ABSTRACT

A certain tonally- and temporally-oriented progression of two triads, dwelt upon usually through undulation, accompanies scenes depicting the contemplation of a considerable sorrowful loss in many popular films and throughout one television program produced between 1985 and 2012. In lieu of any strong stylistic precedent for this musico-dramatic association, certain structural relationships between the two triads relative to other triadic pairings may account for possible motivations of the association.

Keywords: film music, television music, tonality, triadic harmony, triadic transformation, mediant triad, loss, sorrow, homology, James Horner, Cocoon

   The narrative of Ron Howard's 1985 movie *Cocoon* brings two parties into conflict: a peaceable and immortal alien race suffering from the regrettable but necessary abandonment of twenty of their kind on Earth thousands of years ago, and a group of present-day retirement-home residents in Florida suffering from degradation of health and vitality. To counter these adversities, both parties use a lifeforce generated in a neglected swimming pool by a team of four aliens, led by Walter (Brian Dennehy), sent back to Earth to retrieve their stranded and cocooned comrades. The pool restores the abandoned aliens to full health, a requirement for their interstellar journey home, but it also acts as a "fountain of youth" for a trio of elderly men—Art (Don Ameche), Ben (Wilford Brimley), and Joe (Hume Cronyn)—who surreptitiously swim there; for example, the alien lifeforce miraculously throws Joe's leukemia into

remission. When the alien team discovers the trio's abuse of the pool, however, Walter bans the trio from the pool, which brings Joe's cancer back.

Composer James Horner, in his first of eight collaborations with director Howard, provides the music transcribed in Example 1 to accompany the following sequence that implies the relapse of Joe's illness.[1] The music of the first four measures occurs during a brief interior scene depicting the recurrence of Joe's lethargy. The change to A major in m. 16 coincides with a dissolve to the next exterior scene, which shows the trio sitting together at the end of a pier, looking out wistfully onto a sunset-drenched ocean. By their motions and facial expressions—Ben has his hand on Joe's arm, Joe sinks his head in despair and labors in his breathing—not to mention Ben's scene-concluding objection "I'm gonna go talk to [Walter]; goddamnit, it's ridiculous," it can easily be inferred that they are pondering Joe's disease and his impending death.

Example 1. James Horner, music from *Cocoon* (transcribed by the author), 49:20, quarter ≈ 96 (then quarter ≈ 86 at m. 16)

Twenty minutes later in the film, Walter reluctantly allows the trio back in the pool; however, the other retirement-home residents learn about the pool and ransack it, draining it of lifeforce. Joe, Art, and Ben try to get their fellow residents out of the water, but Walter discovers them and drives the aged trespassers away. As Walter and one of the other aliens work to open one of the cocoons, the music of Example 2 begins; m. 9 coincides with the cut to the first shot inside the cocoon of an emaciated and languid alien, quite dissimilar from the radiant forms underneath the skin-deep disguises of the alien rescue team. Head sagging and eyes closing, the alien loses consciousness in Walter's arms with the return of the oboe in m. 33, and the louder, fuller sequential passage in mm. 35–38 accompanies Walter's discovery of tears on his own face. During the concluding nine measures, Walter explains that "the lifeforce is completely drained from the water. I'm not going to be able to bring them back [to their home planet]."

These two sequences in the film produce a neat narrative symmetry: during the first sequence, the aliens rob the mortal humans of the lifeforce, returning to the humans the likely and agonizing prospect of a death of one of their own; during the second sequence, the humans rob the sojourning aliens of the lifeforce, returning to the aliens the likely and agonizing prospect of a separation from some of their own. Horner's music parallels this symmetry by reusing certain melodic-motivic ideas: for example, mm. 2–9 in Example 1 and its reiterating G♯–A♯–B motive is extremely similar to mm. 1–8 in Example 2. Central to the present study, however, is another, slightly broader, musical parallel: both musical cues contain a deliberate and quiet alternation between the tonic triad and the diatonic mediant triad while in a major mode. This alternation, annotated by solid triangles, occurs in Example 1 in mm. 16–25 and in Example 2 in both mm. 9–16 and mm. 45–53.

Horner seems to match these harmonic alternations particularly with the moments in these scenes in which characters are grappling with a significant loss—of life, closeness, or energy—that has either taken place or will soon take place. In the first sequence, accompanied by Example 1, the tonic and mediant alternation occurs during the moment of greatest contemplation of Joe's terminal disease in the sequence: the alternation is after the scene in

Example 2. Horner, *Cocoon*, 1:12:56, quarter ≈ 82 (then quarter ≈ 94 in m. 9)

which the loss is communicated to the viewer (mm. 1–15) and before the point in time when Art and Ben, sitting

with Joe at the end of the pier, get up in preparation to depart. In the second sequence, accompanied by Example 2,

the tonic and mediant alternation first occurs when the aliens—along with the viewer—first painfully behold the

effects of the lifeforce drain on the dormant alien whose cocoon has been opened. To be sure, their grief continues

after this particular harmonic alternation finishes in m. 17; in fact, an alternation between the major tonic triad and

the minor dominant triad takes hold of the music. However, the initiation of a new, resurgent idea in mm. 35–38

aligns with a subtle narrative redirection: Walter's surprise that he is crying. A longer shot of the pool and its many

cocoons shows Walter collecting himself around m. 42; his spoken realization that he cannot take his friends back

home coincides with the cue's concluding tonic-mediant alternation in mm. 45–53.

One of my primary aims in the pages to follow is to show that these tonal-harmonic parallels with the narrative

continue well beyond *Cocoon*. Slow, soft undulations between a major tonic triad and its diatonic mediant have been

precisely associated with moments of sorrow, particularly as the result of some kind of considerable loss either

transpired or looming, in at least twenty-eight recent popular films and in at least one, particularly cinematic, recent

popular television series produced in the twenty-six years after *Cocoon*'s release.

This article's structure and methodology both follows and departs from the blueprints of previous music-

theoretic studies that have recognized a significantly consistent association between a certain triadic progression and

a certain extra-musical concept within a well-delineated repertoire. Richard Cohn identified in art music from the

sixteenth to the twentieth centuries numerous coincidences between what he has called the "hexatonic-pole"

progression (such as C– to E+) and dramatic or hermeneutic narratives affiliated with Sigmund Freud's concept of

unheimlich.[2] I have reported multiple concurrences in recent Hollywood soundtracks between what I called the

"major tritone progression" (such as C+ to F♯+) and visual or narrative references to outer space.[3] Matthew

Bribitzer-Stull has found several instances in which the "Tarnhelm progression" of Wagner's *Ring* (such as C– to

A♭–) accompanies references to things evil and unnatural in repertoire ranging from early nineteenth-century music to contemporary film music.[4]

The second part of the present article resembles all three of these preceding studies most closely, in that it lists instances of the purported association that are hopefully numerous enough to convince the reader of the distinctiveness of the association. The third and fourth parts resemble Cohn's and my studies in that they offer some hypotheses for a purported motivation of the association: why this musical idea has assumed this particular association in recent popular film and television, and why the association seems to work so well. These parts are prefaced by a first part that offers both a more exact description of the pitch components of the musical half of this association than what current transformational theory provides, along with a recognition of the role of non-pitch parameters in securing the association, thus deviating from all three of these studies the most, while at the same time proposing a nomenclature that could serve future studies of this sort.

Example 3. A prototype of the loss gesture

I: THE "LOSS GESTURE"

Musical utterances like those of Example 3, a prototype of what I will call the "loss gesture," have been associated with the contemplation of a loss-generated sorrow during many moments in popular film and television from 1985 to 2012. In many ways, the loss gesture is a musical "schema," a cluster of musical characteristics that facilitates categorization and comparison within a certain style. Nonetheless, I venture to use the word "gesture," in

part to distinguish this kind of abstraction from Robert Gjerdingen's galant schemata, which are centrally although not exclusively defined by outer-voice designs.[5] Moreover, my conception of the kind of music that Example 3 represents corresponds well with most of the twelve features of a musical gesture that Robert Hatten enumerates.[6] For example, Hatten recognizes that "[t]he elements synthesized in a musical gesture include specific timbres, articulations, dynamics, tempi, pacing, and their coordination with various syntactic levels (e.g., voice leading, metric placement, phrase structure)."[7] Many different musical parameters contribute to the definition of the loss gesture, and the specific configuration of these different parameters, along with its frequent conjunction with a certain expressive context, designates it as a "style type."[8] Although pitch characteristics do not alone make a loss gesture, it behooves me to spend some time with them, if only to anticipate and curb possible over- and under-generalizations.

I describe the loss gesture's combination of pitch and tonal properties as "M4m," where M4m is short for "major-4-minor," which necessarily and sufficiently exhibits two properties.[9] First, M4m puts a major triad with a root x immediately adjacent to a minor triad with root y such that the pitch-class distance from x to y is 4 semitones. In Example 3, E is 4 semitones "above" C in pitch-class space. This property is the reason for the three characters in the M4m label: the "M" and "m" indicate the quality of the two triads, and the "4" indicates the ordered pitch-class interval from the root of the first to the root of the second.[10] Second, the major triad is tonicized, or is at least interpreted as "more" of a tonic than the minor triad. In Example 3, the Roman numerals indicate this tonicization, and the solid triangle, used in notated examples, points toward the tonicized chord. This property of major-triad tonicization is the reason for the order of the m's in the M4m label: the "M" is first because the major triad is tonicized, not because it occurs first in time (which it sometimes does not). If instead the minor triad were tonicized in Example 3, the progression would be labeled as m8M, and would also be designated as the "tonal inverse" of M4m. As there are two modal options each for the tonic and non-tonic triads, and twelve options for n, there are forty-eight (2×2×12) possible "MnM"s, but two of them—M0M and m0m—are trivial. The tonicization occurs

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through position asserting—the major triad begins after ample silence, begins or ends a new formal section, or the major triad is emphasized more than the minor triad through duration, (hyper)meter, or some other means—or position finding—the profile of the key of the major triad as tonic scores higher using contiguous pitch-class information than the profile of the key of the minor triad as tonic—or both.[11]

At this point, it is worth distinguishing M4m from *Leittonwechsel* (L for short), Hugo Riemann's name for the relationship between two triads as sufficiently described by the first of the two properties listed above.[12] Because of the inclusion of this first property, every M4m can also be understood as expressing an L relationship. However, the second property stipulates that not every L relationship expresses a M4m. Charles Smith was perhaps the first to offer this subcategorization, which distinguishes between "L (major)" (what I call M4m) and "L (minor)" (what I call m8M, M4m's tonal inverse).[13] For example, each progression between adjacent triads in the final nine measures of Example 2 invites both the L transformational label—tonality aside—and the M4m label, with the recognition that the preceding music is clearly in E major and the pitch with the final say is E. If these final nine measures were instead placed into a G♯-minor context, the L transformational label would remain appropriate, but the M4m label would no longer be; rather, these progressions would be described with the m8M label.

In an article on Riemannian analysis of pop-rock music, Guy Capuzzo has suggested that Riemannian labels for triadic relationships are also particularly suitable for analyzing recent popular film music.[14] On the one hand, this suggestion is well worth taking, for much of the film music written for recent mainstream Hollywood productions can be just as chromatic, and use major and minor triads even more exclusively, than the music of late nineteenth-century composers for which Neo-Riemannian theory was originally designed. On the other hand, many entrenched extra-musical associations in recent popular visual media that these triadic progressions take part in appear to be dependent not only upon the Riemannian relationship, but also upon the quality of the triads—thus downplaying any inversional, dualistic equivalence of relationships—as well as the tonal orientation of the progression. For example, any m8m relationship—such as the relationship between a tonicized G♯-minor triad and an E-minor triad—could

also be described in the Riemannian manner as a *Terzschritt*; more precisely, *Terzschritt* transforms the former into the latter. The fact that a *Terzschritt* also transforms a major triad into another major triad whose root is four semitones higher can provide a means to compare two seemingly dissimilar progressions, as Lewin does in comparing two themes from Wagner's *Ring*.[15] Contrastingly, in recent popular film music, as demonstrated in the examples used by Bribitzer-Stull, the *Terzschritt* progressions that are most often associated with malevolence, antagonism, or eeriness generally exclude not only those *Terzschritte* that relate major triads (M4M or M8M, as one would expect with malevolence and its offshoots) but also those *Terzschritte* that invert the tonicization (m4m, as one might not expect).[16] This suggests that research aspiring to codify the common associations between triadic progression and cinematic narrative should refine the Riemannian point of view with other tonal and harmonic information.

The loss gesture requires more than the mere presence of the M4m progression, however. Several other features—what I will refer to throughout as the "non-M4m" features—are requisite. Perhaps most necessary among these non-M4m features is that the M4m progression be drawn out and dwelt upon. This protraction can take place in one of two basic ways, and often both. First, a loss gesture sustains the M4m's major triad and minor triad each for at least 1.5 seconds and often considerably longer, but typically of the same duration as the other, creating a regular harmonic rhythm. The tempo marking of Example 3 stipulates a length of four seconds for each chord, which approximates the mean and median of the harmonic durations in the instances surveyed below. Second, as expressed by the repeat sign in Example 3, the progression typically undulates back and forth between the two chords, often multiple times. The entire time elapsed by M4m material—either through a slower harmonic rhythm, an oscillatory pattern, or both—is at least five seconds, but among the surveyed instances, the entire time averages around eighteen seconds. Moreover, the loss gesture avoids detached or staccato articulations of the chords of the M4m; rather, legato connections preponderate. Lastly, loss gestures are generally soft and typically involve intimate and delicate timbres such as strings, piano, guitar, harp, celesta, and/or wordless chorus.

A proper conclusion of this description of the loss gesture prototype should acknowledge three variances allowed within loss gestures that Example 3 does not display. First, the progression may be transposed to any of the twelve major keys. Second, the literal voice leading between the two chords is undetermined; any voice may ascend, descend, or maintain a common note into the second chord. Third, for either the major or minor chord, the bass may use any one of the three available triadic notes, although the root is used most often.

II: EVIDENCE FOR THE ASSOCIATION

This second part offers forty-five instances of the loss gesture in the work of eighteen composers in twenty-nine recent popular films and sixteen instances of the loss gesture in the work of one composer throughout a recent popular television series.[17] Up to now, these films have been simply described as "popular," despite the vagueness of this term. For the purposes of this article, this term refers to those mainstream and primarily Hollywood studio products of motion picture entertainment that primarily employ A-list actors and directors, mostly incorporate traditional narrative techniques and visual styles that are familiar and appealing to a broad consumer base, and are widely marketed and distributed, but are not necessarily box office successes. On the one hand, theorizing about the music written for this genre is extremely challenging, given the great number of musical compositions that fall into this category. For example, the number of films that are similar to those surveyed below—mostly English-language films released by major production studios between 1985 and 2012—easily reaches the thousands. Although I have studied hundreds of film scores within these generic limits, I cannot profess knowledge of every film score that falls within these parameters. On the other hand, given its targeted audience, popular film music, like popular film, tends toward a standardization of practice: to paraphrase a book title from film theoretician David Bordwell, this is "the way that Hollywood music tells it."[18] For this reason, I am confident that my sample of sixty-one instances reflects a practice of musico-dramatic association in recent popular visual media that is more widespread than my individual

exposure to the genre; others familiar with this repertoire will probably know of other examples. Granted, this practice is best understood as normative, not regulative. Within this style, there are undoubtedly countless instances that break this associative rule, either with a cinematic portrayal of a sorrowful loss without a coincident loss gesture, or when a loss gesture on the soundtrack has little or nothing to do with a sorrowful loss. Nonetheless, in both my written notes on the harmonic language of the scores for over three hundred recent popular movies and my tacit experience accumulated through many years of listening to, composing, analyzing, and teaching this kind of music, I have found in this genre no other musical utterance defined as precisely, or more precisely, than the loss gesture that is as consistently associated with sorrow, nor have I found another narrative state defined as precisely, or more precisely, than sorrow that is as consistently associated with the loss gesture.

Rather than continuing to provide transcriptions, as I did for *Cocoon*, I have opted to present the data in a tabular format, which has been specifically designed to include an amount of information both sufficient to make my case—necessitating an *ad hoc* shorthand for relevant musical details—but still insufficient as a saleable reproduction of a whole of the artwork. Example 4 organizes the sixty-one instances of this association into rows ordered by date of the film's or television program's U.S. release, and into columns that relate certain information about the instance. Each instance is labeled with the timestamp (minutes:seconds or hours:minutes:seconds) marking the moment on the film's most recent DVD release when the first chord of the given harmonic progression in the given key begins. With the exception of the instance cited in *Hard Ball*, all of these progressions begin on tonic, which suggests that the I–iii progression is more indicative of the loss gesture's initiation than iii–I, although both naturally participate in an undulating loss gesture. The seven progressions in Example 4 that do not undulate between I and iii at least once are singled out with "(NU)" for "non-undulatory"; the fact that all of these use I–iii instead of the reverse further suggests that this triadic ordering, what I will call a "departure M4m," is an even more precise feature of the loss gesture. The "Drtn." column refers to the duration in seconds of each of the chords in the harmonic progression. In several cases, the rate of harmonic change is steady (perhaps allowing for slight shifts in tempo, a variance

Timestamp	Key	Harmony		Melody		Timbre	Volume	Articulation of tonic			Dramatic context	
		Progression	Dura-tion(s)	Direction(s) into iii	#4			Before	During	After	Category	Description
Cocoon (21 Jun 1985), dir. Ron Howard, comp. James Horner												
49:52	A	I-iii-I-iii-I-V	4.2	Dn	_5_	W.W., Hp	Soft	NS	HM, Bs $\hat{5}$	Cad	Death	Friends dwelling upon impending death of one of them from terminal cancer
1:13:13	E	I-iii-I-iii-IV	3.8	Unis, Dn	_3, 4_	Fl, Ob., Hn. Hp, Bs (pz.)	Soft	V^T, NS	HM, Bs $\hat{5}$	Cont	Other loss	Matches shot of enfeebled benevolent alien, reaction by beloved
1:14:22	E	I-iii-I-iii- $\hat{1}$	4	Unis, Dn	No	Ob., Sts., Tbn. (_3, 4_)	Soft	Est	HM, Bs $\hat{5}$	Sil	Other loss	Loss of alien lifeforce, then a realization that aliens cannot return home
Edward Scissorhands (14 Dec 1990), dir. Tim Burton, comp. Danny Elfman												
53:17	C	I-iii-I-iii-vi-iii-IV	2.9	Dn, then Up	_6_	Hp., Sts., Cel.	Soft	Est (weak), V^A	HM, Theme	Cont	Other loss	Title character is pining for beloved who is with her boyfriend
1:26:12	E♭	I-iii-vi-iii-IV (NU)	2.5	Up	_4_	Sts., Cel.	Soft	NS	HM, Theme	Cont	Death Other loss	Death of title character's beloved father/inventor and loss of human hands in front of title character
1:34:43	C	I-iii-I-iii-IV	3	Dn	_4_	Sts., E.H., Hp.	Soft	NS	HM, Theme	Cont	Other loss	Title character says "Goodbye" to beloved, parting will be final
Green Card (11 Jan 1991), dir. Peter Weir, comp. (of this sequence) Enya, "Watermark" from _Watermark_ (1988)												
1:21:01	F	I-iii-I-iii-IV	3	Dn	No	Pno.	Soft	Sil→I	HM	Cont	Other loss Sentiment	Woman out with boyfriend thinks wistfully about another man with whom she cannot have a relationship, continues into following sentimental scene
Hook (11 Dec 1991), dir. Steven Spielberg, comp. John Williams												
1:25:00	E	I-iii-I-iii-ii-I	2.5	Dn	No	Sts., W.W.	Soft	Sil→I	HM, Bs $\hat{5}$	Cont	Other loss	Boy longs for the home he has been taken from
2:09:17	F	I-iii-I-iii-IV-iv	~4.5	Dn	No	Chorus (SA), Hp.	Soft	Est (weak)	HM	Cont	Other loss	Mother lamenting the loss of her children, who have been missing for several days
Alive (15 Jan 1993), dir. Frank Marshall, comp. James Newton Howard												
1:28:08	G	I-iii-I-iii-I-iii-IV-I	2	Dn	No	Hp., Gtr.	Soft	Sil	HM	Cont	Death	Infirmed crash survivor tells another "I'm so close to God," he knows that he is about to die
1:29:18	G	I-iii-I-iii-I-iii-I-iii-I-iii-I-iii	2	Dn	No	Hp., Sts., Cl., Tpt.	Soft	Est	HM, Theme	No	Death	Crash survivor's death is announced, body is taken outside plane, other survivors intone the blessing "Eternal rest grant unto them, O Lord…"
The Hudsucker Proxy (11 Mar 1994), dir. Joel Coen, comp. Carter Burwell												
1:35:23	C	I-iii-I-iii64-IV	8	Unis	No	Sts.	Soft	Est, V^A	No	Cont	Other loss	Man has lost all hope, climbs out on a ledge of a tall building, plans to commit suicide

Est: Establishment of key beforehand
NS: Start of a new formal section
V^A: Active dominant beforehand
V^T: Tonicized dominant beforehand
Italicized Arabic numeral: Ordinal position in harmonic progression

Bs $\hat{5}$: Bass sounds $\hat{5}$ - $\hat{1}$ into tonic harmony
HM: Tonic harmony hypermetrically accented
Agogic: Tonic harmony agogically accented
Theme: Previously tonally oriented theme

Cont: Continues in key
Cad: Cadences in key
PF: Position finding
Sil: Silence before or after
NU: Non-undulating

Timestamp	Key	Harmony		Melody		Timbre	Volume	Articulation of tonic			Dramatic context	
		Progression	Dura-tion(s)	Direction(s) into iii	#4			Before	During	After	Category	Description
Legends of the Fall (13 Jan 1995), dir. Edward Zwick, comp. James Horner												
2:04:26	D	I-iii-I-iii-♭VII-ii-vi-IV-V-I	3	Up	2, 4	Sts., WW, Hp.	Soft	NS	HM	Cont	Other loss	Man needs to hide from his enemies, asks brother to watch over his family, whom the man will never see again
Casper (26 May 1995), dir. Brad Silberling, comp. James Horner												
52:21	D	I-iii-I-iii-♭VII-ii-♭VII-ii-I-iii-IV	3.3	Dn	2, 4	Chorus (SA), Sts., Low W.W.	Soft	Est	HM, Bs $\hat{5}$	Cont	Death Sentiment	Daughter reminisces about her dead mother
Powder (27 Oct 1995), dir. Victor Salva, comp. Jerry Goldsmith												
1:26:49	A	I-iii-IV-V (NU)	11	Up	2	Hn., Sts., Fl.	Medium soft	iv-	Theme	Cont	Other loss	Title character makes sorrowful decision to leave society and return to a life of isolation
The Chamber (11 Oct 1996), dir. James Foley, comp. Carter Burwell												
1:09:11	E♭	I-iii-I-iii-I-iii-I-iii-vi9	2.4, 4.3, 2.6, 4.5, 2.6, 4.5, 2.5, 4.7	Unis, Dn	No	Sts (W.W. 4-8)	Soft changing to medium soft	Est	Melodic PF	No	Other loss	Convicted murderer scheduled to be executed is depicted by his defense as a tragic victim, as one who never had the opportunity to acquire a moral compass
Ghosts of Mississippi (20 Dec 1996), dir. Rob Reiner, comp. Marc Shaiman												
7:29	C	I-iii-I-iii-vii-I, I-iii-I-iii-vii	1.2, 2.5, 1.2, 2.5, 3.7, 3.7, (sim.)	Up	5, 10	Sts., W.W.	Soft	$\hat{1}$	No	No	Death	Husband and father is mortally shot, mother and children discover him dying, cut to funeral during second use of Loss gesture
Lola rennt (Run Lola Run) (18 Jun 1999), dir. Tom Tykwer, comp. (of these two scenes) Charles Ives, _The Unanswered Question_ (1908)												
30:44, 51:51	G	I-iii-vi6/4-V65/IV-IV-ii-I6-I (NU)	14.4, 7.2	Dn	No	Sts.	Soft (_ppp_)	Sil	No	Cont	Death	Main character is mortally wounded in front of beloved
The Perfect Storm (30 Jun 2000), dir. Wolfgang Petersen, comp. James Horner												
25:16	C	I-iii-I-iii-IV	4	Dn	No	Sts., Hn., Synth. vib.	Soft	NS	HM, Bs $\hat{5}$	Cont	Other loss	Divorced man looks dolefully at picture of his young children, who are no longer in his custody and are hundreds of miles away
Pearl Harbor (25 May 2001), dir. Michael Bay, comp. Hans Zimmer												
26:11	C	I-iii6/4-I-iii-ii	3.6	Dn	3	Hn., Vln. Pno.	Soft	Sil→I	HM, Theme	Cont	Other loss	Soldier tells beloved that he is going off to war
1:16:02	C	I-iii-I-iii	6	Up	All	Sts., Pno.	Soft	Est, V^A	HM, Theme	No	Other loss	[Soldier, assumed dead, returns to beloved] Soldier realizes that beloved now loves soldier's friend, original relationship is lost
2:15:02	C	I-iii-I-iii	~5.5	Up	1	Sts. Pno.	Soft	Sil	HM	Not until 2:15:52	Other loss	Soldier realizes that original relationship with beloved cannot be reclaimed
Hard Ball (14 Sep 2001), dir. Brian Robbins, comp. Mark Isham												
1:34:22	G	iii-I-iii-I	2.3, 8, 2.3, 8	Dn	No	Sts., Hn.	Soft	Est, V^A	Agogic	Cont (PF)	Death	[Heartwarming eulogy for slain child told in flashback] Return to sorrow of funeral, including teary faces and three death knells

Example 4 continued.

Timestamp	Key	Harmony		Melody		Timbre	Volume	Articulation of tonic			Dramatic context	
		Progression	Dura-tion(s)	Direction(s) into iii	#4			Before	During	After	Category	Description
Iris (18 Jan 2002), dir. Richard Eyre, comp. James Horner												
1:26:43	D♭	I-iii-I-iii-I-iii-I	9.2, 5.8, 4.6 (_3-7_)	Up	No	Pno., Solo vln., Hn.	Soft	Est, V^A	No	Sil	Death	Title character has just died, husband weeps as he mourns
Benji: Off the Leash! (26 Mar 2004), dir. Joe Camp, comp. Anthony Di Lorenzo												
6:12	C	I6/4-iii6/4-I6/4-iii6/4-IV-I6/4-V	3, 3, 3, 3, 6, 3, 3	Up	No	Ob., Sts.	Soft	Sil	HM	Cont, Cad	Death Other loss	Dog is abused and left for dead, sympathetic boy leaves dog behind
Hidalgo (5 Mar 2004), dir. Joe Johnston, comp. James Newton Howard												
1:53:44	C	I6-iii6-I6-iii6-Imaj7-Dsus-Imaj7	3.6	Dn	_2, 4_	Sts., Hn.	Soft	NS	HM	Cad	Other loss Sentiment	Man sees vision of his lost mother, part of reconnecting with his Indian heritage
"Lost" (22 Sep 2004 - 23 May 2010), created J.J. Abrams, comp. Michael Giacchino												
S1, Ep20, 38:55 6 Apr '05	B♭	I6-iii-I6-iii-IV-I6-IV-V- (4x) I-iii-I-iii	~4.5	Up	No	Vcl. Solo, Sts., Pno.	Soft	Sil	HM, Theme	Cont	Life, death	Newborn baby is presented, woman is informed that brother has died, woman weeps over brother's body
S2, Ep21, 43:33 10 May '06	A	I6-iii-I6-iii-IV-I6	8	Up	No	Vcl. Solo, Sts.	Soft	NS	HM, Theme	Cont	Death	Woman dies, her beloved and friends weep and mourn her death
S3, Ep13, 37:10 21 Mar '07	E♭	I6-iii-I6-iii-I6-iii-I6-iii	~4	Dn	_5, 7_	Pno., Solo vcl., Sts.	Soft	Sil→I	HM	No	Other loss	[Man falls from eight stories and survives] Hospitalized man is placed in wheelchair, faces fact that he has lost ability to use both legs
S3, Ep23, 29:04 23 May '07	B♭	I-iii-I-iii-IV-vi-V-I-iii-I-iii-IV-I-IV-V-I-iii-I-iii-IV	4	Up	_1, 3, 7, 9, 17, 19_	Pno., Hp., Vcl. Solo, Sts.	Soft	NS	HM, Theme	Cont	Death	Man realizes he will drown, communicates important information, then dies in front of friend
S4, Ep7, 39:03 13 Mar '08	B♭	I-iii-I-iii-IV-I-IV-V- (3x) I-iii-I-iii-V-I	~6, (8 for final I-iii-I-iii)	Up	No	Pno., Vcl. Solo, Sts.	Soft	Sil→ ı̂	HM, Theme	Cont, Cad, Sil	Life, death	Newborn baby is presented, woman visits gravesite of deceased husband, woman mourns and weeps, concludes "I miss you so much" during final M4m
S5, Ep5, 11 Feb '09	F	I-iii-I-iii-I	~5	Unis	No	Pno, Sts.	Soft, medium soft (_5_)	Sil	HM, Theme (_5_)	Sil	Death	Weeping man mourns his beloved, who has just died
S5, Ep8, 10:05 4 Mar '09	C (1-4), F (5-8)	I-iii-I-iii-IV-vi-IV-vi	4, 11, 4, 12, 4, 12, 4, 18	Dn	No	Pno., Vcl.	Soft	Sil	None	PF (_5-8_ for _1-4_)	Death	Weeping man mourns the death of his beloved: "She's gone."
S5, Ep8, 31:56	C	I-iii-I-iii-ii-I-ii-V-I6/4-iii6-I6/4-iii6-IV	~7	Dn	No	Hp., Pno. Sts. (_8-13_)	Soft	ı̂	None	Unis, Cad	Death, other loss	Woman mourning over her recently deceased husband's body learns that she must give up his body to her enemies
S5, Ep8, 38:10	D	I-iii-I-iii-IV-I-IV-V-IV-V-I	~5	Dn	No	Sts.	Soft	ı̂	HM	Cont	Life, other loss?, sentimental	Man finds out that his wife gave birth to a baby boy, and he missed the birth
S5, Ep8, 39:19	D	I-iii6/4-ii-V-I-iii-ii-V6/4-I (NU)	~5	Up	No	Sts., Pno.	Soft	ı̂	HM	Unis, Cad	Other loss, sentimental	Man reminisces about a woman he loved three years ago, but with whom he did not pursue a relationship; he remarks that he has gotten over her

Example 4 continued.

Timestamp	Key	Harmony		Melody		Timbre	Volume	Articulation of tonic			Dramatic context	
		Progression	Dura-tion(s)	Direction(s) into iii	#4			Before	During	After	Category	Description
"Lost" (continued)												
S5, Ep8, 39:19	D	I-iii6/4-ii-V-I-iii-ii-V6/4-I (NU)	~5	Up	No	Sts., Pno.	Soft	$\hat{1}$	HM	Unis, Cad	Other loss, sentimental	Man reminisces about a woman he loved three years ago, but with whom he did not pursue a relationship; he remarks that he has gotten over her
S5, Ep10, 10:09 25 Mar '09	D	I-iii6/4-I6/4-iii	~5.5	Unis, Dn	No	Sts.	Soft	Sil→ $\hat{1}$	None	No	Other loss	A relatively tranquil domestic existence and romantic relationship is presumably ended: "It's over, isn't it?" "What?" "Us…playing house…all of it."
S5, Ep11, 38:08 1 Apr '09	D	I-iii-ii-V (4x) (NU)	~4	Up	No	Sts. (1-12), Pno. (13-16)	Soft	Sil	Est (minor, 35:02)	Cont	Other loss	Woman tearfully gives up young child to which she has been a mother for three years
S6, Ep1, 37:15 3 Feb '10	B♭	I-iii-I-iii	~8	Up	No	Pno., Sts.	Soft	Est	HM, Theme	No	Death	Woman dies, and her beloved weeps and mourns her death
S6, Ep4, 26:15 17 Feb '10	C (1-6), A (7-10)	I-iii6/4-I-iii6/4-I-iii6/4-I-iii-I-iii	~8	Unis, Dn (1-6) Up (7-10)	No	Sts.	Soft	Est, weak ($\hat{1}$ pedal in bass below non-PF chords)	Theme (7-10)	No	Death	Shot of graveyard, grave for body is dug by acquaintances of deceased, eulogy is spoken
S6, Ep14, 4 May 2010	C	I-iii-I-iii	4, 4, 4, 8	Dn	No	Sts., Hp.	Soft	Est	HM	No	Other loss	Man visits nursing home and is surprised to find another man, from whom he was hoping to obtain some answers, in a pathetic vegetable state
S6, Ep14, 35:23 4 May 2010	C	I-iii-I-iii-IV-I-IV-V-I-iii-I-iii-IV-I-IV-V	8, 10, 8, 12, 8, 8, 8, 12, 6, 4, 6, 5, 5, 5, 5, 6	Up	No	Pno. Sts.	Soft	Est	HM, Theme	Cont, Cad, 1	Death	Woman is trapped in a sinking submarine and will drown in minutes, her beloved husband cannot free her, she insists that he save himself, he remains with her, both perish
Crash (6 May 2005), dir. Paul Haggis, comp. Mark Isham												
26:22	B♭	I-iii6/4-I-iii6/4-I-iii6/4…remainder of cue dominated by M4m	3	Var.	No	Synth sts., Gls. harm., Pno.	Soft	Sil→I	HM	Cont	Other loss Sentiment	Five-year-old girl hides under bed from fears of bullets (evincing loss of innocence), father gives her a make-believe impenetrable cloak, tucks her in
26:22	G	I-iii6/4-I-iii6/4-I-iii6/4…remainder of cue dominated by M4m	2.7	Var.	No	Synth sts., Pno.	Soft	Sil→I	HM	Cont	Death Sentiment Other loss	Father is held up at gunpoint by victim enacting (misplaced) revenge, daughter runs out to protect father, shot is fired, daughter presumed mortally wounded (at climactic return of M4m), daughter is unharmed (gun contained blanks), assailant is sadly left with nothing

Example 4 continued.

Timestamp	Key	Harmony		Melody		Timbre	Volume	Articulation of tonic			Dramatic context	
		Progression	Dura-tion(s)	Direction(s) into iii	#4			Before	During	After	Category	Description
Madagascar (27 May 2005), dir. Eric Darnell and Tom McGrath, comp. Hans Zimmer												
29:42	F	I-iii6/4-vi-V7/IV (NU)	~4	Dn	No	Sts., Hp.	Soft	Sil	HM	Cont	Other loss	Lion loses sight of his friends, finds himself alone in a box on the open ocean
The Family Stone (16 Dec 2005), dir. Thomas Bezucha, comp. Michael Giacchino												
34:45	A♭	I-iii6/4-I-iii6/4-♭VII6/4-IV-I6-iii-I	4.5 (*2: 10*)	Dn	No	Hp., Pno., Sts.	Soft	$\hat{5}$	HM (*3-8*)	Sil	Death	Daughter realizes that mother has terminal breast cancer, continues to scene where son reveals to father that he knows as well
X-Men: The Last Stand (26 May 2006), dir. Brett Ratner, comp. John Powell												
50:42	C	I-iii-I-iii-IV	6.7, 6.7, 6.7, 3.3	Dn	*2*	Sts., Fl, Hn.	Medium soft	$\hat{5}$	HM	Cont	Death	[Paraplegic leader of superheroes just dies] Shot of empty wheelchair in leader's office, voice-over of beginning of eulogy, cut to funeral
51:35	F	I-iii-IV (NU)	5.5, 5.5	Dn	No	Sts.	Medium soft	ii-V7	HM, Theme	Cont	Death	Eulogy continues: "He may be gone, but his teachings live on through us."
Underdog (3 Aug 2007), dir. Frederik Du Chau, comp. Randy Edelman												
3:31	G	I-iii-I-iii-IV-V-I	~4	Up	No	Cl., Sts.	Soft	$\hat{2}$ - $\hat{3}$ - $\hat{1}$ - $\hat{5}$	HM	Cont	Other loss	Bomb-sniffing dog makes error on job, is mocked by fellow dogs, loses dignity
The Tale of Despereaux (19 Dec 2008), dir. Sam Fell and Robert Stevenhagen, comp. William Ross												
36:19	C	I-iii-I-iii-I-iii-I-iii-IV-	~2.5	Dn., Up (*5-11*)	No	Sts., Hp., Cel. (*5-11*)	Soft	Est.	HM	Cont	Other loss	Homely farm girl reflects on her hope to become a princess, which now appears to be dashed
Last Chance Harvey (16 Jan 2009), dir. Joel Hopkins, comp. Dickon Hinchliffe												
3:41	G	I-iii6/4-iii6-IV7-iii6-I	3.5	Dn	No	Gtr.	Soft	Sil	No	Sil	Other loss	Washed-up composer hears from younger co-worker that he might be losing his job
4:46	G	I-iii6/4-I-iii6/4- I-iii6/4-I-iii6/4-IV9	(*1, 2*: 4), 1.7	Dn	No	Gtr., Pno., Sts., D.B. (pz.)	Soft	Sil	HM	Cont	Other loss	Composer hears from boss that he has "no more chances" to keep his job
Up (29 May 2009), dir. Pete Docter, comp. Michael Giacchino												
1:12:48	G	I-iii6/4-I-iii6/4-I-iii6/4-IV7-V	2.6	Dn	No	Pno., Sts.	Soft	Est	HM	Cont	Death	Elderly, forlorn man stares wistfully into a beautiful picture of his deceased beloved wife
Megamind (5 Dec 2010) dir. Tom McGrath, comp. Hans Zimmer and Lorne Balfe												
26:03	G	I-iii-I-iii-vi7-IV7-I	2.5	Unis	No	Sts., Ob.	Soft	Est	HM	Cont	Death, other loss	Villain appears to mourn death of hero, then (soon after progression) female love interest eulogizes hero on the air "He was always there for us…"
28:19	F	I-iii-I-iii-IV7	2.5	Unis, then Up (*4*)	No	Sts., Chorus, Hp.	Soft	vi-II-ii-IV	HM	Cont	Death, other loss	Villain and love interest both solemnly visit fallen hero's museum: "I've made a horrible mistake…I didn't mean to destroy you…"
The Chronicles of Narnia: The Voyage of the Dawn Treader (10 Dec 2010) dir. Michael Apted, comp. David Arnold												
1:43:37	G	I-iii-I-iii-I	3 (*1-4*), 9	Up	No	Hn., Sts., Cel.	Soft	Est	HM	Cont	Other loss	Two children concede that they will never be able to return to the fantasy parallel universe that they cherish

Example 4 continued.

Timestamp	Key	Harmony		Melody		Timbre	Volume	Articulation of tonic			Dramatic context	
		Progression	Dura-tion(s)	Direction(s) into iii	#4			Before	During	After	Category	Description
John Carter (9 Mar 2012) dir. Andrew Stanton, comp. Michael Giacchino												
31:38	F	I-iii-I-iii-IV…	5	Dn	*1, 3*	Sts., Hp.	Soft	Sil→ 1̂	HM	Cont → 1̂	Other loss	Father tells his daughter that he has no choice but to betroth her to a tyrant in order to save his city
50:03	F	I-iii-I-V…	3.5	Dn	No	Sts., Hp.	Soft	V^A	HM, Theme	Cont	Death	After a battle, a teary eyed princess-warrior watches as the bodies of her dead compatriots are heaped into a pile
1:16:31	A	I-iii-I-iii-IV…	4	Dn, Up (*4*)	*1, 3*	Sts.	Soft	Est (weak), V^A	HM, Theme	Cont	Death	During a suicidal attack, a soldier reflects on the death and burial of his murdered family
1:23:59	A	I-iii-I-iii-I-iii-I-iii-I-iii-I-iii-IV-…	4.5	Dn	*9, 11*	Sts., Hp.	Soft	NS	HM, Theme (*5*)	Cont→Sil (brief)	Other loss	Princess is crestfallen when soldier and love interest tells her that he will abandon her city in imminent need
1:25:29	A	I-iii-I-iii-V-I-…	5	Dn	*1, 3*	Sts., Hp.	Soft	Sil→ 1̂	HM, Theme	Cont	Other loss	Soldier appears to have abandoned the princess and her city

Example 4 continued.

expressed with ~), so only one number is needed. In those cases where the harmonic rhythm varies, multiple numbers are given whose order corresponds to the order of the chords in the harmonic progression, or numbers in italics that refer to the ordinal location of the chord in the progression convey the chord's duration.

Since the definition of the loss gesture does not rely upon melodic features, only two aspects of each instance's melodic material are conveyed in Example 4. The "Dir." column indicates the direction of the top, or most prominent, melodic voice's movement when the departure M4m takes place: Up, Dn (for down), or Unis (for unison). Additional indications after the first in this column relay the direction of other prominent lines coincident with the harmonic change. For example, mm. 9–16 in Example 2 correspond to the second row on the first page of Example 4. The indication "Unis, Dn" in its "Direction(s) into iii" column conveys that the top line does not change (in this case, the oboe reiterates the B_5) and an inner voice descends (in this case, the flute drops from E_4 to $D\sharp_4$) when moving into the mediant triad (in mm. 11 and 15 in this case). Despite an "idealized voice leading" that would highlight the descending half step and the common tones as realized in Example 3, the many "Up"s in this column affirm the absence of a characteristic melodic direction for the loss gesture.[19] The "^$\sharp$4" column registers the presence of the raised fourth scale degree during certain I or iii chords, as well as approximate placement as indicated by ordinal position in the harmonic progression. For example, an A$\sharp$ (^$\sharp$4 in the key of E) is used above the third and fourth chords in the loss gesture starting in m. 13 of Example 2. The prevalence and implications of this chromatic enrichment will be discussed later. The timbre column provides instrumentation; again, ordinal information in included in the cases where instrumentation significantly changes over the course of the progression. While the volume column is nearly trivial, as none of these instances is relatively loud or even close to loud, it verifies the loss gesture's property of softness.

The next three columns provide documentation of whether the key of the M4m's major triad is tonicized before, during, or after the M4m component of the harmonic progression. Tonicizations beforehand can involve a clear, solid establishment of the key (Est), the start of a new section as delineated by a significant change of texture, timbre,

or tempo (NS), or the entrance of the tonic chord after silence (Sil). For instance, in Example 1, which corresponds to the first row of Example 4, the considerable change of orchestration, range, and rate of significant melodic activity at m. 16 helps to convey the A-major triad in this measure as a tonic triad, even though the preceding music does not. The opening tonic may be preceded by a dominant that either actively seeks tonic resolution (V_A) or is itself tonicized (V_T), but retrospectively assumes the role of dominant once the M4m progression commences, especially in conjunction with a NS.[20] This latter situation occurs at m. 9 in Example 2. The opening tonic may also be preceded by other harmonies (given with Roman numerals) or even single scale degrees (given with Arabic numerals) that lead toward and help define tonic harmony; the indication of "Sil→^1" or "Sil→I" means that the tonic pitch or tonic chord is first heard after silence for an extended duration before the M4m progression begins.

During the M4m, especially if the progression undulates, its harmonic rhythm is extremely slow, or ♯^4 is present, one might experience a loosening of the major triad's hold on tonic and, perhaps additionally, a sense that the mediant is tonicized to some degree. Nonetheless, other elements typically lend varying degrees of support toward the continued tonicity of the major triad. The most common support, although it is somewhat weak, comes from hypermeter (HM): when the harmonic rhythm is regular, the tonic triad, typically the first harmonic event, falls on a strong beat in a duple (hyper)metric organization, whereas the mediant triad typically falls on a weak beat. Other support for the major triad as tonic can come from a bass instrument that sounds ^5 right at the end of the mediant's span, and ^1 at the beginning of the tonic harmony (Bs5); Horner does so during all three loss gestures in Examples 1 (mm. 19 and 23) and 2 (mm. 12, 48, and 52). The melodic material above the harmonic progression can better fit the profile of the key of the major triad (PF, for position finding), and the tonic triad may be emphasized by virtue of its longer duration (Agogic). The listener may also recognize the major triad as tonic through veridical information, when the melody above the M4m is, or at least refers to, a theme that has been heard earlier in the film or television program within a tonal context that clearly selects the major triad as tonic (Theme).

Despite any tonal ambivalence experienced during the M4m that casts any preceding tonicization in doubt, loss gestures *never* tonicize the minor triad after the M4m progression, at least not to the degree that the major triad is tonicized. In most cases, the tonicization of the major triad gains reaffirmation by following the final tonic triad with silence (Sil), by continuing in the same key (Cont., as evidenced in part by the chords notated in the harmonic progression), or by cadencing in the same key (Cad.). The tonic reaffirmation might also take place through position finding (PF)—that is, using pitches outside the tonic triad that fit, or even determine, the tonicized major key signature. This ultimately means that when sufficient tonal context of the M4m is taken into account, the loss gesture and its associations with sorrow in this repertoire surprisingly reside within a major-mode context, contrary to the conventional analogy between major/minor and happy/sad in Western culture.

All of these instances coincide with the contemplation of a significant loss in the filmic narrative, as categorized and summarized in the two rightmost columns in Example 4. (Text in brackets in the final column provides preceding narrative context if needed.) The loss may involve death, either one that has already occurred or one that appears imminent due to a sudden injury or a terminal illness. The music appears to relate just as much, if not more so, to the sorrow that the past death creates (or the future death portends) in the other characters, as to the character's death itself; funeral scenes and other less formal bereavements are common. The loss may also be of something else besides life: loss of closeness to a loved one, loss of body parts or their use, loss of innocence or moral values or hope, or loss of employment or opportunity. Again, the loss gesture accompanies less often the actual incident of losing or its immediate ramifications or consequences and more often the sorrowful dwelling upon the loss.

III: EXPLANATIONS OF THE ASSOCIATION: CONVENTION

Why have so many composers associated the loss gesture with loss-invoked sorrow in recent popular movies and television? Charles Sanders Peirce's most well-known trio of terms are those names for the grounds upon which

a signifier and a signified are joined into a sign: icon (a relationship of "likeness"), index (a relationship of "causality"), and symbol (a relationship of "conventionality").[21] The first two kinds of relationship focus on the relationship's non-arbitrariness, in contrast to the last, in which symbols are arbitrary, unmotivated signs. A logical and likely less thorny place to begin answering the question above is to inquire about the association's symbolic lineage. After all, recent popular film composers commonly borrow these kinds of associations that they often employ from the vast network of cultural conventions surrounding them, particularly those residing in other contemporaneous or earlier multimedia genres. Such a discovery does not necessarily obviate an obligation to inquire about possible iconic or indexical premises for this association: "conventions are not arbitrary, in that they have generally been motivated by iconic or indexical associations, whether or not those associations still play a role in interpretation."[22] Indeed, this will be the objective of my fourth and final section. Nonetheless, asking whether or not the loss gesture has been consistently associated with a saddening loss in any musical repertoires before 1985 is an imperative prologue.

Simplifying the pursuit of at least a partial answer to this question is the fact that the major-mode diatonic mediant triad is an extremely uncommon triad in eighteenth-century music. Although this triad is a little more frequent in tonal music of the next two centuries, its unmediated surface-level alternation with the major tonic triad—the most common way for an M4m to meet the temporal requirement of the loss gesture—remains an extremely rare event. Charles Smith has made this claim for classical tonal music from this time period; the instances of M4m undulation in this repertoire of which I am aware are listed in Example 5.[23] Although my list undoubtedly falls short of completeness, I suspect that such a complete list for any listener considerably familiar with tonal repertoires would presumably be smaller than any other comparably complete I–X–I list where X is another diatonic triad, with perhaps only the supertonic triad offering any competition. Something similar may be said of I–iii–I in twentieth-century popular music. Whereas Walter Everett recognizes that alternations between I

and vi occur "in scores of songs" from rock music's heyday of 1955–69, he finds no comparable trend using I and

iii.[24]

Year	Composer	Work (Movement)	Location	Key	# of chords	Approx. duration (in seconds) of progression	Volume
1825	Schubert	"Totengrabers Heimweh," D.842	mm. 6-7 ff.	A♭	4	6	*f*
1838	Chopin	Mazurka op. 41, no. 2[1]	mm. 21-25	B	3	10	*f-p-f*
1841	**Schumann**	**Bunte Blätter, op. 99, no. 4**	**mm. 9-13**	**A**	**6**	**12**	***p (sf)***
1842	Glinka	*Ruslan and Ludmilla*, Act 2 Duettino	mm. 43-46	D	7	8	*pp*
1847	Liszt	*Ce qu'on entend sur la montagne*	mm. 683-85	A	3	4	*p*
1848	Liszt	*Les Preludes*	mm. 416-17	C	6	6	*ff*
1854	**Brahms**	**Ballade op. 10, no. 3[2]**	**mm. 113-23**	**B**	**7**	**20**	***pp-ppp***
1857	Liszt	*Hunnenschlacht*	mm. 478-82	C	7	6	*fff*
1858	**Gounod**	***Faust*, Act 2, Scene 1[3]**	**mm. 99-101**	**D♭**	**6**	**10**	***p***
1867	Verdi	*Don Carlos*, Act 3, Finale[4]	Reh. L, mm. 1-2	C	5	5	*ff*
1881	**Grieg**	**"Fyremål," op. 33, no. 12**	**mm. 63-65 ff.**	**E♭**	**3**	**6**	***p***
1883	Dvořák	*Scherzo Capriccioso*	mm. 339-41	F♯	3	2	*f*
1885	**Strauss**	**"Zueignung" op. 10, no. 1[5]**	**mm. 1-3**	**C**	**5**	**7**	***p***
1887	**Fauré**	**Requiem, "Agnus Dei"**	**mm. 42-44**	**C**	**3**	**6**	***p***
1887	Rimsky-Korsakov	*Capriccio espagnol*, iv	mm. 32-34 ff.	A	5	4	*mf*
1890	Debussy	*Suite Bergamasque*, iii "Clair de Lune"	mm. 66-69	D♭	4	3	*pp*
1893	**Beach**	**Romance, op. 23**	**mm. 114-15**	**A**	**4**	**8**	***pp***
1894	Mahler	Second Symphony, v	Reh. 10, mm. 2-3	D♭	3	4	*pp*
1895	Dvořák	Cello Concerto, i	mm. 329-31	B	5	5	*mf*
1896	Mahler	Third Symphony, i	Reh. 11, mm. 4-5	D♭	4	2	*p*
1904	Fauré	Impromptu, op. 86	mm. 202-4	D♭	5	5	*f*
1917	**Prokofiev**	**First Symphony, ii**	**mm. 66-70**	**A**	**5**	**8**	***pp***
1948	**Strauss**	***Vier letzte Lieder*, "Abendrot"**	**mm. 20-25**	**E♭**	**5**	**23**	***p***

Example 5. Some undulating M4m's in Romantic and post-Romantic music (loss gestures are in bold)

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[1] Discussed by Aldwell and Schachter (1989, 236) and cited in Smith (2000).

[2] Discussed by Smith (2000).

[3] This excerpt appears in the first scene of Act IV of Fritz Oeser's 1974 critical edition.

[4] From the five-act version.

[5] Discussed by Harrison (1994, 62) and Rings (2011, 128–29).

While all of the excerpts in Example 5 express an undulating M4m, a relatively quick harmonic pacing, loud dynamic levels, absence of legato, or some combination of these features keeps some of them from archetypically expressing loss gestures. Of those remaining loss gestures, put in bold font in Example 5, there are five with text that serve as a small testing ground for Romantic precedents of recent popular film's association between the loss gesture and sorrow. The lyrics for the Grieg excerpt bear no trace of sorrow or remorse that occasionally surfaces in the earlier songs of Grieg's Op. 33 set, and the listed moment from Gounod's *Walpurgisnacht* episode, while unsettling, lacks any overt sorrow. The words for the cited portion by Fauré—"sempiternam requiem"—certainly, even quintessentially, apply to loss, but so does much of the rest of the Requiem text; such an unmarked text-music combination hardly produces an especial association.

The two Strauss excerpts, however, are more promising. The often-performed song "Zueignung," composed in 1885 and the first song in Strauss's earliest published set of songs, opens with a two-measure piano introduction that switches between a second-inversion E-minor triad and a root-position C-major triad. Even though the E-minor triad begins the song, both the dissonant perfect fourth above the bass and the clear establishment of C major soon after the vocal entrance retrospectively substantiates the M4m label for the piano prelude.[25] Although the loss gesture effectively concludes as the voice enters, the introduction nonetheless sets the narrative and emotional stage for the opening stanza, which, in isolation, could well suit many of the dramatic situations outlined in Example 4: "Ja, du weisst es teure Seele, Dass ich fern von dir mich quale, Liebe macht die Herzen krank, habe Dank" ["Yes, you know it, dear soul, That I suffer when far from you; Love makes hearts sick; Take my thanks"]. The remaining two stanzas of this mostly strophic song lighten the mood considerably; coincidently, an M4m is never heard again in the song. Furthermore, the texts used in all eight songs of Strauss's Op. 10 generally eschew such grief-stricken preoccupations in favor of exploring the many positive dimensions of youthful love.[26] These last two points strengthen the distinctiveness of a connection between the loss gesture that opens "Zueignung" and the pondering of loss, however ephemeral.

Sixty-three years after the composition of "Zueignung," Strauss published his *Vier letzte Lieder* in 1948, of which "Abendrot" is the last. Eichendorff's text for this song, which chronicles a couple's thoughts and actions as they near death, functions autobiographically for Strauss and his wife Pauline, who in 1948 had been married for fifty-four years and were both approaching death themselves. However, the loss gesture cited in Example 5 appears to have less to do with dying and more with the recollection of times past. After a lengthy orchestral introduction, the singer enters with the words "Wir sind durch Not und Freude gegangen Hand in Hand" ["We have gone through sorrow and joy hand in hand"]. A model loss gesture—with the highest elapsed time of all the excerpts in Example 5—accompanies the words "Wir sind durch Not …" before an increase to *mf*, higher and melismatic vocal notes, and a brighter orchestration buoy the following text "… und Freude." As Timothy L. Jackson has pointed out,[27] Eichendorff's "Not" resists a simple English translation; besides its cognate "need," English writers have rendered it as "sorrow," "suffering," "pain," "trouble," or "misery," given its contrast with "joy" as two emotional poles between which the two aged and dying lovers of the text have traversed. Never again in the song is there either a loss gesture or a reference to the expressive nadir carved out by "Not," making quite distinctive this particularly suitable precursor for the associations in Example 4 that would begin to become prevalent in movie theaters around a half-century later.

Moreover, the loss gesture and its association with sorrow in "Abendrot" seems to refer back to the similar association in "Zueignung," the other song that bookends Strauss's published song output. The present-tense sufferings of the lovesick narrator from the earlier song would work well as a reference for the past-tense reflections of the aged narrators from the later song, and both loss gestures occur in the proximity of the first vocal entrance. Furthermore, it is conceivable that Strauss consciously or subconsciously devised this connection, as "Zueignung" was relatively fresh in his mind when he began to sketch "Abendrot" in 1946. He had orchestrated the song with an altered conclusion in 1940—the loss gestures in both orchestrated songs enlist rippling eighth-note string

arpeggiations—and had also been playing the piano accompaniment for vocal recitals in the 1940s. And Strauss had

no qualms about quoting himself: "Abendrot" concludes with a well-known citation of his own *Tod und Verklärung*.

It is conceivable that one or more of the film composers from Example 4 may have found conscious or

subconscious inspiration in one of the programmatic loss gestures in Example 5, or elsewhere in this repertoire.

However, this sampling suggests that there exists no clear and conspicuous convention in European art music that

could function as the antecedent for the late twentieth-century American association between the loss gesture and

the contemplation of a sorrowful loss.

IV: EXPLANATIONS OF THE ASSOCIATION: HOMOLOGY

In this case, returning to the other two aforementioned parts of Peirce's trichotomy, how does the loss gesture

engage meaning by resembling (iconic) or pointing to (indexical) something, either in society or nature, outside of

itself? Cohn's hermeneutic study of the hexatonic pole proffers an iconic argument, endeavoring to demonstrate that

the progression acquires "its signifying power not only by convention, but also in part from a homology between the

properties of uncanniness (as a reaction to expectations of how the world works) and those of the harmonic

progression (as a reaction to expectations of how triadic music goes)."[28] His solution shows that the hexatonic pole

effaces a neat distinction between consonance and dissonance: for example, in C–→E+, the harmonic context

provided by the E+ triad suggests that pitch-classes 11 and 8 form a consonant major sixth as B and G♯, but in the

tonal and voice-leading contexts of the C– triad, these pitch-classes make a dissonant diminished seventh as B and

A♭. A similar contradiction arises when considering pitch-classes 3 and 0 with the two contexts swapped against the

two triads. Cohn likens this musical duplicity to the uncanny, which can efface a neat distinction between life and

death.

Before proposing a corresponding hypothesis for the loss gesture's association, it is crucially important to evaluate the process of asserting a homology, although this will necessitate a prolonged excursus. Although several angles call for critical scrutiny—such as the problem of defining "resemblance" or "likeness," which is addressed head-on by Naomi Cumming[29]—I will limit myself to a pair of questions—dually related—that should be asked of any proposed homology, questions that I will ask of both Cohn's and my own.

1. *May another kind of homology be proposed for the same music-image pairing?* This seems, at the least, proper; a hypothesized homology is much like a musical analysis, in that its proposal should not *ipso facto* exclude others of its kind on the same exact subject. Nicholas Cook has recognized that different societies or individual artists or analysts can select different "attributes" of an object that form the basis for the meaning that emerges for that object.[30] He exemplifies this point through the juxtaposition of two expressive readings of m. 301 and the following measures in the first movement of Beethoven's Ninth Symphony: while the musical attributes of "arrhythmic accents," "thematic absence," "avoidance of cadence," and "formal demands" connect with the image of a sexual murderer in Susan McClary's interpretation, the musical attributes of "timbre/inversion/mode," "fortissimo," "basses, timpani," and "sustained texture" connect with the images of catastrophe or war in others' interpretations.[31]

Yet, even if *both* members of the associative pair remain fixed, Cook's notion of different attributes participating in different homologies used by different interpreters still appertains, and would in fact help to understand the transfer of certain conventionalized associations from one person or society to the next, as in some of film music's apparent debts to the associations from the previous centuries' musical multimedia. Put another way, even if the iconic resemblance that catalyzes a symbolic convention passes into obscurity, a different resemblance more appropriate to current sociocultural circumstances could pick up the mantle of motivation, buttressing a convention that is still thriving or restarting a convention that has become dormant. Even for the same person or the

same society, multiple homologies for one associative pair undoubtedly strengthen the bond and offer a redundancy that better ensures significance.

For example, Cohn has observed that between two undoubled, complete consonant triads, contrary motion under idealized voice leading "arises only between triads whose roots are related by major third," in particular between a triad and its T_4 and T_8 transpositions and its hexatonic pole.[32] One could preserve Cohn's limitation to idealized voice leading, but turn around the rest of his observation to serve another homology for the hexatonic pole's association with the uncanny. There are exactly two set classes of cardinality 3 or higher (excluding multisets)—3–11[037] and 3–12[048]—whose members contain no dissonant interval classes: that is, no minor seconds, major seconds, or tritones. There are exactly six ways to move three notes either up or down by semitone such that contrary motion is present. If these three notes constitute either a [037] or a [048], then odds are that at least one dissonant interval will result from this collective motion: of the twelve possibilities (2 set types × 6 voice-leading designs), only one—the hexatonic-pole progression—does not produce a dissonance. In other words, if a "chord" may be defined as containing three or more different pitch classes, then a chord without dissonance typically becomes a chord with dissonance when all three of its members move both semitonally and contrary to at least one other move. The hexatonic-pole progression, however, uniquely breaks this rule: what should be dissonant under these conditions is still, somehow, consonant. At this point, one can reasonably merge this line of reasoning with the rest of the argument behind Cohn's original homology.

In part, I propose this second homology for the hexatonic pole's association with the uncanny as a parallel model for my expectation that someone else may propose another homology besides mine for the loss gesture's association with the contemplation of a sorrowful loss. I invite such proposals; as suggested earlier, multiple homologies may help one to understand how an association can accommodate variances either in the particular musical or narrative realization, or in the perspective of the individual interpreter or society, and still achieve some degree of intersubjective agreement that transcends convention. In the paragraphs below, I attempt to anticipate such

multiplicity by submitting five different homologies for the loss gesture's association—an overdetermined reading of the association. Yet not all of these homologies—or any set of homologies, for that matter—should be equally persuasive, a fact that my second question partially addresses.

2. *May the same kind of homology be proposed for another music-image pairing, particularly where either the original music or image is replaced with another?* This is not the same thing as what film music scholarship calls a "commutation test," in which, for example, the music for a cinematic scene is replaced by other music and the new audiovisual amalgam is analyzed.[33] If, paraphrasing Cook, this new music and the old images give meaning to one another during such a test, it may very well owe this significance to a new homology. Rather, I am probing the situation in which the old homology works just as well after such a substitution. Consider once again Cohn's approach from his 2004 article, in which the hexatonic-pole progression's voice-leading content stipulates dissonance for the nine-semitone interval, whereas the same progression's harmonic content stipulates consonance for the same interval; this duplicity then undergirds his homology. More recently he has acknowledged that other progressions—from a triad to either its T_4 or its T_8 transposition—evince this same duplicity.[34] On the one hand, this inclusivity can help to explain why T_4 and T_8 triadic progressions have been associated with things magical, strange, and otherworldly. On the other hand, this broadening diffuses the non-arbitrariness of Cohn's original homology, sullying the homology's explanation of a specific connection between the hexatonic pole and the more precise *unheimlich* commixture of life and death. As David Huron puts it, "one needs to discern whether the description offered succeeds in distinguishing the object of interest from other similar objects."[35] In fact, if both one- and two-semitone voice-leading intervals are reckoned as diatonic seconds, then seven other progressions create comparable consonance-dissonance discrepancies through idealized voice leading in addition to the three progressions discussed above. (Retrogrades or inversions of these progressions would result in the same disparities.) Example 6 depicts these ten progressions; when the idealized voice leading between the half-note chords is reckoned entirely diatonically, the second half-note chord must be respelled (provided in quarter notes) to resemble a consonant triad.

Example 6. Contradictions between diatonic harmony and diatonic idealized voice leading in ten non-equivalent progressions

Example 7. Contradictions between diatonic harmony and diatonic voice leading in the six bijective voice leadings of the hexatonic pole
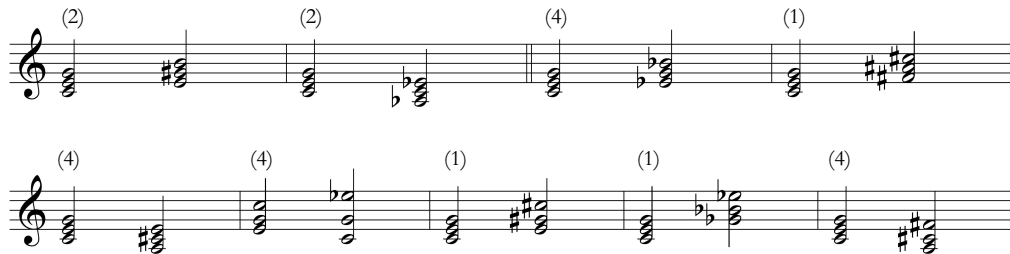
Example 8. One reconciliation between diatonic harmony and diatonic, but not idealized, voice leading for each of the last nine progressions from Example 6 (the total number of possible reconciliations for each progression is shown in parentheses)

I see two ways to reinforce Cohn's original homology. First, perhaps one or more of these other progressions has also been consistently associated with the liminal space between life and death. For example, before the SLIDE (e.g., C+↔C♯–) progression became more commonplace and semiotically generalized in Hollywood film scoring starting around 2000, composer James Newton Howard synchronized SLIDEs with narrative moments in two films that bring life and death into uncomfortably close quarters: *Outbreak* (1995)—humans dealing with lethal pathogens—and *The Sixth Sense* (1999)—the presence of ghosts. Second, while the idealized voice leading of multiple progressions can lead to contradictions between diatonic voice leading and diatonic harmonies, only one progression—the hexatonic pole—creates such contradictions for *all six* of its bijective voice leadings, as shown in Example 7, in which the notated registral ordering prescribes voice-leading mappings. With the twenty-three other triadic progressions, there exists at least one bijective voice-leading solution, however far it is abstracted away from

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the musical surface, that reconciles the diatonicism of the horizontal and vertical dimensions, if an augmented fourth or diminished fifth is allowed as a diatonic interval. Example 8 provides one such voice leading for each of the last nine progressions in Example 6. Only the hexatonic-pole progression defies even far-fetched rationalizations to some two-dimensional diatonic network, just as evocation of the uncanny can be argued to be distinct from far-fetched appeals to magic, exoticism, or other forms of the unknown.

These suggested addenda to Cohn's homology foreground the proposition that, in Saussure's famous words, "in language there are only differences," and "the idea or phonic substance that a sign contains is of less importance than the other signs that surround it."[36] For Hatten, markedness provides this "surrounding" on both sides of the significance equation: his iconic homology emerges through analogy, mapping and "lining up" a marked/unmarked musical pair such as major/minor with a marked/unmarked expressive pair such as nontragic/tragic. The homology between minor and tragic relies upon the differences between minor and major, and between tragic and nontragic. But difference need not be only binary and oppositional. For the investigation of meaning in pantriadic music, a set of progression classes (such as the forty-six non-trivial MnMs) can provide this "surrounding" on at least the musical side of the equation. Likewise, many theories of emotional or narrative classification use multi-dimensional spaces that may include, but still exceed, dichotomous categorization. Therefore, the less one of the homologies proposed below works just as well for other MnMs beside M4m, or the less one of the homologies proposed below works just as well for other emotional depictions besides those of loss-induced sadness, the more I will champion it.

In fact, the recognition of the role of difference in the emergence of the sorrowful association with the loss gesture in general, and with M4m in particular, may help to explain why the M4m did not assume such a consistency of any association until the late twentieth century. When Carl Dahlhaus writes of the "individualization of harmony" in the music of Wagner, Liszt, and Brahms, he is identifying "single chords or unusual harmonic progressions" that rival leitmotivs in their ability to be associated with a certain character, place, or narrative state.[37] But, for most readers of Dahlhaus familiar with this repertoire, "unusual" certainly means not only "rare," but

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probably also evokes the more specific "chromatic," such as Wagner's "Tarnhelm." This is certainly true for mainstream American film music before 1985: MnMs set aside for expressive functions—M6M for space, m8m for evil, and so forth—tend to be chromatic. As certain MnM associations age and ossify owing to a popular art form's propensity toward cliché, I speculate that some film composers who use the pantriadic Romantic style tend to keep one ear open for different sounds within the space of forty-eight MnMs that are nonetheless still distinctive and thus suited for significance. The protracted, and especially the undulatory, M4m may be diatonic, but, in both concert halls of the 1880s and movie theatres in the 1980s, it was just as rare, if not more so, than many of its chromatic counterparts made to protract and undulate, and thus made for a good foundation for a new significant musical gesture.

But why couple this gesture with loss-induced sadness? My various endeavors to provide answers to this question in the five homologies that follow will focus primarily on the important M4m feature of the loss gesture. Certainly the non-M4m features of the loss gesture itself support homologous relations with its narrative correlate. These features include not only such expected qualities as its slow tempo, deliberate harmonic rhythm, low volume, and gentle timbres, but also its more peculiar undulatory quality, which could be interpreted as consolatory in its rocking, psychologically imprisoning in its stasis, and/or spiritually transcendent in its cyclicity. In fact, given an exemplary loss gesture, one could substitute for M4m any one of a good number of the other forty-five non-trivial MnMs and the music could still be appropriate for a sad scene. But, of the forty-six non-trivial MnMs, why has M4m been apparently singled out as the most appropriate? In at least my experience with recent popular film music, the correlation between a protracted M4m—relative to the remaining forty-five non-trivial MnMs—and the reflection upon a sorrowful loss—relative to other emotional states and narrative situations of the same degree of specificity—is too distinctive to settle for a satisfactory explanation that does not work for M4m alone. Put another way, I know of no "ersatz loss gesture"—a gesture with all of the loss gesture's non-M4m features but with another MnM substituting for M4m—that is associated nearly as often with depictions of loss in this genre as much as the

original loss gesture is. Therefore, the five homologies below will concentrate on the M4m feature of the loss gesture.

First, the scarcity of the mediant triad in general and the undulating M4m in particular, reviewed earlier, could be used to argue for the motivation of the association: as the mediant triad or the undulating M4m is rare in tonal music, so the instances of traumatic loss that it accompanies are (mercifully) rare in the real world that these conventional narratives reflect. However, such narratives may include a wide variety of rare events, not only those involving loss or sorrow; such an argument cannot make a distinction.

Second, the loss gesture foregrounds the stark contrast between major and minor sonorities, just as the moments of loss they underscore accentuate the stark contrast between the delight of possessing something cherished and the tragedy of its removal. The presence of $\sharp\hat{4}$, while ultimately a microtonicization of the mediant due to the loss gesture's overarching major mode, intensifies the contrast, for the conflict plays out both between triadic harmonies and between implied scalar modes. However, twenty-four of the forty-six non-trivial MnMs pit major triad against minor triad, so an explanation based on major-minor contrast cannot say why the M4m in particular is set apart to accompany such scenes of reflecting upon loss. To be sure, among these twenty-four, it is significant that M4m is one of only ten that takes place within a diatonic scale, untouched by chromatic alienation; likewise, it is significant that some of these scenes of loss take place within a ordinary setting where the loss, as well as the coping with the loss, seem "natural." Yet this argument still underdetermines the exact harmonic features of the gesture: why could not the loss gesture depend just as well upon M2m or M9m, which are equally diatonic?

A third homology recognizes that, in tonal music, an initiating progression from a major tonic triad to a minor mediant triad typically continues to a subdominant or submediant triad, rather than returning via undulation to the tonic triad. One could argue within an expectancy framework that, just as the return to I denies the normative progression from iii to IV or vi, the sorrowful moment denies the sweetness and pleasantries of a more general sentimentality with which a slow I–iii–IV… is often associated in popular music and film music. The progression is

thus disrupted and short-circuited: appropriate musical analogies for the intrusion of a painful, often senseless, loss into an otherwise normal life. While this explanation is attractive, it founders on two significant points. First, the normative continuations for a number of different chord progressions could be thwarted: why is it that I–iii has been singled out to be associated with the loss gesture? Second, the loss gesture's ability to convey poignancy seems to manifest itself sufficiently before another chord—*any* other chord—follows the I–iii progression.

A fourth homology involves the voice leading of the M4m. Apart from interests in its expressive qualities, this progression—or, more generally, the L progression—has garnered special interest in recent years because it is "maximally smooth": the symmetric difference between the two chords, considered as pitch-class sets, is a member of set-class 2–1[01].[38] It is ironic that, from this perspective, a progression that is incredibly moving hardly moves at all! This structure of minimal change might be argued, in conjunction with the second explanation above, to match some of the narratives from Example 4 that particularly involve, for example, gun-related deaths: as the minimal physical effort of the squeezing of a trigger directly wreaks a disproportionally tragic loss of life, a mere half-step voice leading transforms a major triad—made the baseline courtesy of the tonicization—into a minor triad. The same may be said, of course, of a departure M0m: the progression from a tonic triad in an established major-mode key to the tonic triad of its parallel minor. This musical darkening has a time-honored association with extra-musical darkening; perhaps today's M4m is a latter-day M0m. But even if affect could somehow transfer along the lines of voice-leading equivalence, the change of mode that the departure M0m synecdochically implies may accompany, at least in recent popular film, any one of a number of negatively valenced emotions or many kinds of worsening situations. M4m seems to be particularly affiliated with an intense loss and the sorrow that comes from dwelling on this loss. Moreover, other excerpts from Example 4, in which the loss in the narrative transpires due to considerable, instead of minimal, effort, complicate a metaphorical link with voice-leading smoothness. Lastly, even if one allows this link—that a minute voice-leading change from a major triad to a minor triad well associates with loss—then why is not M9m (I–vi) at least partially represented? Granted, its symmetrical difference is a whole step, not a half

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step, but it is still a step. Yet I know of not a single undulating or protracted M9m in recent popular film music that accompanies a loss like those surveyed in Example 4, even though this explanation, tempered by the slight difference of degree between the M4m's and M9m's idealized voice leading, would predict such an association.

From another perspective, however, M4m and M9m differ in kind. If the tonicized major triad serves as the starting reference point, then the idealized voice leading of the departure M4m involves one voice moving down by step, whereas the same for the departure M9m involves one voice moving up by step. This perspective takes this inquiry into territory that has been well charted by philosophers of music. The emotion of sadness figures prominently in Peter Kivy's claim, made over thirty years ago, regarding the association between certain emotions and certain musical structures. His "physiognomy of musical expression" theory essentially claims that we associate an emotion with a musical utterance because the musical utterance resembles human utterances associated with the same emotion.[39] When the melody moves slowly and droops down, listeners liken this to vocal or gestural expressions of sadness that behave in a similar manner; parallel arguments are used for joy and other emotions. The "physiognomy" component stems from Kivy's analogue to the sad face of a St. Bernard: we associate sadness with the St. Bernard's face because the St. Bernard face resembles (human) faces that are associated with sadness. Stephen Davies offered much the same idea in an article published around the same time as Kivy's book and then elaborated upon it in a book five years later.[40]

This theory, which also acquired the designations of "contour theory" or "resemblance theory," garnered support from other philosophers and theorists. Malcolm Budd and Paul Boghossian have generally endorsed it, Aaron Ridley's "melismas" essentially followed its suit, and even several of Robert Hatten's gestures, such as "lift" or "shrug off," acquire their extra-musical significance through a similar process.[41] However, contour theory falls short in explaining the emotional expressivity of harmonic progression. Kivy acknowledged this to some degree when he first presented the physiognomy theory in 1980, as he admitted that the vertical minor third bears no more resemblance to grief-expressing behavior than the vertical major third. And yet, he has more recently (and fancifully,

by his own admission) suggested that we "hear the vertical structure of chords as a kind of contour," so that the lowering of the major third to a minor third above, say, C creates "a kind of sagging, or sinking, depressingly from E to E flat."[42] If this argument is permitted, then the similar lowering of a half step that occurs in the idealized voice leading of the loss gesture (such as the C to B in Example 3) could also be considered to create a similar depressing slump. It is, at the least, serendipitous that I–i (the departure M0m) and I–iii (the departure M4m) have the same progression of chord quality (major triad to minor triad), the same idealized voice leading (two voices do not move, one voice descends by semitone), and similar extra-musical associations with sadness or tragedy in their own well-defined repertoires, albeit the second much more circumscribed and recent than the first.

But I suspect it is at the *most* serendipitous. First, an understanding of the significance of the minor mode, and that of its tonic minor triad, does not require an immediate juxtaposition with the parallel major mode and its tonic minor triad. In other words, although the temporal experience of sagging created by this immediate juxtaposition might certainly add to the effect, the sagging is not necessary to a culturally suitable interpretation of the associations of a musical passage in the minor mode, which seems more dependent upon paradigmatic rather than syntagmatic relations. In this light, Kivy's description of sagging actually better suits the experience of the departure M4m: it is not merely the occurrence of a iii chord in a major-mode context, but it is I–iii in particular that enjoys the association with sorrow in contemporary film music. One could hear the semitone drop in its idealized voice leading as an appropriately despondent musical "sigh"—but somewhat unusual for this well-worn gesture as both notes of the sigh boast triadic membership.

Second, Kivy's contour interpretation of the major-minor shift moves the homological mapping away from using the well-oriented and thus clearer linear space of registral pitch and pushes it toward using the unorientable and thus murkier quotient space of pitch class. What of the progression from a relatively low C-major triad to a relatively high C-minor triad? And what of all the instances in Example 4 with an "Up" in the melodic direction column? Is there still a sagging quality to either of these kinds of progression, even though the primary motion *rises*

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through registral pitch space? If we persist with an answer of "yes," because the idealized voice leading, although not manifested, uses only descending motions, then this strategy weakens the explanatory power of the contour theory so much—odds are, either the registral motion or the idealized voice leading will go the way you want—as to render it insignificant and essentially useless. If we instead answer "no," then the contour theory's account of musical expression remains viable—in as far as it goes—but we must concede that the expressiveness of musical utterances that are defined solely in pitch-class space, of which M4m is clearly one, cannot be satisfactorily explained using contour theory.

This is essentially the same conclusion to which philosopher Geoffrey Madell, as part of his critique of Kivy's theory of musical expressiveness, arrives: "in introducing the element of harmony we introduce something which really does not have any parallel to human behaviour."[43] This statement is certainly valid with respect to contour theory; one needs the linearity of registral space in order to engage the VERTICALITY image schema, which, paired with the flow of time, permits structural resemblances between musical motions and human motions, yet harmonic motion defined solely in pitch-class space perplexes the use of the VERTICALITY image schema. But there are other schemata that can metaphorically, or cross-domain, map to a chain of musical events, even those events confined to the province of pitch class, to behaviors and experiences in our everyday lives.[44] The following account, which functions as my fifth and final homology, proposes one such metaphorical mapping.

The loss gesture typically opens with a soft tonic major triad that lasts around four seconds. Although one experiences the acoustic presence of three different pitch classes within this triad, these three pitch classes are not equal constituents of the chord. Rather, the root is the triad's representative member, the one pitch class of the three with which the listener most identifies when conceiving of the chord as a pitch-class collection. Thus, the root is the chord's essence; in the centuries-old, synopsizing terms of the *basse fondamentale* and the Roman numeral, the chord "is" what pitch class the root belongs to (e.g. "it is a C chord"). In contrast, the third and fifth incarnate the root and flesh out the chord; they are nominalized by the root—thus they are typically labeled by intervals above the

root, instead of assuming individual names—while simultaneously enhancing the root, boosting its overtones, augmenting its acoustic traces. The metaphorical overlay from the biological and generative meanings of the word "root," while not an exact fit, easily brings this asymmetry to bear on the imagination. The fact that this root is also the tonic pitch class increases even further its value as a point of orientation and intention.[45]

When this major tonic triad continues to a minor triad with a root on the mediant, something special happens: this progression takes away the root-*cum*-tonic pitch class, the essence of the opening major triad and the emblem of the diatonic tonal space, but leaves intact the remaining two members of the tonic triad, this chord's flesh, the root's manifestation. Granted, if the progression is swift, the extraction of the root is scarcely felt, if at all. But in slow music, each chord eventually becomes its own musical event, facilitating a deliberate contemplation of the root's extraction as the departure M4m takes place. Hence, the temporal component of the loss gesture provides not only a likeness with the slow gestural and bodily motions associated with sadness, but also an opportunity to dwell on each harmony and the differences between adjacent harmonies.

Certainly, any one of a multiple number of chords—ii, V, or vii°, in addition to iii—could follow the tonic triad and also arrest the sounding presence of the tonic triad's root and the key's tonic. Yet, in the immediate context of the tonic major triad, what the mediant minor triad invokes that these others do not is the sense of a void; one cannot have a hole without having something in which to have the hole. By leaving the third and the fifth to linger as the unmarked ground, the root's absence as the marked figure gains a genuine, emphatic status. And simply removing the root and leaving the third-fifth dyad is not sufficient; by residing in the mediant triad, the leading tone may be stripped of some of its familiar tension, but it plays the important supplanting role of "not tonic." By contrast, the progression I–V makes the marked difference one of preservation instead of absence: only the fifth of the tonic triad lingers. And a progression that maintains no common pitch classes, such as I–ii or I–vii°, erases the sense that the second chord is some chord-tone transformation of the first chord. This obliterates any dichotomy between tones lost and tones kept, which is crucial to the contrastive significance of chord-tone loss.

A common part-writing rule advises one, *ceteris paribus*, to maintain as many chord tones as possible as triads progress on the surface: as Cohn puts it, "maximisation of common tones … [is one of] the most characteristic features of our musical tradition."[46] One may also attend to *which* triadic tones are kept in common in a progression. A revised rule might read as follows: "Keep as many common tones as you can, but the more common tones you keep, the more important it is that one of them be the root." Instead of placing all instances of L, P and R transformations equally into the same privileged category "whose defining feature is double common-tone retention,"[47] this revised rule teases apart instances of L, P and R triadic progressions, as well as other progressions, according to *root* retention. This sub-categorization may shed light on certain conventions of surface-level harmonic progression in tonal music. For example, while double common-tone retention alone would encourage diatonic root motion by third in either direction, my revised rule would encourage only descending-third diatonic root motion and discourage its inverse, which corresponds to how triads tend to behave in tonal music. This revised rule would also suggest a weaker bias between the two root motions by fifth—descending-fifth root motions would be preferred over ascending-fifth root motions—which corresponds well with recent studies.[48] Thus, the out-of-time preference among triadic members (root or not-root) can be argued to translate into an in-time preference between the two directions (up or down) of certain root progressions.

My present interest, however, is more in semantics rather than in syntax. Moments of loss in contemporary popular films as those collected in Example 4 tend not to be associated with a protracted or undulating progression of I–vi (departure M9m) as with that of I–iii (departure M4m), although both are diatonic root motions by third. The same can be said when comparing i–VI (m8M, M4m's tonal inverse) with I–iii, although both are L transformations. The difference may be accounted for by considering what happens to the root: in I–vi and i–VI, the root is maintained, but in I–iii, the root, which is the most significant and fundamental component of the triad, is lost. And I propose that this loss can homologously resonate with the significant and fundamental loss that underlies the sorrow that is portrayed in each of the various filmic excerpts listed in Example 4. Furthermore, the homological

correspondence strengthens with the observation that just as the listener of the loss gesture is left with vestiges of the lost triadic root (the third and fifth), characters in these particular scenes are left, often painfully, with vestiges of that which is lost, such as a dead or dying body, or a less extreme form of body without spirit (like paralyzed legs), or a fond memory, picture, or verbal representation. In both musical and narrative cases, although these traces of the lost one remain behind, the essence of what these traces were tied to, what served as their source, is (or will be) gone—uprooted.

Now, when a minor tonic triad progresses to a major mediant triad: i–III (a departure m3M), one creates the same musical situation: the root is lost, and the third and fifth remain behind. In this case, however, the loss of root coincides with a change in chord quality from minor to major. If one ascribes to this shift a microcosmic version of *per aspera ad astra*, then the loss of root would be synchronized with a momentary musical heartening, which would make little sense as a match for the saddening losses surveyed in Example 4. Therefore, a combination of the second homology—the major-to-minor transformation as generally unfavorable—and this fifth and final homology—loss of root-*cum*-tonic as loss of something dear—singles out the departure M4m from all the possible ordered MnMs as particularly appropriate harmonic and tonal material for a loss gesture.

What happens in the next few seconds is crucial to how this musical loss is interpreted. I propose that a mediant triad that lasts at least one second has enough time to create a perceptible experience of a darkening loss of root-*cum*-tonic as described above. However, as insinuated in my third homology, an immediately subsequent move to the expected subdominant or submediant triad can significantly mitigate the experience of root-tonic loss, because this unusual local relationship is overshadowed by the mediant triad's service of a usual global purpose: most often, the harmonization of an upper voice's moderately paced $\hat{8}$–$\hat{7}$–$\hat{6}$. Crossing between domains, this musical progression well matches sentimentality: the fleeting loss stirs, but then is folded into, a broader and more neutral mix of emotions. But when the third normalizing triad comes late, this mitigation proportionally loses efficacy, and if instead the progression undulates, returning to the tonic triad, a gesture appropriate for sentimentality is declined

and the composer reloads and fires at least one more departure M4m: in only one instance in Example 4 is I–iii–I not

followed by another iii. The undulation forces its departure M4ms into the limelight and onto a certain listener who

attends to the retention and turnover of a triad's variegated membership—a listener who, like the characters in the

moment this music accompanies, is left alone with the contemplation of a considerable loss.

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[1]Lehman (2013) examines the score and narrative of another Howard/Horner collaboration, *A Beautiful Mind*.

[2]Cohn (2004). Progressions such as C– to E+ were first designated as hexatonic poles in Cohn (1996), and their associations with the uncanny in Wagner's *Parsifal* are explored in more detail in Cohn (2006).

In the present article, the roots of triads are followed by a + or – sign to indicate major and minor quality, respectively.

[3]Murphy (2006).

[4]Bribitzer-Stull (2012).

[5]Gjerdingen (2007).

[6]Hatten (2004, 93–95).

[7]Hatten (2004, 94).

[8]Hatten (1994, 44ff.).

[9]Murphy (2014) further explores both a syntax and semantics of the "MnM" system as applied to recent popular film music.

[10]This labeling system bears a significant resemblance to that used by Clough (1957). I thank Daniel Goldschmidt for recognizing this connection.

[11]The dichotomy of "position finding" versus "position asserting" comes from Harrison (1994), and the role of key profiles in position finding has been recently examined in Temperley (2001, 2007), among other places.

[12]Riemann (1880, 22–23). Lewin (1987) abbreviated *Leittonwechsel* to LT, then Hyer (1995) shorted the label further to the now-standard L.

[13]Smith (2001).

[14]Capuzzo (2004, 196).

[15]Lewin (1987 and 1992).

[16]Bribitzer-Stull (2012).

[17]Frank Lehman brought the example from *Hook* to my attention.

[18]Bordwell (2006).

[19]"Idealized voice leading" is Richard Cohn's (2012, 6) reformulation of David Lewin's "maximally close voice leading" (1998, 17), which is the voice leading that minimizes voice-leading work when connecting notes of each chord one-to-one.

[20]V_A and V_T are borrowed from Hepokoski and Darcy (2006, 16 and 19).

[21]Cumming (2000, 86–95) offers a relatively recent and perspicacious summary of these terms for the musically inclined reader.

[22]Hatten (1994, 259).

[23]Smith (2001).

[24]Everett (2009, 220) is the source for the claim regarding I and vi; my personal communication with Everett on 12 November 2009 is the source for the claim regarding I and iii.

[25]Harrison (1994, 63) and Rings (2011, 128) both hear this opening in C major.

[26]This is consistent with Gorrell (1993, 328).

[27]Jackson (1992, 95).

[28]Cohn (2004, 286).

[29]Cumming (2000, 87–89).

[30]Cook (2001, 178ff.).

[31] Among various interpretations of this movement, Cook (2001, 181) cites Donald Francis Tovey's "heavens on fire" from the 1930s, Basil Lam's "flame of incandescent terror" from 1966, and Robert Simpson's "sky … blazing from horizon to horizon" from 1970. He argues that the last two writers, both British musicians born in the first two decades of the twentieth century, could not have conceived of their readings without stirring up memories of the ravaging Battle of Britain that preceded them.

[32]Cohn (2012, 24).

[33]Gorbman (1987), Neumeyer (1993), and Buhler, Neumeyer, and Deemer (2010) describe and make use of commutation tests.

[34]Cohn (2012, 22).

[35]Huron (2001, 62).

[36]Saussure (1959, 120).

[37]Dahlhaus (1980, 73).

[38]Cohn (1996).

[39]Kivy (1980, 51ff.).

[40]Davies (1980, 1994).

[41] Budd (1995), Boghassian (2007), Ridley (1995), and Hatten (2004). Matravers (2010), however, considers Budd's work apart from other resemblance theorists.

[42] Kivy (2002, 44).

[43] Madell (2002, 13).

[44] My invocation, although informal, of image schemata, cross-domain mapping, and conceptual metaphors and their application to music draws upon scholarship such as Zbikowski (2002) and Spitzer (2004).

[45] The fact that roots and tonics are, as Tymoczko (2011, 169) describes them, "music-theoretic cousins, sharing a number of physiognomic characteristics while being of distinct parentage" is important to recognize here. Rings (2011, 107) makes a similar point.

[46] Cohn (1996, 15).

[47] Cohn (1997, 1).

[48] Tymoczko's (2011, 227) third-based geometric model for harmonic syntax elegantly accounts for the rule that "descending thirds and fifths are more often permissible than ascending thirds and fifths." However, his book offers no explanation for this bias.