



Radiohead's "Pyramid Song": Ambiguity, Rhythm, and Participation

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KEYWORDS: rhythm, meter, ambiguity, audience participation, internet, Radiohead, "Pyramid Song"

ABSTRACT: This article demonstrates how the confluence of ambiguity and rhythm in a pop/rock song creates a powerful force for audience participation. Focusing on Radiohead's "Pyramid Song" (2001) as a case study, I document in detail the myriad ways listening audiences have made sense of its meter and how this knowledge has informed their interpretations of compositional intent. I conclude with further thoughts on the roles and possibilities of ambiguity and the directions it points towards mass participation and collaborative problem solving in the realms of aesthetics and music theory.

Received July 2012

Is communication something made clear?
What is communication?
Music, what does it communicate?
Is what's clear to me clear to you? (Cage 1973, 41)

Ambiguity begets participation. (Levitin 2009, 26)

Introduction

[1] I first heard Radiohead perform live on August 19, 2008 at the University of British Columbia's Thunderbird Arena. I hadn't purchased a ticket; unfamiliar with their music at the time (minus the ubiquitous "Creep" due to heavy radio play) but encouraged to attend by numerous friends, students, and professional colleagues, I wandered out into the rain from my university apartment only three blocks away and stood, umbrella in hand, for the full duration of the show just outside of the northern wing of the arena. I was in good company—a large group of students, families with children, and tourists had similarly amassed for the free musical strains—and in spite of the bad weather and bass-heavy sound making its way over the stands, I was intrigued enough to purchase their entire oeuvre on CD and begin to work through their songs, one at a

time. ⁽¹⁾

[2] I made the decision early on to tackle their albums in chronological order, listening to each one a minimum of three times (and at different times of the day), without any reference to guides or record reviews, before moving on to the next. And so it took me a while to make it to their fifth full-length studio release, *Amnesiac* (2001). I had already noticed up to that point that Radiohead was fond of metrical shifts and other interesting rhythmic constructions, but when I came to the second track on the CD, titled “Pyramid Song,” I was completely baffled as to what the song’s underlying meter could be. With an opening that featured just a series of sustained piano chords with no drum beat or discernable regular pulse, it would take repeated listenings to begin to come up with my own rhythmic understanding.

[3] Feeling energized by such activity, and full of curiosity as to how others might interpret the meter, I went to the web to search out potential fellow lovers of rhythmic ambiguity, albeit with only modest expectations for what I would find. What I stumbled upon was simply astonishing: a large and rich body of material directly addressing rhythm in “Pyramid Song” that spanned dozens of web sites and hundreds of individual entries over roughly a five-year period. As an ethnomusicologist and reader of the cultural studies and sociology literature, it didn’t surprise me to find a fan base that was actively engaged in listening and constructing musical-social meaning—including online criticism and the sharing of playlists, photographs, and videos—rather than a body of passive consumers (Crafts et al. 1993; DeNora 2000; Hubbs 2008; Kot 2009). What I wasn’t quite prepared for, however, was the role that creative listening with attention paid specifically to metrical complexity played in the formation of such meaning, even among listeners with little formal music training.

[4] The central task of this article will be to demonstrate how the confluence of ambiguity and rhythm in a pop/rock song creates a powerful force for audience participation. As is shown in the opening epigraph, music is predicated on ambiguity in its lack of one-to-one correspondence to language, emotions, and tangible objects of human experience. Numerous writers have shown how ambiguity—understood in its full sense of encompassing uncertainty/opacity, two or more possible meanings and/or interpretations, and the blurring of boundaries—feeds our imaginative and interpretive engagement (Bernstein 1976; Copland 1980, 7; Thomson 1983; Cook 1990, 14; Cross and Morley 2009, 69).⁽²⁾ Pop/rock music more specifically has often played upon vagueness and/or multiple possibilities to great critical and commercial success; it is easy to recall examples of such ambiguity with regard to race and vocal timbre (Elvis, Chuck Berry), gender (Michael Jackson, Boy George, Prince, kd lang), and even species (David Bowie/Ziggy Stardust, Lady Gaga/various human-alien hybrids). In all cases, such lack of concrete references—visual, lyrical, musical—allows a fertile space for active listeners to personalize the experience in ways that are deeply and complexly emotional, intellectual, and spiritual. ⁽³⁾

[5] Rhythm, as has been amply documented across numerous disciplinary fields, is a fundamental aspect of music and its appreciation. ⁽⁴⁾ Meter in particular plays an essential role in our ongoing and real-time perceptual organization of music, with research demonstrating how the average listener attempts to impose a meter on whatever he or she hears (Povel and Essens 1985; Temperley 2001, 24, 205–6). Knowledge of this foundational structure—including what the beat of a song is and how to predict its recurrence—is a key ingredient in creating (positive) musical emotions, with our human concern or preoccupation with seeking out a regular pulse in musical sound most likely based on an evolutionary adaptation (Levitin 2006, 168–9, 171–80; Patel 2006; Sacks 2007, 240). In the context of the typical pop/rock song, it is the beginning or intro that creates that pregnant moment when listeners attempt to engage in the groove, to be rewarded by the “promise of entrainment” (London n.d., 10). Through an understood meter glimpses of forthcoming timbres, textures, chord progressions, and melodic fragments unfold, with the more “successful” (i.e., innovative or creative) intros “conceal[ing] enough to stimulate the appetite without blunting it” (Hennion 1983, 165). As this article will show, in the case of “Pyramid Song” where the meter itself is withheld, many listeners went the extra mile to search it out, adding additional layers of meaning and personal investment.

[6] Rhythmic ambiguity draws its power from connections between emotions and expectations buried deep in human evolutionary history. As David Huron observes:

Emotions are motivational amplifiers. Emotions encourage organisms to pursue behaviors that are normally adaptive, and to avoid behaviors that are normally maladaptive. In this regard, the emotions evoked by

expectation do not differ in function from other emotions. As we will see, the emotions accompanying expectations are intended to reinforce accurate prediction, promote appropriate event-readiness, and increase the likelihood of future positive outcomes. We will discover that music-making taps into these primordial functions to produce a wealth of compelling emotional experiences. (2006, 4)

Huron goes on to note that our capacity (and desire) to predict confers very specific biological advantages, including our preparedness for advantageous opportunities and the avoidance of potentially dangerous situations; accurate expectations also optimize our expenditure of energy and help focus our attention in economical ways (2006, 3, 176). We see such factors at play in the writings of music theorists who have long noted that musically ambiguous or even suspenseful events are often pleasant for a listener, depending on how long it takes for clarification or resolution to occur (e.g., Meyer 1956, 27–28). Similarly, Daniel Levitin has made the analogy between such resolutions and joke telling, since in both cases the listener enjoys being led (temporarily) astray and realizing that there is more than one way to proceed through a piece/passage/story (2009, 110).

[7] The analysis and insights in this article complement and develop ideas from Mark Butler's *Unlocking the Groove* (Butler 2006), particularly in his focus on metrical ambiguity, audience participation, and the specific role that underdetermination (metrical vagueness)—the form of ambiguity featured in “Pyramid Song”—plays in fostering interpretive multiplicity.⁽⁵⁾ Butler engaged in ethnographic fieldwork, an approach he openly credits to his studies in ethnomusicology (2006, 26–29); this article similarly draws upon ethnography (as well as fan reception studies) and its application to music theory and analysis. My research diverges from Butler's, however, in the following ways: (1) the responses of my studied subjects are drawn almost exclusively from the internet; (2) these responses form the central text in my analysis (whereas in Butler's work such remarks serve more as occasional commentary); and (3) my focus is on active *listeners*, who may or may not be dancing as they experience the music. Our research parameters nevertheless encompass the same domains, as stated in the opening to Butler's second chapter: “I will be concerned with rhythm and meter in a broad sense: with the ways that those who listen to the music have described and categorized its rhythmic and metrical attributes, and with music-theoretical concepts that can clarify these phenomena as they occur in this repertory” (2006, 77).

[8] Ethnographic research focused on internet communities has particular value for the expansion of existing music-theoretical and cognitive science models. As the responses in my sample will clearly illustrate, audiences are no longer homogenous (if they ever were) due to the eclectic nature of modern listening, continued travel and immigration, and exposure to and knowledge of non-Western musical genres and rhythmic constructions. Categories such as “Western listener” or “youth audience” are thus problematic on a number of fronts, calling into question many assumptions and protocols in (Western) analyses of expectation and entrainment. Internet research engages audiences on their own terms—where they provide their own analytical-interpretive language, instead of having to choose from pre-established categories (a norm in academic research questionnaires)—and in their natural places of experiencing the music (often within the home from their computer, stereo, or mp3 player, rather than in a university lab). Re-presenting these views in their entirety, preserving the “grain” of the individual voice, reflects as well a long-held ethical imperative within ethnomusicology and anthropology not to speak for others.

[9] As Butler also notes, the use and integration of field research can serve as an alternative to music theory's tendency to emphasize individual analytical engagements (2006, 27). Including audiences' views from dedicated web sites thus signals the move away from typical author/lone-analyst centered music analysis toward a more interactive and collaborative research model. The potential benefits of such dialogic encounters are at least twofold: (1) concrete examples of audience responses expose the richness and complexity of fans' listening experiences; and (2) broader theoretical perspectives or possibilities are allowed and encouraged through a decentralized approach to analysis and interpretation. In the context of the present research, a music-theoretical sophistication or savvy on the part of audiences emerges that has as yet gone unacknowledged in the literature on fan cultures and the media,⁽⁶⁾ at the same time calling out for the tools of music theory to standardize and thus compare these views.

[10] I begin by providing a general context for understanding the place of “Pyramid Song” within the broader Radiohead

repertoire—historically, textually, visually, and musically. The main body of the article then outlines in some detail the myriad ways listening audiences have made sense of its meter—or lack thereof—in the absence of reliable published scores and expressed intent by the band.⁽⁷⁾ The primary goal is to document the activities of a community that coalesced around a riddle of metrical ambiguity. I will also draw attention to the fans’ expressions of their interpretation of meter as a key to unlocking semantic content, as well as the sources of authority on which they drew. I conclude with thoughts about additional research on musical ambiguity and further possibilities for mass participation and collaborative problem solving in music theory and aesthetics.

Radiohead/*Amnesiac* Background

[11] Radiohead is Thom Yorke (lead vocals, guitars, piano), Ed O’Brien (guitars, backing vocals), Phil Selway (drums/percussion), and brothers Jonny Greenwood (guitars, keyboards) and Colin Greenwood (bass). Formed in Abingdon, Oxfordshire in 1985, the band has remarkably kept the same personnel over its roughly 27 years of existence, though members’ roles have changed over the decades, as has their arsenal of musical instruments (including electronics). As of 2013 Radiohead has released eight full-length studio albums, six under contract with Parlophone/EMI and the last two independently via the label TBD Records (see **Example 1**).⁽⁸⁾ Generally classified as “alternative rock” (a designation now almost meaningless), they are acknowledged and admired for their eclectic influences ranging from classic rock, jazz, post-punk, and the avant-garde to electronic music (including techno and post-serialist studio work). Radiohead is regularly featured on fans’ and critics’ top choice lists, and they have won numerous prizes on both sides of the Atlantic, including three Grammys for Best Alternative Music Album.⁽⁹⁾

[12] As is apparent from Example 1, a number of consistencies appear across the albums when viewed as a composite whole. For many critics, fans, and even the band members themselves, the “true” Radiohead sound and approach began to emerge with their second release, *The Bends* (1995). Sonically it introduced the work of Nigel Godrich as a recording engineer, brought on under the producer John Leckie. Godrich’s ear and work habits were such that Radiohead would ask him to be their producer on the subsequent *OK Computer* (1997), a position he has held for the remainder of their recorded work (Godrich even joined Thom Yorke as a keyboardist on his solo tour in 2009–10 with the band Atoms for Peace). *The Bends* also introduced to the world the artistic vision of Yorke’s personal friend Stanley Donwood (b. Dan Rickwood), a fellow art student from University of Exeter days, who has been responsible for all of Radiohead’s cover and liner art since (see [Donwood and Tchok 2007](#)).⁽¹⁰⁾ And while it is clearly reductionist to subsume the band’s entire lyrical content under a single emotional rubric, one researcher has noted the prevalence of anxiety spanning the output from the *The Bends* through to *Hail to the Thief* (2003), a catchall that includes the recurring themes of broken relationships, paranoia, powerlessness, fear of technology, mistrust of government, physical and emotional brutality, suicide, death, hell, and alien abduction ([Letts 2005](#), 85–87).⁽¹¹⁾

[13] *The Bends* also critically marks a tacit agreement between Radiohead and its serious fans that ambiguity would form a central pillar on which they would build their collective and ongoing working relationship. Intentional vagueness and/or multiplicity of meanings in the artwork, lyrics, musical references, web sites, and videos created a fan culture (and significant academic base) that routinely pores over the imagery, sounds, and words looking for clues and hidden meanings: “such deliberate ambiguity has become a hallmark of Radiohead’s presentation and has created a community of fans joined by their shared interpretations of the band’s projects” ([Letts 2005](#), vi; see also [Forbes and Reisch 2009](#)). The academic and popular press now routinely speak of Radiohead’s reliance on ambiguity ([Tate 2005a](#), 1–4), obscurity ([Paytress 2005](#), 4; [Clarke 2010](#), 65, 95–96), and the enigmatic ([Fricke 2001a](#), 44), with “the band’s reflexive esthetic effectively disrupt[ing] naïve consumption, confronting the listener with music and art that adheres to opacity versus authenticity as a guiding principle” ([Tate 2005b](#), 115). In an interview with the music critic Alex Ross, Radiohead—in an uncharacteristically straightforward manner—likened their work to the solving of musical puzzles:

What fans seem to like, even more than the content of the songs, is the sense that the band members have labored over every aspect of the product. They are skilled, first of all, at inventing the kinds of riddles that people enjoy unraveling. The records, the videos, the official website, even the T-shirts all cry out for

interpretation. Why are the words spelled funny? What are all these charts and diagrams? . . . “We liked worrying over that kind of thing when we were kids, and we’re still in the same mind-set a lot of the time,” Selway said. “But it’s a bit incidental. We’re dead set on the music. That’s the thread running through this whole thing. We met at school playing music together, and we still get together over music now. We like solving musical puzzles. That’s what Thom gives us.” (2010, 89) ⁽¹²⁾

It is also a culture built on respect and trust: as has now been amply documented, in late 2007 with perhaps their greatest gesture of invitation to the fans, Radiohead released *In Rainbows* digitally such that fans could choose what to pay for the download (including nothing at all), could create and donate music videos, were given access to some of the music files to create their own unique pieces, and were allowed to write their own reviews before large outlets and the press were sent the standard media packet (see [Lawson 2009](#), 62–79 and [Randall 2011](#), 235–40, 235–40, 254–56).

[14] Ambiguity was a special hallmark of the pair of albums *Kid A* and *Amnesiac*, recorded during the same sessions but released eight months apart as separate projects. In both cases the musical roles of the band members became newly obscured or obliterated, with Radiohead choosing to leave their guitar-based sound behind in favor of electronic experimentation and non-traditional lineups such that it was often impossible to match a particular sound with a specific individual (band members also switched instruments, or were absent on some tracks). Even Thom Yorke’s distinctive voice was manipulated or masked by studio techniques so that the comprehension of words and at times entire phrases was made extremely problematic ([Hainge 2005](#), 63). Such opacity was enhanced by Radiohead’s choice not to include lyrics with *Kid A* (a first for the group), and to provide only snippets of text—some of it from sung lyrics, others not, but all out of order—on *Amnesiac*; Yorke admitted in an interview with *The Wire* that it was his desire that listeners not focus too carefully on the words with this pair of releases ([Reynolds 2001](#), 26). As former Guardian music critic Garry Mulholland acknowledged, “No one else on Radiohead’s creative and commercial level makes music like *Amnesiac* and *Kid A* that felt so open to individual interpretation [and] gave so much credit to their fans for an adventurous ear” (2006, 348; see [Collins 2004](#) and [Letts 2010b](#) for further discussion of similarities and differences between these two albums [Collins also compares their relationship to the album that followed]).

[15] *Amnesiac* was initially released in three formats: a standard CD, a deluxe box set (standard CD, CD with B-sides, DVD, and three postcards), and a Special Edition Book (CD with bound book, winner of the 2001 Grammy Award for Best Album Package). Where *Kid A* was essentially sprung on the world without the usual fanfare of singles, videos, or concerts to promote the album (it nevertheless shot to Number 1 on the charts, and won the Grammy for Best Alternative Music Album), with *Amnesiac* Radiohead decided to return to more conventional practices by releasing three singles with B-sides (“Pyramid Song,” “I Might Be Wrong,” and “Knives Out”; refer to **Example 2**), producing a number of videos, and embarking on a world tour.

[16] Before even taking the standard CD out of the case, audiences are confronted with—and ultimately challenged by, if so choosing—the packaging of *Amnesiac*. On the cover of the booklet is the picture of an orange/red-colored book with a damaged spine; the only design is a cartoon figure with its hands over its eyes, crying, superimposed on what appear to be star charts. ⁽¹³⁾ Once the booklet is opened, the viewer is presented with 26 separate artistic works that include drawings, sketches, cartoons, photographs, computer-generated art, x-rays, and hand-written and typed excerpts of texts, with no apparent connection or identification provided. The cartoon character from the cover does reappear on some of the pages (one only discovers that this is a “weeping Minotaur” if one goes to Radiohead web sites or reads print interviews), ⁽¹⁴⁾ but overall its presence seems only loosely related as a kind of general commentary on a collective ethos of sadness, confusion, destruction, and despair reflected in images of gravestones, skeletal faces, fires, otherworldly figures, and nuclear explosions. Such mysteries are compounded for the fan who also buys the box set and special edition book: apparently some of the art work matches specific songs (the postcards in the box set make connections to “Pyramid Song” and “Knives Out”), and the standard CD booklet is missing six of the special edition book’s prints (begging the obvious question, Why?). ⁽¹⁵⁾ And then there are those text excerpts, requiring the enthusiast with additional energy to first seek out the lyrics on an unofficial web site, then try to match them against what is found. ⁽¹⁶⁾

[17] While a later analyst argued against thinking of *Amnesiac* in terms of a concept album, because of “material that requires effort on the part of the listener to make sense of, yet offering little to no plot, characters, or dramatic action to clarify the concept” (Letts 2005, 167), both Yorke and artist Donwood offered enticing, if not characteristically ambiguous, commentary on their project:

Amnesiac is about seeing really awful things that you try to forget and can't quite. Whereas *Kid A* is deliberately trying to keep everything at a safe distance. (Yorke in Watson 2001, 46; see also Letts 2010a)

Kid A was kind of like an electric shock. *Amnesiac* is more about being in the woods (laughs), in the countryside. I think the artwork is the best way of explaining it. The artwork to *Kid A* was all in the distance. The fires were all going on on the other side of the hill. With *Amnesiac*, you're actually in the forest while the fire's happening. (Yorke in Kent 2001, 63)

Something traumatic is happening in *Kid A*. . . [*Amnesiac*] is looking back at it, trying to piece together what has happened. (Yorke in Linder 2009)

[*Amnesiac*] has a very different identity. . . . There's a lot of violence in soft sounds and language, staring at something very frightening square in the face . . . There's also some of the most reassuring stuff we've ever done. (Yorke in Anon. 2001, 79–80)

With *Amnesiac* it was going in very close. Too close. So close you can only see a wall—graffitied, scratched, clawed at—in front of you. This is the home of the Minotaur . . . They were sections of wall in some horrible labyrinth under the burning cities . . . The *Amnesiac* book is designed to be left for decades in a drawer, in an old cupboard, in a dusty attic, in an abandoned house, and found after I am dead. (Donwood in Leblanc 2005, 100)

[18] It is against this backdrop of richly and complexly textured imagery, themes, and texts that I now turn to the track “Pyramid Song,” and to the myriad detailed audience responses elicited by its metrical challenges.

“Pyramid Song”

[19] Known alternatively as “Egyptian Song” and “Nothing to Fear” during its gestation period, what came to be called “Pyramid Song”—debuted in Amsterdam at the 1999 Tibetan Freedom Concert—is now considered by the band and its audiences to be one of their finest works (Paytress 2005, 59). The choice of the final title has been scrutinized by fan and critic alike—nothing new for Radiohead—as there are no direct references to Egypt or pyramids in the lyrics (there is, however, a sizable community that believes it has found pyramid-like dimensions in the metrical structure of the song, to be addressed below). Many theories abound: (1) Yorke immersed himself in Tibetan and Egyptian books of the dead in preparation for the Amsterdam concert, which could account for lyrical references to rivers, boats, angels, and the heavens (Hale 1999, 116–17); (2) musically the song was inspired by Charles Mingus's song “Freedom” and its subject matter relating to the flight of Moses and the Israelites, hence the earlier reference to Egypt and rivers (Letts 2005, 136); (3) the last line of the verse is nearly identical to content found in Tom Waits' 1985 song “Clap Hands,” which itself is lifted from “The Clapping Song” by Shirley Ellis (1965), which refers back to the handclaps in Mingus's “Freedom” of 1963 (<http://www.greenplastic.com/radiohead-lyrics/amnesiac/pyramid-song/>); and (4) the lyrics suggest an Egyptian funeral (Pareles 2001, 74; Dimery 2006, 883). Yorke's own musings on the album title are also suggestive: “I read that the Gnostics believe when we are born we are forced to forget where we have come from in order to deal with the trauma of arriving in this life. I thought this was really fascinating. It's like the river of forgetfulness” (quoted in Fricke 2001b, 25).

[20] “Pyramid Song” is composed of a single verse with refrain (“there was nothing to fear and nothing to doubt”) played twice.⁽¹⁷⁾ For the first statement of the verse there is only Yorke singing, accompanying himself on acoustic piano. An orchestral string section enters with the intro to the second verse, then drums followed by upright bass provide a context for interpreting the song's meter (the overall texture later enhanced by the sounds of the ondes Martenot).⁽¹⁸⁾ What first

attracted me and many others to this track, however, was the opening of the song where little is provided for the listener in terms of rhythmic orientation. There is no “beat” or regular pulse, no percussion or text, just a series of piano chords played at an even dynamic level with (slight) pauses occurring after the third and eighth chords (the pauses are repeated structurally at the same points throughout the remainder of the song). Most listeners identify this series as a kind of cycle divided into two phrases of five chords each because of the upward and downward movement of the bass line and inner voices and the parallel placement of pauses after the third chord in each group of five. And most focus on the third or fourth iteration of the cycle as a kind of model on which to base their analyses, most likely because these versions are played more than any other.⁽¹⁹⁾ (Notice that the holdover or suspension of the G natural in the top line of the piano from the end of bar 2 into bar 3 creates a kind of temporary structural/harmonic ambiguity.) In **Example 3** I have provided a piano reduction of the first four iterations of the piano cycle; for readers unfamiliar with the song, I have looped the fourth iteration in the audio. It should also be noted that many respondents commented on the cycle’s “gypsy” feel due to its adherence to a standard I–♭II–♭III chord progression found in Andalusian Phrygian tonality (see [Manuel 2006](#), 97).

[21] The opening of “Pyramid Song” is a clear example of ambiguity of metrical type featuring underdetermination, as defined by Butler: “Underdetermination usually occurs when one or more layers of motion needed to make a decisive metrical interpretation are absent; in such a case, the meter is ‘not clearly defined’ as in the first sense of ambiguity described by the *OED*” (2006, 129–30).⁽²⁰⁾ The Radiohead introduction also fits especially well within Justin London’s category of “vague metric context” under his taxonomy of metric ambiguity: “[I]n metrically vague situations there is a discernable sense of regularity, but the listener is stymied when he or she tries to construe any particular metrical organization” (2004, 85–86). It is this lack of metrical clarity, taken in conjunction with its relationship to the later entrance of the drum set, that has provided the impetus behind the outpouring of listeners’ interpretations, not only of the meter but also of Radiohead’s underlying semantic intent. What is important for me here is the wide range and inventiveness of perspectives and meanings generated by these audiences as a potent indicator of ambiguity inviting participation. Looking to maintain a decentralized approach to analysis and interpretation, it is not in my present interests to advocate for any particular viewpoint. What is central to this process (for reasons outlined in the Introduction) is to let respondents speak in their own voices, so that the original feeling and texture of the analytical and emotional content remains intact.

[22] To this end, I have provided below the unedited responses of participants drawn from a pool of six print publications, 13 websites, and 261 individual web entries logged between 2007–11 related to rhythm and meter in “Pyramid Song” (this number runs to well over a thousand if all threads addressing this song and/or *Amnesiac* are included).⁽²¹⁾ These responses—chosen as representative examples of a much larger base—are organized into nine categories of metrical interpretation to facilitate comparison: firstly by the existence/absence of a meter, and secondly by the quality of the meter. To further cut down on redundancy, I have used the following method for marking web entries: “FB Stephen” identifies an entry by “Stephen” (in some cases these are real names, in others an assumed one) from the Facebook (FB) page titled “Time Signature in Pyramid Song???” (refer to the Web Sites section at the end of this article for the full list of abbreviations and corresponding page titles).⁽²²⁾ It is worth noting that while “participation” for many of the respondents represented “just” listening and commenting, there were also a number of instances of fans attempting to play the music themselves, demonstrating various instrumental lines on YouTube, producing original-content video, or running the song through sound-analysis software.

Opening Philosophical Musings

[23] The stakes, at least for one philosophically minded listener, are high—extending beyond this individual song to the sources of individual temporal experience. In his contribution to the tome *Radiohead and Philosophy*, Michael Thompson begins with an observation that perfectly encapsulates my own initial encounter with the song:

After hearing “Pyramid Song” from *Amnesiac*, most people say, “Something’s not quite right with that song.” . . . Yet neither the vocals nor Yorke’s delivery seems to account for the arresting qualities of “Pyramid Song.” It is, rather, the mood of the song that seems to grab and keep your attention. And that mood has everything to do with the song’s rhythm. (2009, 221)

From here Thompson goes on to provide a more ambitious explanation for the song's ability to challenge a listener's sense of self, time, the world, and even the afterlife:

The rhythm of the song seems skewed. As it plays, you might ask, “why does it sound like the notes are played a split-second too late?” It's because the song has a complex time signature that leads to rhythms that are out of joint with those of our ordinary experience. This is what is so compelling about “Pyramid Song.” Its timing, rhythm, and beat are literally out of sync with the way we ordinarily experience the world. (2009, 221–22)

This makes sense of the effects the song has and suggests that different listeners may in fact hear the song differently—that the debate about time signature rests on the subjectivity of perception Yorke points to [the time is just “felt”]. If you tend to see life as a sequence of small cluster of events with strange emphases [reference to syncopation in the opening of the song], a simpler time signature [4/4] is what you will recognize in the song. If you see life as a larger sequence with regular patterns and rhythms, you will hear a more complicated time signature. If you see life as a constantly shifting series of events, some smaller, some larger, and recognize the cyclicity of these events, you will hear shifting time signatures. (2009, 223)

The rhythmic oddness of “Pyramid Song” is then an opportunity to become aware of temporality itself. By breaking from the regular rhythms we expect to hear in popular music, Radiohead nudges us to adopt phenomenological perspectives on time—something one must do with caution. Remembrance and recognition of our lives in the past can be painful, as it seems to be for Chopin. For others it can lead to a difficult realization about death and finitude. (2009, 228)

Two Separate Songs

[24] Most listeners made attempts at exacting a rhythmic structure and/or meter—either right from the beginning or based on the interaction of drums and piano in the second iteration of the verse—and then assumed that this structure was applicable to the song in its entirety. While this was my own strategy (and, generally, the way I listen to this song), the following respondents were happy to think of the two verses as inhabiting different realms, almost as if they were two separate songs linked together by a common text (without going any further to establish a unifying, underlying rhythm):

YT CallMeVann: “Beautiful, I love how the drum beat completely changes the song at 2:05.”

YT magikmalick: “Astounding song. The first time I heard it, when the drums started I remember thinking there was no way to expect this particular rhythm. (If that ever makes sense to someone . . .)”

After having spent numerous listenings perfecting my tapping abilities to an underlying but hidden pulse (see below), I now also enjoy hearing the first time through the verse as a kind of rhythmic dream state without a beat, allowing myself to be surprised by the entrance of the drums the second time through.

A Regular Meter

[25] As mentioned above, the majority of respondents felt that there was some kind of regular meter that applied to “Pyramid Song” from beginning to end. Radiohead on the whole has been silent on this issue, (23) though a quote attributed to Thom Yorke suggests a circular orientation that could be construed as a reference to a regular meter:

SF: “This was written by Thom Yorke after a visit to an exhibition of Egyptian art, during a two-week sojourn in Copenhagen in 1999. He told MTV: “That song literally took five minutes to write, but yet it came from all these mad places. [It's] something I never thought I could actually get across in a song and lyrically. [But I] managed it and that was really, really tough. [Physicist] Stephen Hawking talks about the theory that time is another force. It's [a] fourth dimension and [he talks about] the idea that time is completely cyclical,

it's always doing this [spins finger]. It's a factor, like gravity. It's something that I found in Buddhism as well. That's what 'Pyramid Song' is about, the fact that everything is going in circles."

What is more significant about a unifying metrical structure in the context of this song is that it requires the listener to abstract out a silent or "hidden" beat (at least at the beginning) which is not provided by the piano chords or singing—a very difficult task, even for professional musicians. Parallels here with African drumming and its rhythmic orientation are striking: John Blacking speaks of "the rhythm of an invisible conductor" (1973, 30), Simha Arom conceives of a "mould" into which surface structures would fit (2004, 18), and Richard Waterman describes an additional (unheard) rhythm against which an obvious surface structure pulled (1952, 211–12;12; see also Chernoff 1979, 49–50). Justin London further identifies this phenomenon in "Pyramid Song" as a kind of "metric fakeout" which "starts with [a] complex beat pattern that then becomes [the] rhythmic figure against [a] 'correct' meter" (n.d.). This explanation is similar to David Huron's application of the "garden path" phenomenon to music in which someone might feel s/he understands an utterance, but must then reanalyze it in light of a later happening (in this case, the entrance of the drums; 2006, 279–81).

No Specific Meter Identified, or Respondents Unsure

[26] One of the first responses I encountered on the web essentially matched my bare-bones description of the piano chords at the beginning of this article, a view that seemed to assume that all the chords were the same length (no syncopation) with a kind of artistic loosening of the tempo (rubato?) applied to every third and eighth chord: (24)

GPT: "Now the timing of the song is really tricky. Thom hits all the chords at an even pace throughout the chord sequence, but at certain points he stops for a split second longer. So after each chord I will put a * so as to let you know to hold the time signature a little longer before moving on to the next chord." [no time signature is provided, just a series of isolated chords] (25)

A number of listeners, however, were content to just "feel" the piece, regardless of what the meter might be:

YT interpolluter29: "The way you do it at first is forget about rhythm and play the song like a classical piece. Or rather just feel the music, and the rest will fall into place."

YT thedonedude: "All you guys are getting it wrong! It doesn't matter if it's 4/4 or and 8/8 etc. You'll never figure it if you use your head. Music is all about feel and if you can't feel it you will never get that magic spark that will make you play anything."

YT 5T41KER: "I don't think Radiohead wrote this gem of a song to spark up in depth debate on its time signature to be honest. Just enjoy it, and play/believe/write it out in whatever time signature works for you."

MG Check My French: "You can't count that song, you just gotta feel it. I tried to play it while counting for weeks. Then I stopped and just listened."

MG castlebuilding: "Yorke, like most members of Radiohead, has never learned how to read music. He said, 'If someone lays the notes on a page in front of me, it's meaningless . . . because to me you can't express the rhythms properly like that. It's a very ineffective way of doing it, so I've never really bothered picking it up.'"

[27] Numerical ratios also captured the imagination of a number of individuals; while certain meters are implied by such discussions, I have included the following ruminations more for their relationship to the title and deeper meaning of the song (these ratios will appear again, and will be fully explicated, in categories that follow):

YT PrincessPunzee: "If you go back a few comments or comment pages, someone explained it. It's like a 3–3–4–3–3 timing. Very interesting stuff. I'm almost sure I've never known any song to do that. . . . apparently it's supposed to do with the shape of a pyramid, you know: 3 sides for each triangle and four sides for the bottom."

Paytress 2005, 60: “Given the near triangular rhythm at its heart, ‘Pyramid Song’ seems an appropriate title.”

FB Sam: “The Ancient Egyptian Pyramids were all built in a 3:4:5 ratio. Some people see elements of the golden ratio in this construction, something which is used frequently in architecture and music (eg, Bartok). It was argued that it was somehow ‘pleasing’ to the ear and eye. Since there’s no other reference to pyramids in the song, I assume Radiohead were going after this golden ratio in the rhythms of this song. Sorry, I’m not a massive fan of Radiohead so I’m not going to slave away working out HOW they went about this, but it seems like the sort of thing they’d be into.”

[28] Other listeners had more philosophical and/or creative ways of accounting for the feeling and structure of the song:

YT DKsmiles: “This isn’t 4:4, the emphasis is completely wrong. I’d say your best bet is to say that it either doesn’t have a time signature, or it’s a complicated mix of 2 or 3 different ones. The point is, however, that Thom Yorke is a genius to such an extent that he can write a song in a completely random time signature and make it sound pretty normal.”

Letts 2005, 124, 134: “Pyramid Song’s meter as ‘out of time’ and representing the ‘nonsense’ side of a binary that includes ‘sense’; ‘Pyramid Song’s rhythm is ‘dreamy’ and creates ‘a sense of timelessness.’”

FB Danni: “I just put the file into a program called sonic Visualiser. So far I have looked at the piano Intro . . . There are two note sizes (one exactly half the size of the other)—the whole pattern is exactly 22 times the size of the smallest note. When broken up into phrases it works out to 7, 6, 5, 4 of what I assume are 8ths. I haven’t yet looked at how the piano fits in with the other instruments so the overall key [time] signature may be different. But I am pretty sure that this is the conceptual pattern behind the piano.”

And my sympathy goes out to the following individual:

FB Shannon: “I have just spent the last half hour listening to it repeatedly with a pen and paper trying to work it out neighbours would be going crazy if it wasn’t such a great song ;-)) I couldn’t work it out btw . . . !”

Non-Isochronous Meters: Alone and in Combination with Simple Meters

[29] Before moving on to more common simple and compound meter constructions, I begin with examples of non-isochronous meter interpretations, both alone and in combination with simple meter interpretations. A non-isochronous meter, as defined by London (2004, 100–15), refers to a collection of asymmetrical pulse lengths where the integrity of the subactus is maintained (such as in the example $\frac{2+3+3+2}{8}$). My assumption with the responses that follow, therefore, is that each number in a non-isochronous grouping refers to a single piano chord placed metrically (i.e., aligned with a pulse, *not* syncopated against some other underlying meter).

[30] Non-isochronous meter discussions centered on the possibility of 11/8. In each case the 11/8 interpretation remained consistent, each phrase of the piano cycle (five chords) envisioned as composed of five pulses with the first, second, fourth, and fifth chords being equal in length ($\frac{2+2+3+2+2}{8}$):

YT butler: “Quarter note, quarter note, dotted quarter note, quarter note, quarter note ostinato over and over, making it (5.5)/4 or 11/8.”

FB Patrick: “It’s in 11/8 guys. Eighth notes are grouped 2-2-3-2-2 (counted: 12-12-123-12-12). Every measure. For the entire song.”

FB Noele: “Um, it’s definitely 11/8. 2+2+3+2+2. It’s a palindrome. Or pyramid.”

On the surface the core interpretation of combined non-isochronous and simple meters created by listeners—7/8, 3/4, 5/8, 2/4—bears little resemblance to the 11/8 examples. However, if one doubles the 11/8 phrase to cover an entire piano cycle (22 eighth notes in length)—maintaining the same pulse length relationships—then what one discovers is an astounding yet logical way of dividing the cycle that breaks across the symmetrical model of two bars of 11/8 but is still composed of ten pulses arranged in a way that mirrors the harmonic rhythm of the first iteration of the piano cycle (especially the changes at A^{add6}, Gmaj7, and finally Gmaj). Written in eighth note groupings, the full cycle is represented by 2+2+3, 2+2+2, 2+3, 2+2; written using time signatures, we are presented with $\frac{2+2+3}{8}$, 3/4, $\frac{2+3}{8}$, 2/4 (see **Example 4**):

FB Quang: “Hey. . . from what I feel it’s a loop of 4 different bars: 7/8—3/4—5/8—2/4. And the pattern repeats over and over. I played the piano groove with this counting, and I find it matched. Try it!”

SF Stacy: “Are there any ‘classically’ trained musicians out there? If you listen carefully, you’ll find that the song is in a repeating pattern of 7/8, 3/4, 5/8, and 2/4. It completely makes sense, because it makes the [piano] phrasing so that it ends up equal every time.”

Compound Meters

[31] For the majority of respondents “Pyramid Song” was in a more common compound or simple meter. Within the compound meter camp, many individuals cited a “jazz” or “swing” feel to the entrance of the drums at the second verse to support their interpretation of metrical intent (and many web sites and blogs made references to Yorke’s inspiration in Charles Mingus’s jazz classic “Freedom”):⁽²⁶⁾

WP: “The song builds to a climax with the introduction of Phil Selway’s jazz-influenced compound rhythm.”

Example 5 provides a simplified “compound meter” realization of the entrance of the drums without any grouping (or “measure”) indications within each set of five chords (listen to the audio with Example 5). Two important features distinguish all compound meter interpretations structurally from those of the non-isochronous type: (1) the first two piano chords (as well as a number of subsequent chords) are viewed as unequal in duration; and (2) a number of chords are felt as syncopated against a stream of symmetrical pulses.

[32] A number of individuals were happy with a straight 9/8 or 12/8 organization:

FB Will: “Yea, it’s definitely 9/8. I’ve asked 2 of my old music teachers, 3 professional guitarists, 2 drum teachers, a jazz percussionist and a jazz singer/keyboardist and they all agree. This has been bugging me for months but I’m fairly sure that’s right.”

SF Rob: “Well . . . technically . . . the way it is recorded the song is in 12/8 (similar to 4/4 but it is a triple meter feel). This is very clear when the drums enter. You could feel it as 9/8, 6/8, 9/8 (similar to 3/4, 2/4, 3/4 in duple meter). A time signature is just used to break up the music in a logical way for the performer to interpret, similar to ‘The Rite of Spring’ being written out in 4/4. It is the same music but has a different feel and is in turn interpreted differently.”

A larger group, however, had fun employing a cycle with alternating compound meters:

8N: notated in bars of 9/8, 9/8, 6/8.

YT thatboneguy: “It sounds to me like 9/8, 9/8, 6/8 repeating throughout. I guess you could say 8/4 with a swing. Or you could say 24/8. I think. But I love how you think it’s just a piano hesitating randomly at the beginning, but you then hear the beat come in. Simply genius.”

YT gypsyljg: “Jibblegit you’re correct in saying it’s in a shuffle-influenced style. The 4:4 that you’re referring

to is simply an illusion—the beats you are counting are slightly unequal lengths. The piece goes 9:8 for two bars then one bar 6:8 and repeats! The chord lengths are either 4, 5, or 6 quavers long :-). Hope this helps.”

YT gypsyljg [again]: “I’ve never understood this debate. The song is clearly in compound time—a mixture of 6/8 and 9/8 in this case. It frequently switches between the two—but since the chords are syncopated and never fall on a strong beat, the time signature is irrelevant. When the drums enter the rhythm is revealed as being compound (when before the chords, without the rhythmic reinforcement of the drums, sounded almost un-notatable.)”

FB Graham: “It works either way. It just depends how you want to write it. A 9/8 9/8 6/8 time signature is easier to write, but in the end it ends up the same number of beats and same phrase length as two bars of 12/8. That does make a little more sense though.”

SF Caroline: “Yep, I hear 3–2–3 3–2–3 (or 9/8 | 6/8 | 9/8 | 9/8 | 6/8 | 9/8). The sheet music I have says 9/8 | 9/8 | 6/8.” (27)

[33] Because of the recurrence of certain numeric ratios in the previous discussion (3–2–3, 3–3–2, 4–5–6), but also to be able to compare these ratios with time signatures that follow, I have provided in **Example 6** a 9/8, 9/8, 6/8 realization of the first phrase (opening five piano chords) of the third iteration of the cycle. The top row of boxes represents the smallest rhythmic unit implied by this meter (the eighth note), bracketed off into groups of 9, 9, and 6 (9/8, 9/8, 6/8); immediately below this I have added slurs to indicate possible groupings of the piano chords. I say “possible” in that only one of the responses provides specific piano chord lengths (4, 5, or 6 eighth notes), and that this only makes sense when corroborated with another entry that dictates that one should “syncopate” the chords (even with this knowledge, I had to exercise some interpretive license). Below this I then provide the chord qualities, with the remaining two rows of boxes showing groupings by beat (according to chord changes) and eighth note lengths of the piano chords. Two items of note: (1) beat groupings by chord change (3–2–3) do not coincide with the bar lengths (3–3–2), unless one chooses a 9/8, 6/8, 9/8 cycle; and (2) 4–5–6 only makes sense when looking at the eighth note groupings for the piano chords but written in the order 5–4–6–5–4. A listening challenge in the [Appendix](#) will help readers explore the metric interpretation of Example 6, as well as that of Example 7 (presented below).

4/4 with Swung Eighth Notes

[34] In keeping with common practice in jazz notation (and, to a certain extent, pop), a number of respondents chose to describe the meter in “Pyramid Song” as 4/4 with the instructions to “swing” the eighth notes. While a number of writers and theorists refer to “swing” in such a context to describe expressive timing (including [Butler 2006](#), 22), most of the respondents below used such terminology to indicate what they felt was essentially a 12/8 compound meter (and, in fact, a number of scores referenced gave direct instructions to play each eighth note pair as a quarter-eighth triplet (28):

FB Jane: “4-beat with shuffle. That’s what I’d call it anyway. Others might say swung 4/4 or whatever but it all means the same thing at the end of the day. Ever since I realised that after hearing it 3 or 4 times, I have to deliberately try to make myself not realise it, in order for it to sound as good as it used to, which is difficult but possible. I preferred back when I thought it was some kind of weird alien time signature, lol.”

YT cashdollar: “Close, it’s just 4/4—4 bar phrases even. You are right about the swing feel. Just beat out 4/4 right from the beginning and follow along. It’s hypnotic and beautiful. I thought it was alternating time signatures too ever since the first time I heard this. I just figured this issue out a few days ago :)”

FB Graham: “Sorry, swung 4/4. I’m an idiot. ‘12/8’ if you want to be old fashioned. The phrases clash with a 6/8 time signature and although 3/4 5/4 does work, there is no point in making a time signature any more complicated than it needs to be, and the eighth notes are definitely swung. The drum pattern makes that really clear. It’s especially hard to tell the time signature in ‘Pyramid Song’ before the drums come in.”

FB Kristian: “Pyramid Song is simply 4/4 all the way through without any changes to the signature whatsoever. Points to remember are: It’s swung. . . . it’s a ‘compound’ rhythm . . . so basically you count triplets on every crochet (or quarter note for the Americans). The syncopation literally happens on the second piano chord. . . . most people screw up counting this at that stage. . . . You have to allow the second chord (from the very start of the track) to happen before the beat—it in fact falls on the ‘a’ after ‘2&a’. This rhythmic form would have originated from Africa and over the centuries found its way to Rio, Cuba and pretty much the whole South America. It is communicated as and named the ‘Bossa nova clave’ and the score explaining its pattern can be found here . . .”

This last response identifies clearly what I set out previously as distinguishing features of the compound meter interpretations: (1) the first two piano chords are unequal in duration (the first is longer than the second), and (2) the chords are felt as syncopated against a stream of symmetrical pulses (see **Example 7**, a rendition of the first phrase written out in 12/8 time to illustrate visually what happens when swinging the eighth notes). In such a “swung” (12/8) interpretation there is further syncopation with the metrically consonant third and fourth chords landing on weak beats (beat 4 and beat 2, respectively), as well as beat groupings by chord change that do not coincide with the bar lengths (3–2–3 versus 4–4).

[35] When comments begin to address specifics, however, the language and numerical ratios become more obscure. For the following entry, the note lengths of the piano chords are correct when writing out the swung eighths in full (here the sixteenth note is considered the smallest rhythmic unit, but with the same numeric results):

YT skotoseme: “You’ll notice that if you subdivide all the eighths into sixteenth triplets to account for the swing, the chords have a rhythmic ratio of 5:4:6:5:4 [refer to bottom row, Example 7] (=24 sixteenth triplets=a full measure of 4/4). No wonder it’s so disorienting before the drums come in.”

For the remaining entries and published scores one must look at a strictly 4/4 rendition (no swung eighth notes) to understand the numbers, which I have provided in **Example 8**. This then accounts for the sequence “33433” (refer to the row of boxes showing eighth note groupings for the piano chords), and its related “1.5 beats” (3 eighths) and “2 beats” (4 eighths), and/or dotted quarter note (3 eighths) and two tied quarter notes (4 eighths):

Radiohead: Amnesiac (music score) 2008, 6–9: 1st bar: dotted quarter, eighth tied to quarter, quarter tied to [next bar] quarter, quarter tied to eighth, dotted quarter [this equals the first two bars or first phrase; this rhythmic figure then repeats].

FH: 1st bar: dotted quarter, eighth tied to quarter, quarter tied to [next bar] quarter, quarter tied to eighth, dotted quarter [this equals the first two bars or first phrase; this rhythmic figure then repeats].

YT sqmuth: “That’s what I thought at first. I think Geekman1118’s take on it is the best. It’s like the faces of a pyramid, arranged 3:3:4:3:3. (The 4 triangles are the 3’s, and the 4 is the square base). Notate all those chords as dotted quarters (a beat and a half), except the ones with asterisks [the third piano chord of each group of five] are half notes (two beats). Finally, swing it. Voila, straight time.”

YT jwr24: “The song is in 4/4 with a swing feel. The pattern goes like this (over 2 bars): dotted quarter, dotted quarter, quarter tied to quarter, dotted quarter, dotted quarter. Then the pattern repeats itself. So the notes are held for 1.5 beats, 1.5 beats, 2 beats, 1.5 beats, 1.5 beats, repeated.”

4/4, 1 Complete Cycle over 4 Bars (16 Beats)

[36] If any conflict or rivalry exists within the “Pyramid Song” metrical world, it is felt most strongly by those aligning themselves with the “straight” (simple meter) 4/4 camp versus those who adhere to some kind of compound meter. While I have no way of evaluating the view from the opening philosophical musings that those who “see life as a sequence of [a] small cluster of events with strange emphases” will recognize “a simpler time signature [4/4]” (Thompson 2009, 223), music

theorists and cognitive scientists have documented how Western listeners carry with them a default binary expectation—because of a predominance of binary meters in Western music (especially popular genres)—which they will generally apply when confronted with an unknown rhythm (Brochard et al. 2003; Huron 2006, 194–95).⁽²⁹⁾ Precisely whether or not this applies to the listening perceptions of the 4/4 contingent is beyond the scope of this article; in most cases, the stated reasons for the simple meter choice was one of pragmatism: it was easiest to think of it this way, and the beats added up most directly to bars of four beats. In order for this interpretation to work, however, one of two viewpoints must be held: (1) the first verse (without drums) is played in its own (simple) meter in a different way from the second verse (an acknowledgement of a change to compound meter); or (2) the drum part is heard as binary (ternary divisions of the beat are not recognized). Either way, significantly the opening two piano chords are seen as equal in duration.

[37] A number of respondents identified a 4/4 meter, but without specifying the length of the entire cycle:

MG Drunkk Machine: “It is in 4/4. Just because the hits on piano are on off beats and the pattern concludes in four bars doesn’t make it not in 4/4. Count Phil’s ride, it’s pretty easy that way.”

FB Kristian: “I’m afraid it’s in 4/4. . . . anyone struggling to count it just needs to learn to [think] simply. It’s in 4/4—don’t try to be clever with it. Radiohead had no intention of some stupid cumbersome set of measures.”

Most web entries, however, described or notated the full cycle—ten piano chords, returning to the F \sharp triad—as occurring over four bars, or 16 full beats (refer again to Example 8 for the numeric ratios of the first phrase):

YT ingloriousbastard: “The song is in 4/4. To understand the drum pattern though, I find it easier to break the rhythm into quarter notes (16 beats, 16/4), which is what Phil’s ride signature is. The pattern is then 123–123–12–123–123–12 (the last 1, 2 is a drum fill). That’s a basic time of 3/4, 3/4, 2/4, 3/4, 3/4, 2/4.” [similar to 9/8, 9/8, 6/8, but not swung]

YT pennypthree: “Actually I think you’ll find the time signature is even simpler than that, the whole thing is in 4/4 but strangely syncopated. The best way to count it I find is 1–2–3–4–5–6 1–2–3–4 1–2–3–4–5–6 [(3+3)–4–(3+3) = eighth note level] or half time 1–2–3 1–2 1–2–3 [quarter note level].”

YT PhishFluid714: “It actually is in 4/4 the whole time. It applies a bossa nova rhythm but really slower than you would normally get in bossa nova (about twice as slow). The duration of each chord is 3 3 4 3 3 in terms of eighth notes.” (see further Taylor 2010)

FB Scott: “Great discussion. I’ve found the easiest way to count it for me is to think of each loop of the piano chords as 3 2 3 3 2 3 (crotchet [quarter note] beats), which does—interestingly—add up to four bars of four.”

FB Aaron: “Exactly right. Subdivisions and polyrhythms can exist within simple time signatures in order to make things more interesting, but the time signature itself, in this case, is 4/4. I didn’t believe it at first, either, but I sat down and analysed it, and anyone can count along and see that the phrasing resets every 16 beats. It’s 4/4. I’m sure Thom and Johnny would be very amused by this conversation, however. =)”

The strongest argument for 4/4 was made by an unnamed listener who created a YouTube video with the first iteration of the piano cycle looped over a click track to “prove” his 4/4 explanation (see Example 9).

[38] It is also interesting to note that a number of individuals heard the cycle beginning on the third (longer) piano chord, such that the song then began on the last two beats of the previous cycle:

FB James: “I love how the 5-chord phrases on the piano cover multiple measures. The third chord is always on the measure mark, which is why at the beginning and end of the song, there’s only 3 chords. At the

beginning, the 3rd, 4th, and 5th chords complete the first phrase, while the first 2 chords are omitted, since they would have fallen before the beginning of the song. At the end of the song, the 1st, 2nd, and 3rd chords complete the song. Throughout the song, those 5-chord phrases on the piano help you follow the simple 4/4 time signature, with the 3rd chord of each phrase being your measure marker.”

4/4, 1 Complete Cycle over 2 Bars (8 Beats)

[39] Identifying a pulse or beat to tap along with is of course a subjective enterprise, although there are some parameters by which most of us seem to adhere (see [Huron 2006](#), 175–76; [Martens 2011](#)). While a minority view within the 4/4 group, a significant number of listeners nevertheless heard “Pyramid Song” at exactly half the speed of the above category, so that a complete cycle took only 2 bars to complete:

PB: piano score notated as 4/4 (1 bar: 2 dotted eighths, then a quarter, then two dotted eighths) with the entire figure lasting 2 bars before repeating.

FB Jacob: “Here is my own transcription of Pyramid Song . . . <http://s53.photobucket.com/albums/g54/dreddnott/music/> The piano part is exactly what’s played, the guitar part is an arrangement of my own making. It’s been performed as written with guitar and piano by The Thom Yorke Experience tribute band. It’s the standard 123–123–123–123–1234 syncopation that you hear in jazz or progressive rock, ‘shifted over’ (for lack of a better term) by six [sixteenth] notes to 123–123–1234–123–123 [3–3–4–3–3]. It’s a very slow 4/4, and that’s all there is to it.”

FB Rodney: “Two dotted eighths, a quarter and two dotted eighths [1.5–1.5–2–1.5–1.5]. That’s the rhythm for the entire song. It adds up to four beats. The pulse isn’t what your ears are going to tell you, I know it’s ridiculous. The tempo is like 50 bpm. Also, since the pattern repeats you get four dotted eighths in a row which makes it harder to discern.”

Mentally it is easy to just halve all of the values found in Example 8; but for ease of comparison—and for a clear visual representation—I have provided a realization of the entire cycle in **Example 10**.

Mixed Meter

[40] In this final section I have documented various mixed meter interpretations, mixed meter understood as a stream of perceptually isochronous beats with asymmetrical groupings by bar (such as in the example 3/4, 5/4, 2/4). Such responses often resulted in unusual and/or challenging breakdowns, though in every instance the larger integrity of the phrase (8 beats) or entire cycle (16 beats) was maintained, as was a feeling that the first two chords are equal in length (the second chord syncopated against the pulse stream).

[41] The following respondents felt a significant break at the A^{add6} chord (sixth beat in 4/4 meter), similar to the non-isochronous grouping illustrated in Example 4 (b):

YT lampshade429: “It’s in 16/4 but it’s broken down like a measure of 5 and then a measure of 11. This song is amazing.” [5/4, 11/4]

YT xenotoxette: “1 bar of 5/4, 2 bars of 4/4, and one bar of 3/4.”

FB Pierre: “It could be interpreted in so many ways, depending on what you consider to be the downbeat. And it is hard to discern without the drums . . . The phrase is 5/4 (or 3/4 -2/4 to make up the 5/4)—11/4 (or 8/4 and 3/4 to make up the 11/4)—8/4—8/4. So, to make it clear, the phrase is 5/4—11/4—8/4—8/4 for the entire song. It changes slightly when the strings come in at the very end. The phrase then simply becomes 5/4—11/4.”

FB Johan: “Personally, I can’t [get] the feeling that it’s a $5/4 + 11/4$ out of my system. The fourth chord, the A, always brings me back to this, even if I set out trying to find the $4/4$ feel. I know when the drums kick in he doesn’t denote the A but the piano does, at least in my head.”

SF Dan: “First of all, this song is very hypnotic—I have listened to it like 5 times in a row now and can’t seem to bring myself to stop and travel to my other school to teach Chorus like I am supposed to be doing! The meter issue is certainly divisive. Everyone that has posted something about the time/meter has a good point. I think John from Lenexa, KS got it the most right for me. I hear the $3/4 + 2/4 + 3/4 + 3/4 + 2/4 + 3/4$ the best. If those divisions are too small for you, try $5/4 + 6/4 + 5/4$, but even those numbers don’t really show the tonal rhythm very well. Any song that garners this much discussion is a winner in my book!”

Others felt the first significant break to occur with the Gmaj7 chord (fourth beat in $4/4$ meter):

YT johng61: “| |: $3/4 + 2/4 + 3/4$:|| repeated throughout.” [directly matches harmonic rhythm of first phrase of piano cycle]

MG Creep: “So, $3/4, 5/4, 2/4$ completes the cycle of a single phrase.”

FB Ben: “This is a question that has been killing me for some time now . . . Maybe I’m the only one but I love trying to figure out the time signature in Radiohead and Tool songs. ‘Pyramid Song’ has had me stumped for some time now. I’ve heard it was $12/8, 6/8$, even $4/4$. But I believe it’s in $3/4 5/4$. Any thoughts?”

And numerology and the pyramids also found their way back into the fray:

YT ManianHedgehog: “If you count the beat carefully, you will hear the period of $4 3/4$ -measures and 1 $4/4$ -measure. It’s just like a pyramid—4 faces with 3 sides, 1 face with 4 sides.”

YT rawwqq: “Heard that this song’s time signature forms a pyramid. $4/4 3/4 2/4 1 2/4 3/4 4/4$ maybe? Or a really slow $4/4$.”

Conclusion

[42] Taken as a whole, the community that coalesced around the rhythm/meter of “Pyramid Song” represents a diverse and energetic body that demonstrated considerable patience, sophistication, and interpretive insight. In looking to solve a musical riddle, their arsenal of tools drew on music theory, structural formulae, notation, intuition, numerology, mathematics, cosmology, history, philosophy, technology, classical training, help from friends and teachers, and perspectives from non-Western music. Their responses reflect a blend of curiosity, adventure, posturing, passion, deference, and humor. And while this article only focused on those who were self-consciously reflective and vocal about the metrical aspects of this song, there are of course many others who didn’t or couldn’t identify the rhythm but who nevertheless felt something special about this composition, a kind of deep affinity for something textually, visually, and (crucially) musically that in combination created a work that was deeply moving and otherworldly:

PS2 speedybill47: “This is the song you hear in an ambient dream/nightmare. This is what a trapped soul in purgatory listens to as a lost being wandering aimlessly through an endless desert. This is beauty at the maximum of beauty. I was walking one night when this song played on my iPod. A bright lightning storm was in the distance. And the moon shined bright on the ocean. It overwhelmed me to the point of tears of beauty and sadness. From then on my life changed with how I felt about the world in a better way.”

[43] Ambiguity in the form of underdetermination created a rich forum for participation as listeners grappled with the song’s rhythmic organization and developed strategies for entrainment—satisfying biological and cognitive needs. Ethnographic research focused on internet communities brought these perspectives to light, though the tools of music theory were required to make sense of many of these interpretations. Radiohead’s use of ambiguity, however, extends much further into

their compositional and performative strategies, encompassing the realms of lyrics, song forms, chord progressions, vocal timbres, imagery, and human-technology interfaces. A full account of the ways these various components intersect, diverge, and play off one another provides many fruitful avenues of research yet to be explored.

[44] Whether one appeals to the “wisdom of the crowds” (Sorowiecki 2004), mass collaboration (Tapscott and Williams 2006), or “crowdsourcing” (Howe 2008), in structure and function the increasing reliance on and participation through the internet by large communities of like-minded individuals signals an era of mass participation and collaborative problem solving that has come to characterize our age. This is as much a political as it is a pragmatic reality: by reading through and mulling over entries by listeners with highly varied training, education, and life experiences, I was presented with a much broader view of the possibilities—in fact, listener realities—than I would have found on my own. The open-ended, interactive, and inclusive nature of many of these web sites has created public forums for debate that to my mind indicates a healthy new direction and long overdue reinvigoration of musical criticism and aesthetics, at the same time suggesting alternative, decentralized analytical approaches to musical works.

[45] Musings on ambiguity remind us that often the best songs are those worth revisiting. These are the melodies, structures, and words that continue to challenge and surprise us over the years, the ones that reward our efforts and personal imprint. They are also a mark of our imagination, of our need for ambiguity and the space it affords our feelings and personal stories:

[P]opular music—all music—exists *only* by virtue of people’s, our, desire for, imagination, and creation of it. And then it exists in rich, complex, and intimate relation to us, calling out for images and discourses that take us deeper into its mysteries—the mysteries of our passions and entanglements in it, all of which begin and end in imagination. Anything less imaginatively or less musically conceived is unequal to the task and to our object, which is after all nothing less than music. (Hubbs 2008, 233)

Appendix: Listening Challenge

In **Examples 11–13** below I have provided mp3 files with the following content:

- Example 11: the fourth iteration of the cycle looped, piano alone;
- Example 12: the fourth iteration of the cycle looped, piano with inserted ride cymbal; and
- Example 13: the fourth iteration of the cycle looped, piano with inserted ride cymbal and snare drum.

Readers can listen to any one of these tracks in isolation or combination to challenge themselves to (1) hear the placement of the other parts, or (2) develop their own interpretation of the meter. Conversely, one can listen to Example 13 while viewing [Example 6](#) (9/8, 9/8, 6/8) or [Example 7](#) (12/8) to see if such realizations match or diverge from one’s own metrical understanding.

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Web Sites

(all web sites last accessed December 2012)

- 8N (http://www.8notes.com/school/riffs/piano/radiohead_pyramid.asp), "Pyramid Song Piano Tab"
- FB (<http://www.facebook.com/topic.php?uid=6979332244&topic=5330>), "Time Signature in Pyramid Song???" [web site no longer active]
- FH (<http://www.freehandmusic.com/sheet-music/pyramid-song-290128>), "Pyramid Song (Digital Sheet Music)"
- GPL (<http://www.greenplastic.com/lyrics/pyramidsong.php>), "Radiohead Song Lyrics and Info" [web site no longer active]
- GPT (<http://www.greenplastic.com/lyrics/tabs/pyramidsong.txt>), "Radiohead Pyramid Song (Piano Tab)"
- MG (http://mortigitempo.com/really_bored/index.php?/topic/78491-what-do-you-count-pyramid-song-in/page__st__40), "What Do You Count Pyramid Song In?" [web site no longer active]
- PB (http://s53.photobucket.com/albums/g54/dreddnott/music/?action=view¤t=02Piano_0001.png), "Pyramid Song"
- PS (<http://www.youtube.com/watch?v=Ydc2HYjhO20>), "Pyramid Song 4/4 Explained." [web site no longer active]
- PS2 (<http://www.youtube.com/watch?v=zbKQPqs-cqc>), "Pyramid Song"

RM (http://www.rockmagic.net/guitar-tabs/radiohead/pyramid_song.btab), “Pyramid Song Bass Tab”

SF (<http://www.songfacts.com/detail.php?id=1524>), “Pyramid Song by Radiohead”

WP (http://en.wikipedia.org/wiki/Pyramid_Song), “Pyramid Song”

WPS (http://en.wikipedia.org/wiki/File:Pyramid_Song_for_Wikipedia.jpg), “Pyramid Song for Wikipedia”

YT (http://www.youtube.com/comment_servlet?all_comments=1&v=cqP0WNpojFM), “Radiohead — Pyramid Song”

Footnotes

1. Research for this article was completed during a sabbatical year spent at the University of Oxford. Gratitude is firstly offered to Martin Stokes, Noel Loble, and the graduate students in ethnomusicology at St John’s College for providing such a warm and stimulating environment. While in Oxford I also benefited from the institutional support of St John’s Research Centre and its director, Linda McDowell, as well as numerous conversations with Dai Griffiths at Oxford Brookes University. I would also like to thank Yonatan Malin and two anonymous readers at *Music Theory Online* for their collective careful eye and guidance, and my colleague John Roeder for further help.

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2. For an overview and synthesis of the ways ambiguity has been discussed in the music theory literature, see [Butler 2006](#), 121–23. Other realms of ambiguity that combine with music in the creation of the commodified pop/rock CD (a product that relies on liner notes, packaging, and advertising) include photography, especially of men and women ([Sontag 2001](#)), language ([Pinker 2008](#), 175–85), and symbolic imagery ([Jung 1997 \[1950\]](#), 203–84).

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3. David Huron in a work on anticipation makes it clear that such engagement requires the listener “to be challenged, not simply pampered” (2006, ix; italics in original); in a similar vein, a large part of the Beatles’s success has been credited to the “vagueness” of their lyrics ([MacDonald 2005](#), xii).

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4. These perspectives include human evolution ([Brown et al. 2000](#), 12), Western rock music analysis ([Moore 2001](#), 37), cross-cultural or “world music” studies ([Tenzer 2006](#), 22–5), early childhood development ([Mazokopaki and Kugiumutzakis 2009](#), 189), and human biology ([Osborne 2009](#)).

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5. Two passages from Butler’s work that clearly illustrate this viewpoint are as follows: (1) “Much of the significance of ambiguous structuring in electronic dance music, however, lies in its potential for drawing the listener in. Rather than demanding a particular way of hearing for the listener, passages such as the one heard in example 3.2 encourage each of us to seek out our own preferred interpretation — to actively participate in the construal of our musical experience” (2006, 127); and (2) “[M]etrically ambiguous sections encourage the listener to construe the meter actively rather than absorb metrical information passively” (2006, 137; italics in original). While not directly acknowledged in this work, Butler’s theory is bolstered by Justin London’s idea of “meter as a kind of attentional behavior” (2004, 9–26). The idea of meter as embodied experience has also been explored more recently in connection with other forms of dance/popular music ([Attas 2011](#); this research is openly indebted to [Hasty 1997](#)).

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6. For representative examples of this work, see [Lewis 1992](#), [Lewis 1994](#), [Hills 2002](#), and [Pickering 2010](#).

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7. With degree of accuracy dependent on the artist, publisher, and transcriber, Allan Moore has noted (at least in the past)

that published scores are “notoriously inaccurate as a coded version of the sounds heard” (2001, 61). In the case of the “official” notation of “Pyramid Song” sanctioned by Radiohead’s record label, the work was carried out by an editorial team, not by members of the group.

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8. Radiohead also released *I Might Be Wrong: Live Recordings* (2001), a collection of live tracks recorded during a European and North American tour taken primarily from *Kid A* and *Amnesiac*, and a collaborative remix album of *The King of Limbs* titled *Radiohead TKOL RMX 1234567* (2011).

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9. Further biographical information is readily available on the web (various fan and Wikipedia sites) and in print sources (see, as examples, [Hale 1999](#), [Paytress 2005](#), [Clarke 2010](#), and [Randall 2011](#)).

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10. Thom Yorke has also collaborated on the artwork, disguising his input under the pseudonyms The White Chocolate Farm, Tchock, Tchocky, and Dr. Tchock.

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11. A complete (unofficial) list of Radiohead lyrics can be found at: <http://www.greenplastic.com/radiohead-lyrics/>.

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12. Such practices have continued on through their recent release, *The King of Limbs* (2011). In the *Rolling Stone* review by Jon Dolan, he comments (in reference to the track “Codex”): “Maybe it’s about a drowning, maybe it’s about a swimming lesson. The fun is not knowing. Taking the plunge into this band’s mysteries is one of rock’s true pleasures” (2011, 62).

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13. Like many others, I have attempted to identify these charts but have found no constellations that match any seen from earth.

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14. The context for the genesis and use of the “weeping Minotaur,” as well as its accompanying cartoon character the “toothy Bear” and various interpretations as to their meaning, is found in [Hainge 2005](#), 78–84, [Leblanc 2005](#), 93–96, and [Donwood and Tchok 2007](#) (second essay).

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15. For the truly curious reader, I have correlated the artwork of the special edition book and the standard CD as follows. The first number in each pair is the special edition book pagination, followed by the standard CD booklet page number (an empty space represents a “missing” page in the booklet): 1/1, 2/2, 3/3, 4/4, 5/5, 6/6, 7/7, 8/8, 9/9, 10/10, 11/11 (both pages modified so that subtle differences exist), 12/12 (both pages modified with subtle differences), 13/ , 14/13 (crying Minotaur added in special edition), 15/14, 16/15, 17/16, 18/17, 19/18, 20/19, 21/20, 22/21, 23/22 (booklet image altered), 24/23, 25/24, 26/25, 27/26 (instruction sheet added to booklet), 28/ , 29/ , 30/ , 31/ , 32/ .

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16. Here I have also done the legwork for those who might be interested. The following pairings identify the page of the standard CD booklet and the track from which a text excerpt is provided (remembering that no titles are given anywhere in the booklet): 10/ “Morning Bell/Amnesiac,” 12/ “Packt Like Sardines in a Crushd Tin Box” and “Like Spinning Plates,” 16/ “I Might Be Wrong” and “Like Spinning Plates,” 18/ “Packt Like Sardines in a Crushd Tin Box,” 21/ “Life in a Glasshouse,” 22/ “Knives Out.”

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17. The refrain is one of two “slogans” printed on the back cover of the CD booklet (the other being “spine damaged,” a reference to the condition of the book printed on the front cover of the booklet).

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18. The ondes Martenot, an early electronic instrument named after its inventor Maurice Martenot in 1928, was first made popular by the composer Olivier Messiaen in his 1937 composition “Fête des belles eaux” (Celebration of the Beautiful Waters). The instrument was added to Radiohead’s sonic palette by Jonny Greenwood.

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19. Two other variants of the model cycle are occasionally played, but without changing the feeling of the cycle length or the harmonic rhythm.

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20. This kind of rhythmic ambiguity has been similarly described by the psychoacoustician Ernst Terhardt in terms of “insufficiency of structural information included in the stimulus” (1991, 229).

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21. Spelling and grammar has been cleaned up in some cases, but without affecting the meaning or tone of the response.

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22. While it would be of considerable interest to know who these audiences and/or fans might be in terms of gender, age, place of residence, occupation, and socio-economic class, there is unfortunately not enough information revealed in the entries to warrant such speculation (and personal contact information is not as a rule provided).

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23. In an interview with Alex Ross, Radiohead’s drummer Phil Selway was quoted as saying “there is no time signature [in “Pyramid Song”],” though Ross (and many others) recognize Selway’s shuffling rhythm implying a compound meter standard in jazz (2010, 95 [to be discussed in more detail below]). It is also difficult to imagine how Radiohead could perform a piece with such intricacy and required coordination without any metrical organization.

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24. I thank Dai Griffiths for suggesting the idea of rubato in this context (2011, personal communication).

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25. This analysis matches a listening experience described by Longuet-Higgins and Lee: “In choosing a rhythmic interpretation for a given note sequence the listener seems to be guided by a strong assumption: if the sequence can be interpreted as the realization of an unsyncopated passage, then that is how he will interpret it” (1984, 424).

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26. In Butler’s terms, the entrance of the drums would signal a “reinterpretation of metrical type” (2006, 130).

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27. Dai Griffiths also chose the rhythmic grouping of 3–2–3, 3–2–3, but unfortunately didn’t specify the meter (2005, 164).

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28. This is the meter and instruction noted on the “official” score for “Pyramid Song” (*Radiohead: Amnesiac* 2008), though see comments below.

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29. While I should reiterate that I am not advocating for any particular single metric interpretation of “Pyramid Song,” if one accepts the eighth note groupings of the piano chords in Examples 6 and 7 (5–4–6–5–4) we are presented with a series of note durations with highly complex ratios that are difficult to hear: “[W]e understand notes as being in one rhythmic category or another, rather than merely perceiving them as continually varying. This process of sorting or ‘quantizing’ notes has been demonstrated experimentally as well; when played patterns of alternating notes whose durations are related by

complex ratios (such as 1.5:1 or 2.5:1) and asked to reproduce them, subjects tend to adjust the durations toward simple ratios (such as 2:1)” (Temperley 2001, 25; see also Povel 1981). The note durations 5–4–6–5–4 become 1.25:1, 1:1.5, 1.2:1, and 1.25:1; without any other outside stimuli, it could account for why many listeners hear the first two chords (and the fourth and fifth) as being even in length.

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