

ANALYSING POPULAR MUSIC. MADONNA'S »HUNG UP«¹

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1. Principles

The aim of analyzing music is understanding. The foundations for this understanding should be the music's precise description. Based on such a description, we can draw interpretations that allow us to posit answers to various questions that often arise in connection with music. For example, why has the music been designed in exactly the way it is presented to us? How does a certain song elicit observable reactions and usages?

In order to describe and interpret musical structures, musicologists have developed a specialized and precise vocabulary for specific dynamic, melodic, harmonic, and rhythmic phenomena. In addition, various tools, primarily different kinds of notation and other visualization methods, have been developed as an aid to overcome the two greatest impediments to analytical listening: the transience of sound and the simultaneity of its many phenomena.

Analysis by means of these specific methods and terms is the core competence of the musicological enterprise, and it is from such analysis that the discipline derives its prerogative to make assertions about music that are founded on the principles of scholarly inquiry. Granted, researchers working in sociology, English, cultural studies, or any number of other disciplines may make vital contributions to our understanding of the production,

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distribution, and reception of music, but such approaches risk treating the actual sounds themselves as a black box whose function remains mysterious. Only the tools of musicological analysis can allow us to draw conclusions about the structure of music.

Nevertheless, our task is not finished with the analysis of this structure. Since there is no »music-in-itself« that exists independently of the listener's consciousness—this would be nothing more than fluctuations in air pressure—the description of musical structures can only form the foundations of our understanding. Our analytical inquiry should by no means end there; any successful analysis of music also deals with people to whom the music means something, and in whose lives it fulfills some (not seldom important) function. Thus, an analyzer of music should count among his skills not only the observation and interpretation of the internal relationships between sounds, but of the relationships between musical structures and their significance in a specific cultural environment.

In the past, however, this has been all too often grossly neglected. Instead, musicological analysis has long been narrowly applied solely to the notes on the page and thus functioned latently as an ideologically tinged tool for social and cultural differentiation. Since the inception of the musicological discipline, it has served as a means to ennoble its supposedly autonomous object as aesthetically and culturally valuable (by demonstrating its complexity, originality, innovation, depth of expression, organic development, etc.). The analysis of notated music—and nothing else was analyzed—was always connected to the legitimation of music as art within the context of bourgeois culture. At the same time, music that did not match this aesthetic, and thus especially the music of other cultures or lower social classes, was depicted as inferior and thus delegitimized along with its listeners.

The reception of music as art—interpreting it as the expression of meaning or experience achieved through the interplay of carefully configured parameters—is only *one* approach to music, only *one* dimension of understanding. Granted, musicologists may find this approach especially appealing and sophisticated, but it is not the most fruitful path in examining the production, dissemination, and everyday reception of many pop songs. Therefore, a cultural studies orientation became the norm early on in the academic study of popular music. This approach does not reduce music to an »autonomous« work of art, but rather examines it more generally as cultural behavior of people in a particular society. If we do not want to reduce our understanding of this kind of music to its artistic dimension, but rather seek to view it through a wide-angle lens that captures its cultural mean-

ings, then we must apply our analytical tools to the questions of how the particular construction of a piece of music allows it to take on meanings and fulfill important functions in the lives of its listeners, and why listeners are attracted to it.

It is essential to keep in mind that music does not have just *one* fixed meaning that we are meant to identify (even if musicians and fans still routinely peddle this notion along the lines of, »This next song's about...«). Rather, music takes on meaning in specific situations through »musical activity« (»musikalisches Handeln«, Blaukopf 1984: 18)—such as playing, composing, listening, dancing, reflecting on, disseminating, and selling music. Thus, in various situations music is ascribed various meanings, which deserve equal attention in musicological analysis. The notion that the various meanings and uses of music warrant equal consideration is actually the result of a significant contemporary transformation in thinking about music. This transformation spurs us to ask new questions. For example, why does a given song in a particular cultural environment draw listeners to the dance floor, win admiration for its perceived artistic merit, inspire listeners to sing along, provoke thoughtful reverie, or all of the above? Why do some songs serve as the soundtrack to summer parties, a way for youth to differentiate themselves from their parents, or the anthem of a social movement?

The analysis of music is always rooted in the premise that the behaviors that a piece of music incites are somehow related to the form and substance of the music rather than arbitrary reactions. This relationship is not merely a matter of cause and effect; rather, any meaning ascribed to a piece of music is influenced by numerous, but never completely enumerable, individual and shared social and cultural predispositions, which account for differences as well as similarities in the way that meaning is assigned. Of course, the question of authorial intent is enticing, but we should not place too much weight on it: There is nothing in the foregoing principles to suggest that we should not also pursue interpretations that cannot be supported by a performer or composer's own statements. On the one hand, such statements are unreliable, and on the other hand, artists may change their stories, or multiple collaborators (a common scenario in popular music) may offer contradictory narratives. In any case, authorial intentions and audience interpretations can only correspond when musicians and listeners share a basic culturally determined interpretive framework.

Thus, the object of analysis is never the sound of music alone, but always its context as well. Whether a contextual aspect is of interest depends on the insight the analyzer seeks to gain (cf. Obert 2012: 11f.). Analyses that explain the development of genres require one type of information,

whereas analyses focused on music theory, ethnology, sociology, or the critique of ideologies require others.

While analysis is aimed at understanding, a pop song as a whole can only be interpreted and not »understood«, certainly not in any »definitive« or »exhaustive« sense. It contains no unambiguous meaning that can be decoded in a single correct manner. Yet the efforts to understand described in the foregoing are not unscientific; they result in something more than an individual statement of opinion. The analytical process is *scientific* as long as it is undertaken in awareness of the current state of scholarly discourse, relies on coherent arguments, and exposes itself to examination by revealing its methods, sources, motivations, and subjective position. Given these requirements, the substantive *value* of any such work, then, depends crucially on the questions posed and their relevance.

In summary: musical analysis should not be applied as an end in itself, but rather as a *tool* for examining human interactions with (popular) music. The principle approach of musicology remains to examine the sound of music first and foremost as precisely as possible and to illuminate the ways in which its musical structures provoke certain impressions, interpretations, and behaviors within a specific cultural environment while making others less likely. This is a contribution that musicology alone can add to the multitude of voices in this discourse, thus generating insights into how our culture functions and how it changes (cf. Doehring 2012; Appen 2015).

In the following, we will propose some methodological approaches to analysis based on the foregoing principles. Although there is not enough space to present a comprehensive analysis in a chapter like this one, we will at least illustrate how these principles can be applied to a concrete example. Madonna's *Hung Up* (2005) is suitable for this purpose precisely because it lacks the structural complexity that might lead us to become so mired in an formal and harmonic analysis that we lose sight of the important social functions and meanings the song has for its audience.

2. Methodology

The saying, »there are no second chances for a first impression« also applies to musicological analysis. Since the analyzer of a song will listen to it many times, each time automatically losing sight of the whole by concentrating on one single parameter, it is advisable to give the song a first listen that is as unencumbered by analytical considerations as possible. We will never have another chance to listen as (in the best sense) ingenuously as we do

the first time, thus we should take note of our impressions on that first listen. Associations, feelings, spontaneous judgments, the perceived mood of the song, and above all that which surprises us and seems unique are worth writing down, because we are unlikely to be surprised again on second listen. These initial listening notes will serve as an important reference for the following stages: the detailed description of the music and then, finding answers to the initial questions that guide our analysis.

In order to precisely describe a given piece of music, we should let the etymology of the word »Analyze« guide us. To analyze something is to dissect it. Accordingly, we will deal with each musical parameter separately, sequentially investigating the song's formal structure, harmony and melody, rhythm, sounds (instrumentation and production), and lyrics before examining the interplay of these elements. The first step for each parameter is to sketch out the respective substance of the song: by creating a table to depict the formal structure, and by transcribing harmonic progressions, central melodies, rhythmic patterns, as well as the lyrics. It is also necessary to describe the timbral qualities of the instrumental and vocal components as well as production techniques employed to treat and integrate them. Yet even at this stage, our sketches will include judgments that only appear to be objective realities. Merely identifying a formal structure (does *Please Please Me* by the Beatles follow an AABA or Verse-Chorus form?) or a tonal center (is Lynyrd Skynyrd's *Sweet Home Alabama* in the key of D or G?) is an act of interpretation. While we should justify our interpretation based on solid evidence and coherent arguments, we must remain conscious of the fact that such qualities are ambiguous and depend on a subjective listening experience.

A few heuristic questions will serve to allow such observations to take on meaning or to help us understand and explain the interpretations of third parties (cf. Moore 2012, chap. 11 for many other questions that can serve as a starting point):

- To what extent does the song follow stylistic conventions, and in what respects does it diverge from them? What is unusual or atypical? How does the song play with our expectations? How does it defy our expectations? Why?
- Can relationships between the analytical observations and the impressions and idiosyncrasies captured in our initial listening notes be identified? How can impressions of, for example, calm, order, surprise, uncertainty, warmth, exuberance, aggression, etc., be attributed to harmonic, melodic, or production decisions?

- What is the relationship between the lyrics and the musical composition? Or is there no recognizable relationship? To what extent can musical parameters be interpreted as illustrations or interpretations of the text? Are there contradictions between the lyrics and musical aspects of the song? How can we interpret these?
- Our own subjective experience of the piece is an unassailable fact and a necessary point of departure. Objectivity is neither achievable nor desirable when we are dealing with music. However, it is beneficial to remain conscious of the relativity of one's own position and to disclose the concrete circumstances from which it arises. What is my perspective as an analyzer of the piece? What is the biographical, musical, and research context in which I am arguing and interpreting? What would someone else think about that? Would he or she understand my arguments for the interpretation I am advancing? Since the role of the analytical subject has an impact on the process of analysis, these questions must be posed and answered for the reader.
- In order to avoid the methodological problems of introspection, it is advisable to collect documents that allow insight into the use and broad public reception of the piece, such as the conversations of critics and laypeople, forum posts, comments, and individual interpretations, for example on YouTube or SongMeanings.net. On which charts was the piece successful and at what occasions is it played? What do fans especially like about it? What role do the lyrics play for other listeners? What meanings do those listeners discern? Do the producers and distributors promote certain interpretations in liner notes, press releases, interviews, statements or video clips? What strategies were used to distribute and market the piece? Any of these questions may be important depending on the avenue of inquiry, but they should be addressed later in the process, after you have conducted your own analysis in order to gain your own initial insights.
- Other avenues of inquiry may lead to other points of departure: Does the piece employ or allude to historic compositional characteristics? To what extent is the influence of other musicians recognizable? Is the piece referred to in political contexts? What were the (economic, material, or ideological) production conditions? Who earned money from the piece? Who had influence over its creation? Why has the piece been canonized as a masterpiece, or conversely, written off as a flop? What gender clichés does it reinforce or undermine?
- One particularly challenging question, often discussed in the *Feuilleton*, is the contemporary cultural significance of a piece of mu-

sic. Exploring this is doubtless a most interesting and highly relevant task, but one must remain aware of the fine line between speculation (always inevitable) and statements that meet the standards of scholarly discourse. It is tempting to treat the enormous success of a given song as a seismograph for social trends, but the next number-one hit just might offer contrary indications for every social reality supposedly diagnosed by last week's hit. One should never rely on just one piece, but rather maintain critical distance and a broad perspective and always clearly indicate to which segments of the population given findings may be limited.

3. »Hung Up«

Hung Up was released in October 2005 by the major label Warner Bros. in 24 different formats (in addition to the version under analysis here from the album *Confessions on a Dance Floor*, various single and maxi-versions exist). Excerpts of the song had been previewed a month before the release in an advertisement for cell phones (Paoletta 2005: 27). In over 40 countries, the song reached number one on the national sales charts and generated an estimated 35 million US dollars in royalties in the year of its release alone (cf. Wicke 2009: 92f). The composers include Madonna and Stuart Price, who are also credited as producers, as well as the songwriters of ABBA, Benny Andersson and Björn Ulvaeus, whose hit *Gimme! Gimme! Gimme! (A Man After Midnight)* provided a key sample. No session musicians are named in the credits, which suggests a computer-based production by Price and Madonna.

In the lyrics, the protagonist complains of waiting day and night for a call from a person referred to as »baby«, who does not accept calls even though the light in his or her apartment is on. Over the course of the song, the protagonist decides not to wait any longer (see section 3.4 for more on this).

Among the issues we might explore with respect to *Hung Up* are, for example, the reasons behind its enormous success with audiences, the motivation for the use of the ABBA sample and other musical (and visual) references to the disco-boom of the late 1970s, and the cultural significance of this song and/or its success. What musical techniques are employed to reinforce Madonna's image as a strong, independent woman? What makes people want to dance to this music? We will not concentrate on a *single* avenue of inquiry in this introductory essay, but rather propose various possible interpretations of the results of our analysis.

Unfortunately, we cannot recapitulate our impressions upon first hearing the song in 2005, but at least we can describe our own personal connection to the performer in order to make clear the position and perspective from which we are listening and analyzing. We both bought our first Madonna albums at around the age of 11 and followed Madonna's work with interest in the intervening years, although we never became devoted fans or attended a concert. *Hung Up* caught our attention in 2005 because it was so omnipresent in the media after Madonna's supposed »flop« *American Life*. We also noticed the familiar ABBA sample, but we did not pay special attention to the lyrics. Given our profession, our current interest is primarily scholarly. Our *déformation professionnelle* leaves us unable to view the song from the important perspective of fans or everyday listeners. We can only access this perspective second-hand, for example through internet forums.

3.1 Formal Structure

The analysis of song architecture should not stop at mere description. Rather, it is worthwhile to make the song form the *object* of analysis itself. More than just a roadmap for orienting ourselves within the song, the form itself can contain rich potential for interpretation. We should be aware that the song form can reinforce or counteract expressive content such as excitement and boredom, tranquility and impatience, departure and homecoming, order and non-conformity or chaos, change, surprise, satisfaction or frustration. The form can also be interpreted with respect to the functional utilization of a song. Formal elements, such as the length and type of introduction, the amount of lyrics, or the placement and frequency of refrains, allow us to draw conclusions about the uses of the song envisioned by the creators, for example on the radio or at political or dance events. Each divergence from the formal conventions of its genre also calls for interpretation (on the topic of formal analysis see Appen/Frei-Hauenschild 2015 which points to extensive further literature).

For our own orientation as well as that of our readers, it is advisable to begin the analysis by creating a table that offers an overview over the length, function, repetitions, and variations of each formal component. *Hung Up* (the LP version at 5:36 minutes in length) can be divided as follows:

| Time | Measures | Formal Section | Function | Harmony | Notes/Text |
|------|----------|----------------|-----------|----------------------|----------------------------|
| 0:00 | - | - | Intro | - | Clock ticking |
| 0:06 | 4+4+4 | (A') | | d / F / a / d - Loop | Time goes by... |
| 0:29 | 4+4 | | | No vocals, filter | |
| 0:44 | 4+4 | | | Drums | |
| 1:00 | 4+4 | ½ A | Chorus | d / F / a / d - Loop | Ev'ry little thing... |
| 1:15 | 4+4 | B | Verse 1 | d (f c) | Time goes by... |
| 1:30 | 4+4 | B' | Re-Intro | | Time goes by... |
| 1:46 | 4+4+4+4 | A | Chorus | d / F / a / d - Loop | Ev'ry little thing... |
| 2:16 | 4+4 | B | Verse 2 | d (f c) | Ring, Ring, Ring... |
| 2:32 | 8+8 | C | Bridge | B / F / A / d | I can't keep on... |
| | | | | B / F / A / A | |
| 3:03 | 4+4+4+4 | A | Chorus | d / F / a / d - Loop | Ev'ry little thing... |
| 3:33 | 4+4 | - | Breakdown | d / F / a / d - Loop | Ev'ry little thing... |
| 3:49 | 4+4 | | | - | - |
| 4:04 | 4+4 | | | d / F / a / d - Loop | - |
| 4:19 | 4+4 | | | - | Re-Intro |
| 4:35 | 4+4 | so slowly... | | | |
| 4:50 | 4+4+4+4 | A | Chorus | d / F / a / d - Loop | Ev'ry little thing... |
| 5:21 | 4+4+4 | - | Outro | - | Crossfade to clock ticking |

Hung Up employs formal sections that are very common in pop songs: Intro, Verse, Chorus, and Bridge. However, they are arranged in a most peculiar order, as can be seen in the table.

The Intro is conspicuously long, at least on the LP version referred to here. After the opening sound of a clock ticking (a bit more hectic than a real clock at the song's tempo of 126 bpm) Madonna recites twice in the space of two bars the motto »*Time goes by / so slowly*«. Beginning in meas-

ure 5, the bass drum enters, playing on each quarter-note along with the four-bar ABBA Sample, initially processed by a low-pass filter. The filter effect is gradually reduced as the sample repeats until it can be heard in its full frequency spectrum after 44 seconds. This slowly building structure in the Intro is typical for club-oriented electronic dance music (which admittedly usually has a form based on the addition and subtraction of »tracks« rather than a song form based on discrete sections in a specific order). For radio, the Intro had to be trimmed from 28 to 16 measures, and a considerable portion of the clock ticking was also cut in order to condense the song to the typical length of just under three-and-a-half minutes.

Like many pop songs designed for radio airplay, this song introduces the Chorus immediately after the Intro, followed by a first eight-bar verse. Contrary to expectations, this verse is followed neither by a Chorus nor a Pre-Chorus, but by a Re-Intro, that refers to the Intro by repeating the line »*Time goes by / so slowly*« three times while retaining the instrumental accompaniment of the verse. This return to the Intro acts as a brake on the development of the song. The song does not move forward; waiting, the central lyrical theme of the verses and choruses (see 3.4, song text), becomes, as it did during the long intro, part of the listening experience on a formal level. In the eighth bar of the Re-Intro, the drum beat and the synthesizer loop largely drop out, which creates a brief moment of tension, which is resolved by the following chorus. After the second iteration of the Chorus-Verse progression, the listener is surprised by new material: Instead of the expected third Chorus, or another Re-Intro, a formal section appears which, despite its atypical placement after a Verse, is properly identified as a Bridge due to its contrasting harmonic progression, its departure from the established harmonic landscape, its harmonically opening ending, and the turning point in the lyrics. At this point, after over two-and-a-half minutes of harmonic stasis, the song demands renewed attention. After one further chorus, the radio edit fades out. In the LP Version, a slight »unraveling« of the Chorus leads to an extensive Breakdown of the type that occasionally appears in rock and pop songs, but which alludes to club music due to its length of over 30 seconds. In the Breakdown, the ABBA sample, and with it the harmonic movement, drop out. With the exception of the bass drum, everything comes to a standstill. Dancers get a chance to catch their breath before the excitement rebuilds: the individual drum and synthesizer tracks are reintroduced through gradually opening filters, and looped vocals reappear. In addition to the stylistic and socio-cultural allusion to the club, the breakdown also fulfills a semantic function. The lack of motion and the vocals, looped to sound like a record player caught in a groove on the phrase

»*so slowly*« (a subtle reference to DJ culture and the records produced with locked grooves for use by DJs) evoke the sense of standstill, sharpening the listener's awareness of different ways of experiencing time and luring his attention toward the vocals. By virtue of the mechanical repetition, these devolve into mere sound, devoid of their original meaning, which invites contemplation—an oasis of tranquility in the song. For dancers, the thinner texture characteristic of breakdowns (see Butler 2006: 91f and 325) serves to suspend the conduciveness of the song to dancing, resulting in a state of waiting. Tension builds as the breakdown leads the waiting dancers toward the musical resolution of this state. The return of the chorus puts an end to the standstill and the dancers can, finally, get back to business. After the ultimate chorus, the song ends like it began, with a clock ticking.

3.2 Harmony, Melody, and Rhythm

It follows from the principles set forth above that the description of melodies, voice leading, rhythms, and meter as well as the interpretation of harmony using abstract systems can answer questions that go far beyond the merely theoretical. Such descriptions can also play a key role in explaining the observable effects of music. In addition, music-theoretical terminology can help us recognize and name stylistic conventions and idiosyncrasies. Psychological research on the nature and mechanisms of perception also holds much potential to buttress the scientific foundations of music theory. Allan F. Moore (2012), for instance, very fruitfully applies concepts from psychology and cognitive science to musicology such as *ecological listening*, *embodied meaning*, and *cross-domain mapping*. Some work along these lines has been completed with respect to rhythm (Danielsen 2006, 2010; Pfeleiderer 2006), less with respect to melody and harmony. US-American music theorists have made the greatest efforts to interpret the harmonic characteristics of and the relationship between harmony and melody in various genres of pop, and to describe their historical development. This work has been based partly on the theoretical models created to analyze traditional western art music, partly on jazz theory, and partly on ethnomusicological research on Afro-American music (Moore 1992 and 1995, Stephenson 2002 [Chap. 2-5], Ripani 2006, Everett 2007 and 2009 [Chap. 8-11], Doll 2007, Tagg 2009).

The Chorus, Intro, and Breakdown of *Hung Up* are based on the harmony of the four-measure ABBA sample, which makes D the tonal center (although the tempo was raised from 119 to 126 bpm to match the higher tempo of modern electronic dance music, this was achieved without raising

the pitch). The harmony and melody do not make use of the tension created by leading tones and thus do not lend themselves to analysis according to functional harmony. The diatonic sequence of notes used in the song is derived from the D-Aeolian scale. Accordingly, the chords arpeggiated in the melody of the sample, D-Minor / F-Major / A-Minor / D-Minor can be interpreted as corresponding to the scale degrees $i / III / v / i$. The mediantic chord progression has a circular character (all the chords contain the note A), which allows, or, rather, demands constant repetition. The chord roots ascend by thirds according to the scale of the key, and the descending perfect fifth from v to I along with the extended anacrusis of the ABBA sample pave the way for a new repetition.

By contrast, the verses are accompanied by a one-measure monophonic synthesizer figure which remains on D during the first half of the measure and then, for the duration of one quarter note each, moves to the third and seventh scale degrees (see notation figure 3 on p. 14). The way that the music »clings« to the tonal center may help create the impression of being trapped or being at an impasse, but it also serves to create a harmonic »zero level« from which the Chorus and Bridge can launch to more impressive effect. The harmonic simplicity of *Hung Up* is typical for contemporary dance/pop productions while ABBA's *Gimme! Gimme! Gimme!* is much more harmonically complex.

Relative to the Chorus, the Bridge replaces the D-Minor chord with the major mediant chord, Bb-Major, and the A-Minor chord with A-Major ($VI / III / V / i$, the last iteration ends unresolved on the scale degree V). The sample is removed and a new vocal melody is introduced, creating a clearly contrasting section that evokes a dominant-major-tonic tension for the first time ($sP / tP / D / t$). The harmonic construction of the Bridge can be explained as a songwriting tactic in which a new harmonic model is introduced to avert boredom. Furthermore, the fact that the Bridge establishes a conclusive harmonic framework also supports a semantic interpretation; both the lyrics and the music in the Bridge reflect the strength of the protagonist's resolve to stop waiting. It is clear that she will follow through.

Bridge

Chorus

Notation figure 1: Bridge (2:32-3:03)

Further melodic and rhythmic analysis of the Bridge strengthens the case for this interpretation: The vocal melody opens on the note Bb4 over the Bb-Major chord. This first appearance of the sixth scale degree creates a sense of escape from the largely pentatonic material of the melody up to this point. As the apex of the entire melody, the Bb4 appears exactly on/at the decisive turning point in the lyrics. While the protagonist has been passively waiting for her partner to act, she now resolves to take control of her own fate (*»I can't keep on waiting for you«*). The strength of the protagonist that the lyrics hint at is emphasized rhythmically by the first appearance of a half-note on the word *»I«*, which is then repeated throughout the Bridge on half-notes or rhythmically repeating quarter notes with conspicuous steadfastness and certainty (measures 1 and 5 of the Bridge). The protagonist's counterpart is portrayed much differently, with loose melisma on the word *»you«* in measure 4. The longest melisma is applied in bars 6 through 8 to the word *»hesitating«* which shuttles indecisively between G4 and A4. Rather than resolving clearly on the root, this melisma remains melodically open, ending on A4. The Bridge also ends cleverly: the last phrase, *»but it'll be too late«*, is delivered almost spoken and ends—literally too late—in the first measure of the following Chorus.

We can find further melodic techniques that invite semantic interpretation in the verses. The first phrase (beginning in measure 1, see notation figure 2) moves from the root down a fourth and back—a movement that may symbolize restlessness and, especially given the stiff rhythm of the vocal melody in the first measure, evokes a pendulum, the ticking of a clock, or the onomatopoeic clock imitation *»tick tock«*. The monotony of waiting (*»Time goes by so slowly for those who wait«*), followed by a rest of more

than half a measure, is illustrated musically. Through the quarter notes and the syncopation in measure 2, the phrase does contain movement (thus the impression of restlessness and impatience), but it does not, as a whole, progress toward any particular goal, just as the harmony in the eight measures of the verse persists on the i chord with brief deviations to the III and VII chords. The desire not to lose any more time («No time to hesitate») is also expressed through the start of this phrase a beat-and-a-half early. In the third phrase (beginning in measure 5) the pendulum motion is replaced by movement that traces the ambitus of a minor third up and down. The small ambitus may symbolize the feeling of being trapped («I'm caught up»). Each 3-5-4 motif falls on a line that expresses a realization («I'm hung up», «I'm caught up») that seems stirring in its rhythmic and melodic instability.

Verse

5 Time goes by so slow-ly for those who wait No time to he-si - ta - te

Those who run seem to have all the fun I'm caught up I don't know what to do -

Notation figure 2: first verse (1:15-1:30)

Despite the non-traditional structure of the melody, it is simple, and its subdivision into phrases makes it memorable and not too challenging. With its small ambitus and ideal range placement, it invites the listener to sing along—important considerations for a song that seeks to become a hit single.

On a rhythmic level, *Hung Up's* continuous quarter-note bass drum («four-on-the-floor») and syncopated hi-hat pattern are obviously derived from 1970s disco. This pattern's effectiveness for mobilizing dancers is well established and it has become a regular fixture in electronic dance music. The way the up-beats are emphasized on the hi-hat is conspicuous in this case, however. While in Disco the hi-hat is often accented on the up-beats (every other eighth note) (e.g. in *Disco Inferno* by The Trammps or *TSOP* by MFSB) or on the »and« of 1 and the »and« of 3 (the second and sixth eighth notes) (as in *Le Freak* by Chic or *Night Fever* by the Bee Gees), *Hung Up* employs a distinctive pattern (see notation figure 3).

work by trial and error, and many are loathe to reveal their production secrets, which are what set them apart from their competitors. Even when it is possible to research which programs and compressors were used with which settings, (in the case of *Hung Up* this information can be found to some extent in trade magazines; cf. Doyle 2008; Stüttgen 2006) simply identifying them serves little unless it helps answer more relevant questions. Of greater importance are the intentions that led to a given sound design, and the effects that they produce in the listener: What aesthetic goals are being pursued, what functional conditions (such as the use of the song in discotheques) were taken into consideration, what role did sales considerations play? How does the sound design impact the effect that the song has on listeners (and on us as the analyzers)? In what way does the sound influence our imagination of the setting in which the protagonist of the lyrics finds herself (cf. Moore/Schmidt/Dockwray 2009)? What techniques make a production sound warm and »natural« (such as *Sunrise* by Norah Jones), while another sounds cold, inhuman, and alienated (such as *In a Hole* by The Jesus and Mary Chain)?

Especially in light of the commercial failure of the preceding album, *American Life*, we can assume that market considerations played a role in the production and sound design of *Hung Up*. As the lead single, the song was released in multiple formats (including as a ring tone) a month before the album (single release date: 17 October 2005; album release date 15 November 2005). In order to maximize the song's market appeal, the producers had to create a sound design that allowed a large number of listeners to identify a distinct »sound« within the context of their listening histories without sounding too »old«, which would have contradicted the conventional logic by which music is made for the charts. The ABBA sample is probably familiar to most listeners over the age of thirty in the Western Hemisphere, which also happens to be demographic category most likely to pay for albums and concert tickets. Since Andersson and Ulvaeus, the songwriters for ABBA, had not previously licensed any of their music for sampling, *Hung Up* managed to sound simultaneously innovative *and* familiar to listeners even on the first cursory listen. Thanks to the sample, the song stood out from the sea of new releases and thus quickly gained the attention of a significant audience. The singer, who has worked hard to establish her image as an artist capable of transformation, and whose world tour the prior year happened to be called the »Re-invention Tour«, linked the disco-era to the electronic dance music of the 21st century through the sound design (and visually in the accompanying video and CD booklet as well). Through this sound, she not only demonstrates her decades of expertise in

dance music of all kinds (while also demonstrating a consistency, and thus recognizability, that is essential for the public perception of her as a media figure, irrespective of her much-vaunted capacity for transformation), she also makes it possible for a broad spectrum of listeners to identify with the song through one aspect or another of its sound. The instrumentation and sound design offer younger listeners who are more familiar with contemporary pop and electronic dance music than with ABBA a listening experience that they can transfer to their own contexts. For example, the »pumping« bass and bass-drum sound, typically produced through a technique known as side-chain compression, is tailor-made for clubs and discotheques. Given the instrumentation and the sounds, many listeners might discern in the galloping rhythmic figure an echo of Ricardo Villalobos' club hit *Dexter* from 2003 (around which time the production of *Hung Up* likely began). Older listeners might find the string sounds in the Bridge reminiscent of Giorgio Moroder.²

But the action is not solely taking place within the club-ready bass spectrum. The higher frequency ranges also contain numerous production ideas that help the music sound interesting on smaller playback devices (laptops, car stereos, or cell phones), which reproduce low frequency information weakly or not at all. In particular, Madonna's voice—or voices, to be precise, since the song contains multiple vocal tracks which were processed in various ways—reflects the creative application of tremendous sonic resources in the form of numerous reverb and delay tracks as well as of equalizers, compressors, aural-exciter, and pitch-shifter software typically used in contemporary productions. Thus, she still sounds interesting on repeated listens. Although the skillful application of these technologies leaves her sounding highly artificial, this conforms to the sonic norms of the genre.

In this regard, it is also conspicuous that the programmed drumbeats contain numerous different hi-hat sounds. The Verses and the Bridge contain, in addition to the sounds of open and closed hi-hats, an additional short, tinny cymbal sound in the mid-frequency range on the last eighth note, panned hard right in the stereo image. In the first and second Chorus, a hi-hat sound that is considerably higher in frequency appears in the same rhythmic and spatial position. In the Chorus after the Bridge, the high frequencies on this sound are boosted yet again, and the sound is positioned in the center of the stereo image. We can presume that these variations in the

2 As Madonna remarked: »Our intention was to give a nod and a wink to people like Giorgio Moroder and the Bee Gees. Stuart and I didn't want to remake the past, but make it into something new« (in Paoletta 2005: 27).

upper frequency range are there to counterbalance the unyielding bass-drum quarter notes and offer variety.

Given the immense effort expended on sonic treatments and ornamentation, as well as the effect that the resulting sound can have on the listener, it is important to recognize that sound and production are essential material for analysis and to examine them accordingly. Simply describing *Hung Up* as »nothing more than a 4/4 bass drum, filter sweeps, and an ABBA sample« (Petras 2011: 119) does not adequately address these issues. At the same time, there is no need to overemphasize the analysis of sound production while dismissing the other parameters as negligible, as Peter Wicke does in his analysis of »Hung Up«. ³

3.4. Lyrics

The chief hazard in the analysis of lyrics is the risk of overlooking their poetic character and reading them literally as prose. When language is structured as it is in song lyrics, we must absolutely view it in relation to its form and not just the meaning of the words. A well-founded analysis of lyrics is thus not confined to the recapitulation of the content and the interpretation of metaphors, but goes further to examine interpretations made possible by the structural arrangement of the language within the composition. The length of verses, the rhythm of the language and rhymes, the sonic sensuality of vowels and consonants, alliterations, anaphora, repetition, the level sophistication or formality of the language, and many other stylistic devices can inspire semantic interpretations in addition to their aesthetic effects (see Griffiths 2003). It is also very important for an analyzer to develop a sense for when lyrics express clearly identifiable statements and when they intentionally leave space for interpretation by the listener. For instance, it remains unclear why the »you« addressed in *Hung Up* is so reticent, and the genders of »I« and »you« are also not specified. To hastily assign »I« the female and »you« the male gender would be to overlook a conspicuous point of ambiguity, which is no insignificant detail given Madonna's popularity in LGBTQ scenes. Even when we do settle on a particularly con-

3 »The song's peculiarity, and thus its unmistakability, comes not from structural parameters such as melody, meter, and rhythm, but from the sound design, that is, from the way in which the relatively simple loops that make up the whole are actually made to sound [Seine Eigenart und damit Unverwechselbarkeit erhält das Stück jedoch nicht durch die strukturellen Parameter von Melodik, Metrik und Rhythmik, sondern durch das Klang-Design, also durch die Art und Weise, wie die relative simplen Loops, aus denen sich die Klanggestalt konstituiert, tatsächlich zum Klingen gebracht sind.]« (Wicke 2009: 95).

vincing interpretation, we should keep in mind those areas where the lyrics are left so indeterminate that individual interpretations may be substantiated based on evidence but never advanced as the one true meaning.

Along these lines, *Hung Up* offers openings for interpretation of its linguistic composition. For example, it is hard not to notice the frequent identical repetition of individual words or phrases that illustrate the monotony of waiting (»*Time goes by so slowly*« is repeated a total of 14 times), »*so slowly*« is repeated an additional 13 times; many more repetitions occur in the Chorus before the Breakdown and in the final Chorus). In addition, the lyrics include a striking number of repetitions of individual words (»*ring ring ring*«) or sounds (for example in the onomatopoeic reference to the ticking of a clock (»*Tick tick tock it's a quarter to two*«). A deliberate compositional technique can also be seen in the antithetical parallelism of »*I'm hung up / I'm hung up on you*« and »*I'm fed up / I'm tired of waiting on you*« or, in the second verse »*I'm done / I'm hanging up on you*«, which includes the play on words: *hung up / fed up* and *to be hung up / to hang up on someone*. The parallelism draws attention to the development from passive suffering in the first verse to taking action in the second. The wordplay may inspire contemplation of just how closely passionate devotion can sometimes lie to angrily calling it quits. Or, perhaps these puns are only there to entertain us.

The lines of the first Verse, »*Time goes by so slowly for those who wait*« and »*Those who run seem to have all the fun*« are self-quotations from *Love Song*, Madonna's 1989 duet with Prince, in which they were delivered in almost exactly the same rhythm. In addition to their semantic function within the narrative of the song, they play the postmodern game of references, quotes, and samples that is a hallmark of contemporary pop culture. Madonna learned to exploit this technique in her videos in the 1980s (e.g., *Material Girl*) and continues to apply it liberally in her live shows. It serves to present Madonna as an ironic (perhaps even self-mocking) and distanced insider in hip scenes and allows those who recognize the quotes an opportunity to identify with her. Fans might recognize another point of continuity in the work of a beloved artist beyond her enduring competency in the area of dance music.

An additional level of meaning reveals itself to listeners who not only can identify the ABBA sample, but who remember the lyrics of the original as well. The ABBA song also tells of a woman who waits longingly for a man (though not a particular man) so that she does not have to spend the night alone. While the protagonist of the ABBA song appears helpless and passively endures her loneliness until the end, the protagonist in *Hung Up* de-

clares an unwillingness to accept the unsatisfactory situation any longer, acts accordingly, and at the beginning of the Bridge emerges as a winner who can find her own way. This can definitely be interpreted as an emancipatory statement about the protagonist of the song. It is just as possible to ascribe this feminine strength to Madonna, the performer, given that she has worked to convey such an image since the beginning of her career.

Finally, any analysis of lyrics must include consideration of just how exceptional the process of analysis is: Neither someone dancing to *Hung Up* nor someone listening on the radio is likely to perceive all the nuances of the lyrics. To begin with, a large portion of the audience does not speak English as a native language, and many more will simply be more occupied by concerns other than a close reading of the lyrics. Nevertheless, the textual aspects of songs do offer opportunities for interpretation, which may be exercised depending on the situation and the listener. The more people are able to relate to the sung lyrics (for example by integrating catchphrases such as the easy-to-remember closing lines of the Verses or the title into their everyday lives), the more popular, and thus marketable a song will become. Even when a song is merely designed to fill dance floors, its success still depends on whether it makes effective use of language toward that end.

4. Conclusion

Using the example of »Hung Up«, we have shown how analytical methods can be used to understand the impressions, reactions, and perceived meanings that music inspires in us and in others. To this end, we observed and interpreted the interplay of individual musical and textual parameters, a process that often resembled the analysis of an art song. Indeed, if this example has made anything clear, it is that there is no reason not to treat *Hung Up* as an art object. Using the tools of musicological analysis, we were able to make a clear case that the song offers a musical expression of the experience of waiting, as well as liberation from waiting, and we can now offer this as *one* interpretation among many to other listeners. It should also be clear at this point that listening to music as art only captures one dimension; the song can also be heard as dance music⁴ or as an occasion to

4 »The first time I heard the album version, I was like ›Why choosing clocks, phones and ABBA samples for a first single? What is Madonna thinking?‹ After buying this single and hearing it loud at home, I could not stop dancing [...]. There is a feeling of ›Letting [sic] go, forget your problems, feel free‹, not easy

recapitulate one's own listening and musical experiences⁵. As an industrial product created in the pursuit of maximum profits, the song must necessarily be capable of meaning different things to different target audiences and fulfilling different functions. Analysis can help to explain how this works as long as it does not isolate the work as an autonomous creation, but also takes the interplay of social, psychological, aesthetic, and economic parameters into consideration. If we forego musical analysis, then we relegate the music itself to the status of an arbitrarily fashioned accessory of a product and its reception.

Scholars of popular music have long called for the integration of this insight into musicological pedagogy at the school and university level (cf. Jost 1986: 37), but this has hardly been universally achieved. Another desideratum for scholarship in this area is the strengthening of analytical methods that do not depend on notation. Traditional notation is indispensable for the visualization of diastematic, harmonic, and rhythmic relationships, but cannot adequately capture many essential aspects of electronically produced music. This applies both to micro-rhythmic phenomena (»drive«, »swing«, and »laid back« playing), as well as any singing that is not limited to 12 discrete tones, and especially to anything that can be described under the rubric of »sound.« Here, we must find other means to visualize and discuss sonic phenomena. Programs like the Sonic Visualiser designed at the Center for Digital Music at Queen Mary University of London (<http://www.sonicvisualiser.org>) are an important move in this direction. They will help expand the relatively small, rock-oriented repertoire of written analyses into the realm of purely electronically produced music (cf. Doehring 2015 and Rappe 2010).⁶

For a rather long time, analysis has primarily been applied to art music. Considering the above, the expansion of musicology's fundamental method

to describe everytime you hear it and dance to it. Even after, you will find yourself saying ›Time goes by, so slowly, so slowly, so slowly...‹ » (from a customer review on Amazon.com, http://www.amazon.com/Hung-Up-Madonna/product-reviews/B000BRD6GC/ref=cm_cr_pr_btm_link_next_3?ie=UTF8&pageNumber=3&showViewpoints=0) [accessed on 1 September 2011].

5 »Hung up can be best described as nostalgic bliss, that will transport you back to the time of platform boots and flares. [...] You will honestly feel like you have gone back in time« (from a customer review on Amazon.com, http://www.amazon.com/Hung-Up-Madonna/product-reviews/B000BRD6GC/ref=cm_cr_dp_see_all_summary?ie=UTF8&showViewpoints=1) [accessed on 1 September 2011].

6 Michael Rappe (2010) achieves this in exemplary form in his analysis of Missy Elliott's *Work It*, for which he created a detailed score of record scratches, samples, and other DJ techniques.

of understanding the structure of a sound to current popular music will strengthen the standing—often questioned—of musicology as a relevant discipline in the humanities.

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