and the Psychology of Convention* (Philadelphia: University of Pennsylvania Press).

_____, 2007: *Music in the Galant Style* (Oxford and New York: Oxford University Press).

Guillaume, Gustave, 1929: *Temps et verbe: théorie des aspects, des modes et des temps* (Paris: Éditions Champion).

Hallward, Peter, 2006: *Out of this World: Deleuze and the Philosophy of Creation* (London: Verso).

Hepokoski, James and Darcy, Warren, 2006: *Elements of Sonata Theory: Norms, Types, and Deformations in the Late-Eighteenth-Century Sonata* (Oxford and New York: Oxford University Press, 2006).

Hirtle, Walter, 2007: *Language in the Mind: an Introduction to Guillaume's Theory* (Montreal: McGill–Queens University Press).

Hulse, Brian, 2010: 'Thinking Musical Difference: Music Theory as Minor Science', in Hulse and Nesbitt, *Sounding the Virtual*, pp. 23–50.

Hulse, Brian and Nesbitt, Nick (eds), 2010: *Sounding the Virtual: Gilles Deleuze and the Theory and Philosophy of Music* (Farnham: Ashgate).

Ivanovitch, Roman, 2008: 'Showing Off: Variation in the Display Episodes of Mozart's Piano Concertos', *Journal of Music Theory*, 52/ii, pp. 181–218.

_____, 2010: 'Recursive/Discursive: Variation and Sonata in the Andante of Mozart's String Quartet in F, K. 590', *Music Theory Spectrum*, 32/ii, pp. 145–64.

Keefe, Simon P., 2001: *Mozart's Piano Concertos: Dramatic Dialogue in the Age of Enlightenment* (Rochester, NY: University of Rochester Press).

Kerman, Joseph, 1994: 'Mozart's Piano Concertos and their Audience', in James M. Morris (ed.), *On Mozart* (Cambridge: Cambridge University Press).

Kramer, Jonathan D., 1982: ‘Beginnings and Endings in Western Art Music’, *Canadian University Music Review*, 3, pp. 1–14.

Malabou, Catherine, 2010: ‘The Eternal Return and the Phantom of Difference’, *Parrhesia*, 10, pp. 21–9.

Nietzsche, Friedrich, [1908] 1990: *Ecce Homo*, trans. W. Kaufmann (New York: Vintage).

Schoenberg, Arnold, 1967: *Fundamentals of Musical Composition*, ed. Gerald Strang and Leonard Stein (London: Faber & Faber).

Sisman, Elaine, 1993: *Haydn and the Classical Variation* (Cambridge, MA: Harvard University Press).

Spitzer, Michael, 2004: *Music and Metaphorical Thought* (Chicago: University of Chicago Press).

_____, 2007: ‘Sonata Dialogues’ [review of Hepokoski and Darcy 2006], *Beethoven Forum*, 14/i, pp. 150–78.

_____, 2008: ‘A Metaphoric Model of Sonata Form: Two Expositions by Mozart’, in Danuta Mirka and Kofi Agawu (eds), *Communication in Eighteenth-Century Music* (Cambridge: Cambridge University Press), pp. 189–229.

NOTE ON CONTRIBUTOR

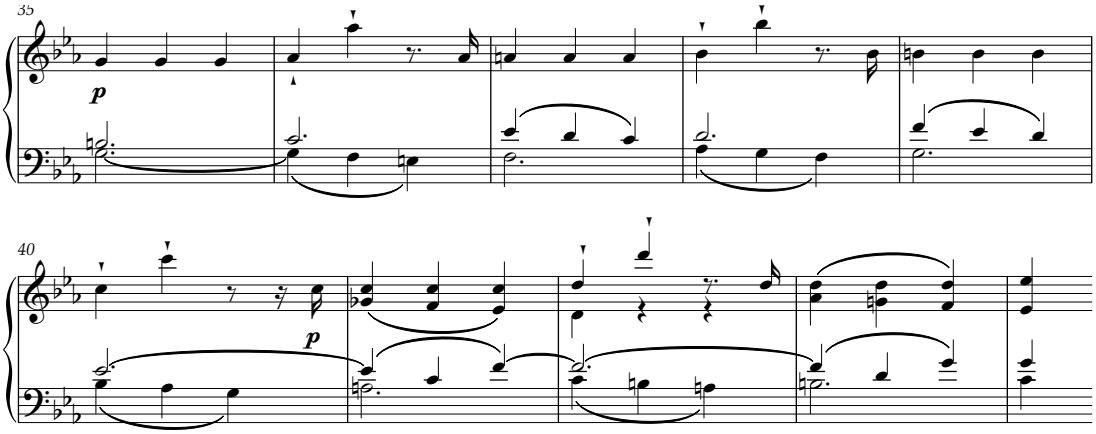
NAOMI WALTHAM-SMITH is Assistant Professor of Music at the University of Pennsylvania. Her research sits at the intersection of music theory, sound studies and contemporary European philosophy, and she has published in journals from *Music Theory Spectrum* to *boundary 2*. Her book *Music and Belonging between Revolution and Restoration* was published by Oxford University Press in July 2017, and she is currently writing a second book, *The Sound of Biopolitics*, for a political philosophy series.

ABSTRACT

This article proposes an alternative way to think about the process of expositional closure. The recent resurgence of *Formenlehre* has given rise to a dispute about the correlation between expositional closure and the sequence of local perfect authentic cadences in the second group. Noting that the two sides of the debate produce opposing representations of the temporality of listening, I draw upon philosophical and linguistic models of actualisation to theorise the way in which expositional closure is realised across the second group. To this end, I focus on the refrain cadences in the first movement of Mozart's Piano Concerto in C minor K. 491 which, as a means of deferring expositional closure, sit uneasily alongside other strategies of thematic loosening and cadential liquidation. The idea of the refrain leads me to Gilles Deleuze's theory of repetition and from there, via the notion of *temps impliqué*, to Gustave Guillaume's system of verb formation—both of which problematise the passage from potentiality to actuality, isolating a dimension of contingency as that which may or may not come to pass.

Ex. 1 Mozart, Piano Concerto in C minor, K. 491/i, bars 1–13

Ex. 2 K. 491/i, bars 35–44



Ex. 3 K. 491/i, bars 118–129

Ex. 4 K. 491/i, bars 220–227

Ex. 5 K. 491/i, S1:\S refrain cadences

Fig. 1 Correspondence bars in Mozart's K. 491/i

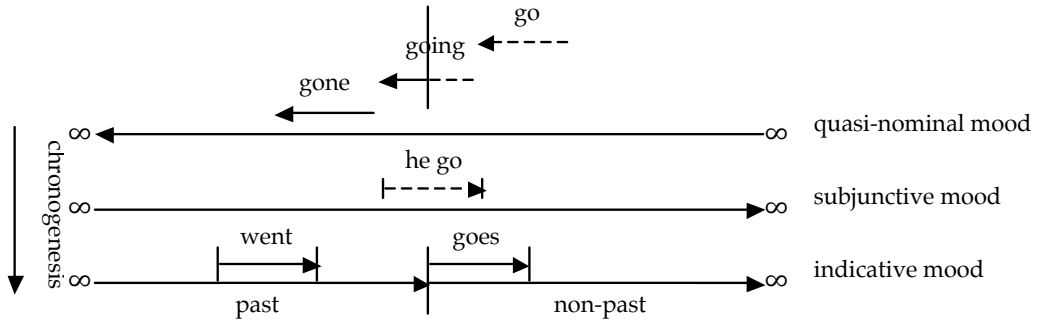
S-module	Bars in exposition	Correspondence bars in recapitulation
Preceding CF	35–44	435–444
R1:\S	44–63	444–463 (now in S3)*
S1:\S[1]	147–200	410–435 (now S3:\TM[2])
Solo statement	147–156*	410–419*
Orchestral restatement	156–165*	419–428*
Expansion	165–200 (multimodular expansion culminating in first trill cadence)	428–435 (shortened and reworked to form second MC-effect)
S1:\S[2]	201–220*	391–410 (now S3:\TM[1])*
S1:\S[3]	220–241*	-
S1:\S[4]	241–249*	-
S1:\S[5]	249–265	463–473 (brief allusion to S1)
Non-thematic module	249–257*	-
Expansion leading into:	257–	463– (reworked)
Final trill-cadence (EEC)	261–265	469–473

* ends with refrain cadence

Ex. 6 K. 491/i, bars 147–156

Ex. 7 K. 491/i, bars 257–265

Fig. 2 Guillaume's system of the verb



Ex. 8 K. 491/i, bars 211–214

Ex. 9 K. 491/i, bars 241–257