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**Happy Harmonies
and Disturbing Discords:
Scott Bradley's Music
for MGM's Cartoons**

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Degree of Doctor of Philosophy (Music)**

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March 2015

Abstract

The musical scores of composer Scott Bradley for the cartoons of the Metro-Goldwyn-Mayer studio form the basis of this dissertation, which uses close observation and analysis to address some of the pertinent technical and cultural issues that have been raised in the literature of musicology and of cartoon studies. Bradley's collaborations with three sets of directors are discussed separately in order to highlight three academic concerns.

An investigation into the various practical necessities and cultural influences on Bradley's work with directors Hugh Harman and Rudolf Ising sets the historical scene at the beginning of the composer's career. I examine the pervading style of these cartoons and their music in order to reveal some of the personal preoccupations that Bradley's work would exhibit throughout his life. And I interrogate the general musicological approach to the audiovisual pairing and cartoon scoring practices in order to re-evaluate close synchronization as a variegated technique capable of diverse and nuanced effects.

Director Tex Avery and Bradley have independently been considered by various scholars for their adoption of modernist techniques. Their collaboration produced works that challenge the distinction of popular entertainment and modernist art, in a way that is shown to be both multifaceted and difficult to quantify. The position of their cartoons in terms of more frequently recognized modern artforms and its own tradition of slapstick comedy complicate any simple distinction between the two fields.

The directorial team of William Hanna and Joseph Barbera produced cartoons that amalgamated some of the techniques learned from the other animators in this study. As well as being the most famous of MGM's cartoon series, their *Tom and Jerry* cartoons were the most consistent in terms of style. The comic formula of this series is examined from the relatively new academic area of 'comic timing'. I explore the possible effect of a constant musical presence on the audience perception of pacing and thereby add a new perspective to an aspect of comedy that has not before been considered with reference to music.

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Acknowledgements

I am forever indebted to my supervisor, David Code, who has offered untiring support, challenging and insightful criticism, and endless patience throughout my academic career.

I should like to express my gratitude to the staff of the School of Culture and Creative Arts, particularly to John Butt, Martin Cloonan, Nick Fells, Ian Garwood, Louise Harris, Björn Heile, and for their encouragement and advice.

I should also like to express my thanks to the following:

To Edward Comstock, the Senior Assistant Librarian at the Cinematic Arts Library of the University of Southern California, whose exhaustive knowledge of the collections relating to MGM and Scott Bradley allowed me to explore avenues of research that otherwise would have escaped my notice. And to the Musicology Department at USC, especially Bruce Alan Brown, who was so welcoming, and to Joshua Grayson who introduced me to California and made the trip so much fun;

To those attendees of the 2011 Society for Music Analysis and Music Since Nineteen-hundred joint conference at the University of Lancaster who offered insightful questions and comments to the paper on which some of this thesis is based;

And to my family, particularly my husband Tom, without whose support I could not possibly have managed to complete this work.

Author's Declaration

I declare that, except where explicit reference is made to the contribution of others, that this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution.

Introduction

It is something of a tradition to preface studies of cartoon music with a declaration, if not a damnation, of the serious scholarly neglect this field has so far suffered. Ever since Roy Prendergast, in a book whose very title proclaimed film music as a whole to be ‘a neglected art’, claimed that the ‘total inattention’ of even those few previous film musicologists to the cartoon ‘verges on the criminal’, various scholars have launched their books and articles with well-justified complaints that music for cartoons has been relatively under-researched, at least by comparison to music for feature films.¹ By now, however, it seems that such complaints are losing their justification, since cartoon musicology is no longer a neglected field, but a rapidly growing one. The 2010 anthology *Drawn to Sound* - for just one example - features musicological studies of a range of feature-length animated works, including films from major Hollywood studios as well as noted French, Japanese and British houses.

As far as the specific subject of this thesis is concerned, there has always been a modest amount of critical and scholarly commentary on the work of prolific cartoon composer Scott Bradley, both from the composer himself and from other critics and scholars. Indeed, as Daniel Goldmark has noted in one of the most influential recent contributions to the field, until interest in Bradley’s close contemporary Carl Stalling rose in the 1980s, Bradley was the almost exclusive subject of the majority of cartoon music scholarship in print.² Goldmark also points out that, while Stalling tended to base his scores on quotations of pre-existing music, Bradley preferred to compose new material. It seems fair to suggest that this may have been the reason why Bradley’s music gained such singular favour as a subject of research, especially amongst scholars who may have felt the need to justify their choice and promote cartoon music as a worthy object of study.

Even though cartoon music is a growing field, there are still many areas remaining to be explored. In previous attempts to describe Bradley’s compositional techniques within the scope of single articles or chapters, the focus has by necessity been narrower than the three hundred and more cartoons for which Bradley provided music. As Steven Allen has pointed out in what is

¹ Roy M Prendergast, *Film Music: A Neglected Art*, 2nd edn (New York; London: Norton, 1992), p. 180.

² Daniel Goldmark, *Tunes for 'Toons: Music and the Hollywood Cartoon* (Berkeley; London: University of California Press, 2005), p. 44.

possibly the only article devoted to the use of sound in the cartoons of Tex Avery, it is usually Bradley's music for the *Tom and Jerry* cartoons directed by Bill Hanna and Joseph Barbera that has garnered scholarly attention, while Bradley's work for Avery's cartoons remains highly under-researched.³ And even less attention has been given to his compositions and arrangements for the cartoons of directors Hugh Harman and Rudolf Ising - itself a body of work that has, more broadly speaking, largely been ignored by critics and scholars.

While the Hanna and Barbera *Tom and Jerry* cartoons undoubtedly represent Bradley's largest single body of work, there is much to be gained from examining his scores for these other directors, especially given the radically different narrative and visual styles with which they approached the cartoon medium. My study seeks to broaden the scope of Bradley scholarship to encompass all these directors, in order to gain a wider view of the varied nature of this one central composer's work. Even so, it has been impossible to include all of the cartoon scores Bradley wrote in his career. In particular, I have regrettably had to omit the *Barney Bear* series of cartoons created by Ising in 1939 and continued sporadically until 1954 by directors George Gordon, Preston Blair, Michael Lah and Dick Lundy. My investigation has, by this point, unearthed simply too little critical or scholarly literature pertaining to these individuals on which to base a substantive discussion of these cartoons and their music. I hope that the discussions of the Harman and Ising, Avery, and Hanna-Barbera corpus here will prove more widely applicable to Bradley's work as a whole, and might also suggest some ways in which future studies could benefit from considering the more unexplored corners of his oeuvre.

I would argue that a broadened investigation into Bradley's output, like this one, is of particular importance for its potential to challenge, if not exactly to overcome, some of the difficulties that have already arisen repeatedly in this under-researched field. Although cartoon music scholarship has been recognized as benefitting several wider fields of musicology, the relatively small scale of these studies has tended to somewhat fragment the study of cartoon music as a

³ Even some of the published articles on the *Tom and Jerry* soundtracks leave something to be desired. While Ingolf Dahl's article for *Film Music Notes* is a fully-fledged analysis combined with valuable information gleaned from interviewing Bradley, Albert Mellot's short piece on *The Two Mouseketeers* for the same journal is little more than a description of the cartoon's story and one or two comments on instrumentation, although it does contain useful facsimiles of the original bar sheets in Bradley's hand. See Ingolf Dahl, 'Notes on Cartoon Music', *Film Music Notes*, 8.5 (1949), 3–13; Albert Mellot, 'The Two Mouseketeers: With Score Excerpts', *Film Music Notes*, 11.5 (1952), 9–11.

whole. For example, when describing the quotation of pre-existing music as a central technique in cartoon music, scholars have tended to choose their 'representative' examples from Stalling. But when examining the cartoon's relationship to swing or jazz cultures, the output from the Fleischer Studio is a far more natural choice for analysis. And when describing non-comedic Hollywood cartoons scholars tend to turn to Disney for examples.

The impression created is often one of independent styles developing separately at the various studios, which belies the amount of interaction, direct and indirect, which occurred due to the frequent migration of staff from one studio to another, and the artists' apparent willingness to take on board any and all influences from each other. Bradley, in fact, was exceptional among cartoon studio employees in that he remained with Metro-Goldwyn-Mayer for the entirety of his career after joining Harman and Ising's staff in 1934. Nevertheless, the scoring methods in MGM's cartoons incorporate influences considered characteristic of other studio styles, such as the central song of some of Disney's *Silly Symphony* series, or the prolific quotation and close synchronization of music and image in later Warner Bros. cartoons.⁴ One of the benefits of considering a single composer in a broader and deeper study is that it paints a more accurate picture of the amalgamation of methods that were incorporated into a single cartoon score.

If Bradley's work has fallen foul of a scholarly tendency to prioritize a narrow portion of the composer's scoring techniques, the result has been the emphasising of his original material over his use of quotation, his apparent eschewing of established clichés in favour of experimental techniques, and his enthusiasm for modern concert music. But while these are certainly important characteristics, the prominence granted to them in the literature leads to a rather skewed impression of what his vast corpus of cartoon scores actually contain. For example, the general impression that emerges from much of the literature is of a composer who rarely quoted - perhaps even avoided quoting - pre-existing music. This tendency was no doubt bolstered by Bradley's own penchant for discussing his interest in elements such as the twelve-tone technique. But in fact, there is hardly a single Bradley cartoon score that does not contain at least one musical quotation. By considering the various kinds of

⁴ It should be noted, however, that Bradley's use of quotation was never as prolific as his Warner Bros. counterpart Carl Stalling.

cartoons Bradley scored, and examining the differing functions of the full range of music within them, I will show that they contain a wider variety of compositional practices, and create a wider variety of effects, than has previously been acknowledged.

The danger of emphasising only a select few techniques utilized by each composer is that our understanding of the process of scoring a cartoon becomes oversimplified, which already seems to be a problem when cartoon music is described in a broader film-musicological context. In order to go some way towards rectifying this problem, I have adopted an approach whereby the cartoons and their music, rather than existing literature, have always served as my starting point. I have then tried to find areas of scholarship that might be improved by close observations and analyses of the cartoons, but at all times I have tried to allow the content of the primary sources to determine which aspects of theory are most useful to consider. What results from this approach is something more like three partly separate studies of significantly different facets of Bradley's contribution to cartoon music, rather than a single overriding thesis - although at the same time, it has been interesting to find how some conceptually distinct explorations have also occasionally delivered closely related points of insight.

One of the easiest ways to encapsulate the way film musicology has generally treated cartoon music is to bring into view, and subject to question, the various uses of the term 'Mickey-Mousing' to refer to moments of close synchronization between music and images. While this is, of course, only one aspect of cartoon scoring, it has taken on a somewhat iconic status, to the extent that it often stands as the only substantive point of reference to animated scores within general historical or critical writings on film music. As I demonstrate, however, while this famous, or perhaps even infamous, term tends to be explained away rapidly, as if the practices and effects it ostensibly describes were both simple and easily defined, the statements made by various scholars tend to be highly contradictory. In Chapter One I make what I believe to be the first strenuous interrogation of this term and the various practices it encompasses, in hopes of clearing the field for further examination of how truly varied a technique 'Mickey-Mousing' has always been.

Bradley's relationship to the history of Modernist composition has also repeatedly arisen as a point of interest within articles on the composer,

particularly those written during his lifetime. Avery's cartoons have also been considered in terms of their relationship to Modernist art. But there is only one existing article, by Steven Allen, that considers music or sound in the cartoons of Avery, since most scholars tend instead to emphasise his visual style. In Chapter Two, I consider various aspects of Modernism to determine the extent to which it is an appropriate context for a consideration of Bradley's music and the cartoons of Avery more broadly.

One other aspect of the cartoons whose absolute centrality to their creation and success has not quite been matched by the amount of critical attention is their approach to the realm of comedy, both in the large scale (the comic narrative) and the small (the momentary gag). While some of Harman and Ising's cartoons offer a somewhat unusual exception to the Hollywood cartoon norm in their relatively serious (even sentimental) narratives, MGM's cartoons were generally designed, quite simply, to make the audience laugh. One aspect of humour production that has recently received some attention from scholars of other media (notably including 'stand-up' comedy itself, but also theatre and literature) is 'comic timing', or the techniques used by a comedian or comic author to pace the delivery of the joke. In Chapter Three, I examine the effects of the constant musical metre on comic timing in the *Tom and Jerry* cartoons, with reference to studies of timing in various comedic arenas and some pertinent evidence from music psychology.

Overall, this dissertation does not aim to make any strikingly new claims either about Bradley's much-celebrated accomplishment as a composer for his chosen medium, nor indeed about the 'artistic' merit of the medium itself, to which he devoted the vast preponderance of his career. Rather, it aims to show how a fresh, critical exploration of a single cartoon music corpus of this scope and variety can unearth fruitful new perspectives on several perennially challenging scholarly preoccupations, including the audiovisual interaction itself, the interaction of 'high art' modernism with popular culture, and the technical and aesthetic devices of comedy across a range of different but interrelated media. And, perhaps most importantly, it seeks to cement the growing academic status of cartoon music as a multifaceted subject whose rich imbrication in numerous other strands of cultural history will surely soon render all further complaints of 'neglect' happily outdated.

1 Chapter One: Hugh Harman, Rudolf Ising and Cartoon Music Fundamentals

Harman and Ising were the first directors to make cartoons for MGM, and were also the first to employ Bradley as the sole composer of the cartoon scores. As such, their cartoons are useful for examining Bradley's early style. The visual and narrative style of the cartoons is also 'early', in the sense that director Tex Avery, and the directorial team of William Hanna and Joseph Barbera, appear to have taken it as a departure point. Harman and Ising tended to make cartoons involving whimsical fairy-tale narratives, with perhaps more emphasis on story than their successors. Given the larger amount of experimentation in Avery's visual and aural practices, and the greater emphasis on comedy in Hanna and Barbera's *Tom and Jerry* cartoons, it is tempting to view the work of Harman and Ising as unadventurous and comparatively unfunny. This would of course be an unfair and untrue judgement of an era where technology and expertise were both quite rapidly improving, in a medium that was generally considered synonymous with comedy.⁵ Nevertheless, the systems and practices that Harman and Ising gradually adopted did stabilize into some sort of norm from which the later directors deviated. And some of the techniques Bradley developed for accompanying these cartoons formed the basis of his scores for the rest of his career.

The cartoons of Harman and Ising therefore present an opportunity to consider the fundamentals of Bradley's cartoon scores. Perhaps the most fundamental of all of these is the technique of close synchronization, which is used prevalently. It is this technique, usually referred to as 'Mickey-Mousing', which more than any other seems to be used in film music scholarship to define cartoon scoring practices. If cartoon music is mentioned at all, it tends to be with reference to Mickey-Mousing, which is often discussed only in passing. Despite the perfunctory manner with which this term is used, the scholarship has by no means reached a consensus as to the exact definition of Mickey-Mousing, or even whether it refers to a practice or a resulting effect. A thorough review of the literature involved allows for a re-evaluation of this term and the practices to which it refers.

⁵ The fact of the cartoon's historical association with humour, and the drawbacks of this view for scholarship, are both discussed in the introduction of Daniel Goldmark and Charlie Keil, eds., *Funny Pictures: Animation and Comedy in Studio Era Hollywood* (London: University of California Press, 2011).

There is also some value in a fresh look at the personal professional histories of Harman and Ising. Theirs is a story not often told in animation histories; they tend to be overlooked in favour of other cartoon directors. Perhaps this is because cartoon histories tend to describe artistic influences as they track personnel moving between studios, and Harman and Ising are not generally considered particularly influential.⁶ Whatever the reason, their cartoons tend to be described as poor imitations of Disney's *Silly Symphonies*. While Walt Disney had an undeniable influence on the pair, both professionally and personally, it is worth also considering the influence of 1930s culture more generally. The style of Harman and Ising's cartoons bears a resemblance not just to Disney but to the wider output of the MGM studio.

Disney's influence on Harman and Ising was partly a practical one. By the time the pair began working for MGM, there were certain standard techniques of animation that had been pioneered at Disney's studio and that subsequently became more or less inescapable in Hollywood animation. Among these, the technique for achieving audiovisual synchronization was instrumental in shaping the style of the cartoons. One of the terms regularly applied to cartoon music scoring is 'Mickey-Mousing', which refers to close synchronization between music and images. The term and the technique tend to be treated fairly dismissively in the wider scholarship of film musicology, but it is worth considering Mickey-Mousing in some detail because it was so fundamental - on both the technological and aesthetic levels - to the Hollywood cartoon.

Disney's personal influence on Harman and Ising dated back to the shared origins of the three, before any of them moved to Hollywood. Perhaps the most lasting influence was Disney's striving for artistic excellence, exemplified by an aesthetic that prominently featured realistically depicted details, coupled with a disregard for the resulting financial cost. Harman especially found himself in trouble repeatedly with his employers for exceeding budget and schedule. But Disney's was not the only influence on the pair. The Great Depression engendered a market for escapism that all of Hollywood, and particularly MGM,

⁶ Both Michael Barrier and Leonard Maltin, in two of the most commonly cited histories, identify Harman and Ising as having been influenced by Disney, but not influential in their own right. Jeff Lenburg, in his history and appraisal of the 'Greats', devotes only half a page of the chapter 'Other Directors' to Harman and Ising. See Michael Barrier, *Hollywood Cartoons: American Animation in Its Golden Age*, rev. edn. (New York: Oxford University Press, 2003), Leonard Maltin, *Of Mice and Magic: A History of American Animated Cartoons*, rev. edn. (New York: Penguin, 1987), Jeff Lenburg, *The Great Cartoon Directors*, rev. edn. (New York: Da Capo, 1993).

seems to have been happy to fill. Even though the aesthetic of realistic details could have been used to tell real-life stories or human dramas, the cartoons of the 1930s generally chose to emphasise the fantastic and the whimsical. In order to explore the effect of these various influences on MGM's cartoon output and Bradley's music, I will offer in this chapter an analysis of *The Little Mole* (dir. Harman, 1941).

Although Harman and Ising rarely had an opportunity to publish their opinions about cartoons or describe their stylistic goals, what little there is resonates quite strongly with some of the writings of Bradley. It would seem that Bradley's ideals more closely matched those of Harman and Ising than of any other director Bradley worked with. All of them speak of a desire to make cartoons of artistic merit, with an emphasis on story rather than comedy. Arguably, it was their reluctance to make funny cartoons that finally lost them their jobs at MGM. It is interesting to speculate what direction Bradley, Harman and Ising might have taken had the three of them been free artistically and financially. Partly in pursuit of this speculation, I have analysed Harman's penultimate cartoon, *The Field Mouse* (1941). While visually it does not stray from the standard style, musically it is highly interesting, particularly in the way it exhibits the influence of contemporary concert music, which is a departure from the Romantic idiom of *The Little Mole* and the other early MGM cartoons.

i. Beginnings: Scott Bradley, Hugh Harman and Rudolf Ising

Walter Scott Bradley, as he was named at his birth in 1891, began composing scores for the independent Harman-Ising Studio in 1934. As Daniel Goldmark has noted, the accounts of his career prior to this are somewhat vague.⁷ Bradley himself spoke rarely about anything before his work at Metro-Goldwyn-Mayer, and what he did say tends to cloud the story as much as to clarify it. In a biographical synopsis for Ingolf Dahl, Bradley mentioned that he was 'conductor at [Los Angeles radio stations] KHJ and KNX in the early thirties ... entered the non-sacred realm of pictures in 1932 and started cartoon composing in 1934 with Harmon-Ising Co. [*sic*]'.⁸ In 1937 he again said that he was 'sort of "spewed" out of radio into pictures some seven years ago when I took up composing and arranging in some of the major picture studios'. Prior to his radio work, he

⁷ Goldmark, *Tunes for 'Toons*, see esp. pp. 45-46.

⁸ Dahl, (p. 4). Ellipsis in original.

seems to have been engaged with one or more theatre companies. On the reverse of an early publicity photo is the information that he was ‘identified with orchestras and bands in the East ... and has directed light opera such as *Red Mill*’.⁹ A small mention in a 1913 issue of *The Billboard* magazine corroborates this. It identifies W. Scott Bradley as musical director of The Dolys Tabloid Musical Comedy, who were touring Montana.¹⁰

Bradley’s activities during the years 1932-34, after his radio career but before he joined Hugh Harman and Rudolf Ising, are more difficult to piece together. Clifford McCarty’s bibliographic account *Film Composers in America*, which is drawn from internal studio records, places Bradley at the Celebrity Productions cartoon studio, giving him credit for thirteen *Flip the Frog* cartoons between 1931 and ’33.¹¹ McCarty’s attribution of Bradley comes from the studio’s own ‘cue sheets’, which list the composers for all the music used in each cartoon, and is unlikely to be inaccurate. Even though Bradley never mentioned this work in interviews, it seems plausible that he had cartoon experience prior to taking sole responsibility for composing all of Harman and Ising’s cartoons. A glance through the *Flip* cartoons finds one or two musical moments suggestive of techniques that became characteristic of Bradley’s later work, although it is impossible to be a hundred percent certain of his sole authorship.¹² And as Goldmark points out, it is reasonable to assume that Bradley felt these early efforts were not worth mentioning, especially as Bradley was not in charge of the music department.¹³

It is perhaps worth noting, in the present scholarly context, that online resources tend to be typically unhelpful for illuminating Bradley’s early career. The Internet Movie Database (IMDb), which is usually reasonably accurate as far as screen credits are concerned, is less reliable for cases where the artists did not receive a named credit for their work. One particularly misleading attribution to Bradley concerns the cartoon *Betty Boop’s Ker-Choo* (Fleischer Studios, 1933), for which Bradley is supposed to have written a song called ‘I’ve

⁹ Goldmark, *Tunes for ’Toons*, p. 178 n. 5. Ellipsis in original.

¹⁰ ‘Vaudeville Notes’, *The Billboard*, 26 July 1913, p. 4.

¹¹ Clifford McCarty, *Film Composers in America: A Filmography 1911-1970*, 2nd rev. edn. (Oxford; New York: Oxford University Press, 2000).

¹² For example, the way the opening notes of ‘She’ll be comin’ round the mountain’ are manipulated and re-harmonized throughout *The Phoney Express* (1932) is reminiscent of the way Bradley treated many similar phrases in his later scores.

¹³ Goldmark, *Tunes for ’Toons*, p. 46.

Got a Cold in my Nose'.¹⁴ Fleischer Studios was in New York, and there is hardly the slimmest chance they commissioned Bradley to write a song. In fact, Bradley wrote a different song with the same title for the Harman-Ising cartoon *Poor Little Me* (1935), which is undoubtedly where the confusion arose.

The creative origins of Hugh Harman and Rudolph Ising (who preferred the spelling 'Rudolf' for his screen credits) are better documented than those of Bradley, undoubtedly owing to their early association with Walt Disney. Much of the following historical account is drawn from the most complete history of American cartoons to date, *Hollywood Cartoons: American Animation in its Golden Era*. The author, Michael Barrier, bases his account very closely on primary sources, such as studio archives, and on various interviews with practitioners from all areas of the cartoon industry conducted at various times.

Harman and Ising began their career at Disney's Laugh-O-Gram Studio in 1922, and relocated with him to Hollywood. Their intention was always to found their own studio, but they never achieved full financial independence.¹⁵ Having followed Disney to California, they finally left his studio in 1927 when they agreed to work directly for Disney's distributor and so cut Disney out of the business. However, it was not long before they found themselves the victims of a very similar coup, when Universal, to whom their distributor had been selling the cartoons, decided to employ animators directly.¹⁶ Harman and Ising then went to work for Leon Schlesinger, who wanted a series to rival the (now fully independent) Disney Enterprises *Silly Symphonies* and *Mickey Mouse* series.

Schlesinger sold two series to Warner Bros.: *Looney Tunes* and *Merrie Melodies*, the former featuring Harman's new character Bosko, who was strongly influenced by Mickey Mouse (See Figures 1.1 and 1.2.). But although both series were highly successful, the problem for Harman and Ising was again lack of control over budget. Disney was spending money at an unsustainable rate; by early 1930, a single *Silly Symphony* might cost as much as ten thousand dollars to make, and by 1933, some instances were costing Disney anywhere between thirteen and twenty thousand dollars.¹⁷ By contrast, by 1933 Warner Bros. had continually cut the amount they were paying Schlesinger, owing to the difficult economic climate, from ten thousand dollars to seven and a half, and then to six

¹⁴ 'Scott Bradley (I) (1891-1977)', *The Internet Movie Database* <<http://www.imdb.com/name/nm0005973/>>.

¹⁵ Barrier, *Hollywood Cartoons*, p. 43.

¹⁶ Barrier, *Hollywood Cartoons*, p. 154.

¹⁷ Barrier, *Hollywood Cartoons*, pp. 158, 164.

thousand. Harman refused to renew his contract at anything less than the previous budgets, and he and Ising parted ways with Schlesinger after delivering their last contracted cartoon in August 1933.

After six months of struggling with sporadic work, Harman-Ising Pictures signed a new contract with MGM.¹⁸ It was at this point that they hired Bradley as their composer. Pointedly continuing the established tradition of alliteratively titled animation, they provided MGM with a new series of cartoons called *Happy Harmonies*. This time, theirs were the only names on each cartoon's title card, and on the face of it they could claim to be properly independent for the first time. But although their contract required a seemingly straightforward sale of each cartoon for twelve and a half thousand dollars, the details stipulated that MGM would pay all ongoing costs until that figure was reached. In practice, MGM found it difficult to stop Harman overspending; their choice once the budget 'limit' was reached was usually either to extend it further or to accept an unfinished cartoon. By 1937, MGM lost patience and terminated the contract with Harman-Ising Productions.¹⁹ In what must have seemed a familiar turn of events, MGM hired away the majority of Harman and Ising's staff, including Bradley, to form their own cartoon department. But they had difficulty finding and retaining producers.²⁰ In October 1938, after more than a year of little work and with their independent studio bankrupt, MGM offered Ising and Harman salaried positions as producers, which they accepted. Each of them was in charge of a separate unit of writers and animators. Once again, Harman and Ising had creative control over cartoon content, but were ultimately answerable to Fred Quimby, who was in charge of MGM's short subjects, as far as budget was concerned.²¹

It appears to have been the norm for animators to move around, and most of the 'major figures' identified by cartoon historians crossed paths with each other, over the course of their careers, at several different studios.

¹⁸ Barrier, *Hollywood Cartoons*, p. 188.

¹⁹ Barrier, *Hollywood Cartoons*, p. 192.

²⁰ Barrier, *Hollywood Cartoons*, p. 288-90.

²¹ Where cartoons are concerned, the terminology of 'director' and 'producer' is more a question of financial responsibility than of creative control. Harman and Ising were given the credit of producer for all their work, and there was no 'director' credited, meaning for example that Ising received the Academy Award for *The Milky Way* in person. But Fred Quimby, who had no creative input into any cartoon, designated himself 'producer' of the cartoons of Hanna and Barbera, and of Avery, all of whom were instead designated 'directors'. Hanna and Barbera finally received full producer credit only after Quimby retired. This meant, among other things, that it was Quimby who received the Academy Awards for the *Tom and Jerry* cartoons, something Barbera later remembered with bitterness. See Joseph Barbera, *My Life in Toons: From Flatbush to Bedrock in Under a Century* (Atlanta: Turner, 1994), pp. 83-84.

Nevertheless, Harman and Ising did somehow happen to be involved in the genesis of several departments. It would be hard to argue against the standard claim for Disney as the biggest single influence on 1930s American animation, and his influence on Harman and Ising, both professional and personal, must not be underestimated. Harman and Ising were instrumental in spreading Disney's influential style and mode of production across the Californian studios, ensuring his way of making cartoons became the norm. An examination of the origins of that style, and how it had developed by the time Bradley began composing for cartoons, can provide a basis for understanding his work.

In order to understand Disney's influence on Harman and Ising, it is important to realise that his influence extended to the whole of American animation throughout the 1930s. In 1926, Walt Disney Enterprises introduced several ground-breaking innovations to the way the industry was structured and the standard cartoon production techniques that had a lasting effect. Although not personally attributable to Disney, the improvements made at the studio and the resulting popularity of both the *Mickey Mouse* and *Silly Symphony* series ensured Disney's dominance in the industry. By the time Bradley began working for Harman and Ising, they had adopted each of these innovations to some extent. By looking at each in turn and seeing how Harman and Ising's implementation of them differed, we can begin to see their characteristic ways of working, the effect this had on the cartoon's style, and what was expected of Bradley's musical contribution.

The first innovation worthy of note is the hierarchical structure Disney imposed on the studio. Although all studios were hierarchical in a business sense, creatively they were generally only roughly departmentalized, owing in part to the small number of staff. For example, at the Fleischer Brothers Studio, which in 1923 boasted only nineteen total staff, the producers Max and Dave Fleischer had executive control, but everyone else was on the same professional plane. Cartoon production would begin with the producers writing a basic story scenario between them, and the scenes would be shared out between the animators. Dave Fleischer would discuss with each animator what smaller details might be included, but there was plenty of freedom for the animator to draw what he (it was always 'he') wanted. The animator was responsible for all the drawings that made up his scene, from sketches to fully inked pictures ready for photographing.

From the earliest days of cinematic cartoons, producers had strived to increase efficiency by devising mechanical ways of reducing labour and by introducing a quasi-industrial production line.²² In 1924, the Fleischers made an important step towards a more hierarchically ranked creative organisation when they split the jobs of ‘extremes’ and ‘inbetweens’. The accepted method of animating was to begin by drawing the most important moments of any given movement - the ‘extremes’ of a character’s gesture - and to fill in the drawings depicting the bits ‘in between’ afterwards. The Fleischers gave one of their favourite animators an assistant to draw the inbetweens so that he could devote his time and talent to the important drawings.²³ Disney took this idea even further. By the early 30s, he had a middle rank of ‘assistant animators’ between the supervising animators and the inbetweeners. The supervising animator would produce only rough sketches, focusing on perfecting the movement from pose to pose. The assistant animator would add most of the detail to the supervising animator’s extremes, before passing them to the inbetweeners. The hierarchy allowed Disney’s staff to work to their strengths - someone with a flair for capturing movement might not necessarily be able to draw details consistently across several drawings, and vice versa. Disney also separated out the most mechanical task, of inking and painting, and set up a department of non-artists, mostly women, to complete this laborious but simple process.²⁴

At what stage these corporate structures were adopted by Harman and Ising is difficult to know, but certainly by the time Hanna joined them in 1930 - four years before they joined MGM and Bradley - they had a separate inking and painting department (as at Disney, staffed by women).²⁵ Hanna originally worked as a janitor at the studio, a job for which we was grateful given the harsh economic climate, but found himself in charge of the inking and painting department within weeks of arriving, and he also began helping Ising with story ideas. Without any formal artistic training it is doubtful he would have made a good animator, but the new structure of specialized departments meant an

²² One important figure was J R Bray, who made some of the earliest attempts at dividing work between expert animators and less skilled assistants. In a patent application from 1913 he stated: ‘The artist may only sketch in pencil the portions which actually change position or expression in successive pictures while the portions which do not move through a series of pictures may be traced by assistants or copyists.’ See Donald Crafton, *Before Mickey: The Animated Film 1898-1928* (Cambridge, MA; London: The MIT Press, 1982), p. 145-147. For more on the subject of early animation patents and how Bray’s developments related to those of others, such as Windsor McCay, see Barrier, *Hollywood Cartoons*, pp. 11-23.

²³ Barrier, *Hollywood Cartoons*, pp. 24-25.

²⁴ Barrier, *Hollywood Cartoons*, pp. 138-39.

²⁵ William Hanna and Tom Ito, *A Cast of Friends* (Dallas: Taylor, 1996), p. 21.

inability to draw was less obvious a handicap than it would have been in the 20s. Hanna was able to progress via the story department, eventually becoming a producer for MGM.

My research at the MGM Archive and the Scott Bradley Archive at the University of Southern California reveals plenty of clear evidence that a hierarchical structure was also in place within the music department at MGM's cartoon studio. After Bradley composed the music, it would be copied onto a short score by a copyist.²⁶ The short score would be given to orchestrator Paul Marquardt, who also apparently orchestrated various live action films for MGM.²⁷ Marquardt would complete the conductor's score, after which more copyists would create the individual performer's copies. Bradley's bar sheet already contained an approximation of the instrumentation required, but Marquardt was at liberty to refine it as he saw fit. Nevertheless, Bradley occasionally preferred to dictate the orchestration more closely. The orchestral score for *Out-foxed* (dir. Tex Avery, 1949), for example, features the explicit hand-written comment 'Marquardt orchestrations not used'.²⁸ Contained in the same folder in the MGM archive are a few pages in Bradley's hand which outline the orchestration for the section. The passage in question is a fugue that Bradley specifically mentioned in one of his few interviews, and it would seem he had taken special care with its orchestration.²⁹

The number of musicians available would depend upon budget, which was subject to fluctuations. This was especially true once the cartoons were being produced by MGM's own department. For example, Bradley's music for *The Field Mouse* called for twenty-six instruments in the final arrangement, including six violins, two violas, two cellos and one double-bass - an unusually large string section for his scores.³⁰ By comparison, *Out-foxed* was allowed only sixteen instrumentalists. At the bottom of the first page of the orchestral score,

²⁶ The difference in handwriting reveals that Bradley did not provide the neat short scores himself. His bass clef, which is formed upside down, is distinctive enough to be easily recognizable.

²⁷ Most of these attributions are from unverifiable sources. But Marquardt's work on *The Wizard of Oz* (dir. Victor Fleming, 1939) is mentioned in Ronald Rodman, 'There's No Place Like Home': Tonal Closure and Design in *The Wizard of Oz*, *Indiana Theory Review*, 1998, 125–43 (p. 130)

²⁸ See part 23 of Bradley, 'Out-Foxed conductor's score', orchestrated by Paul Marquardt, in *MGM Archive*, University of Southern California Library

²⁹ See Bradley's comments on the fugue in John H. Winge, 'Cartoons and Modern Music', *Sight and Sound*, 17 (1948), 136–37 (p. 136)

³⁰ Bradley, 'The Field Mouse conductor's score', orchestrated by Paul Marquardt, in *MGM Archive*, University of Southern California Library

underneath the tally, someone has written 'It's gett'n toff! [*sic*]'.³¹ Clearly, the number of musicians allowed was being dictated from above, for other than purely creative reasons.

Synchronization was aided by the 'click track', most simply a sound recording of metrical clicks played through earphones worn by each of the musicians. Stalling recalled a precursor involving white marks on the projected film used for recording sessions, and that *The Skeleton Dance* (dir. Disney, 1929) was the first time they used an audible click.³² It became a standard tool for providing a metronomic guide for musicians scoring both cartoons and live-action film. These days, digital technology has provided alternative methods of making the sounds, which were originally made by holes cut in unexposed film at regular intervals, but the basic principle of having a metronome tied to onscreen action remains the same.³³

In order to make recording easier, the score was split into numbered cues, identified as 'parts' on the score. (I prefer to use the more common term 'cues', because it is less easily confused with instrumental parts). Cues originated in the days of live musical accompaniments to silent film, when the musicians would be given sheets listing film actions and either a list of suggested pre-existing pieces or a reference to accompanying sheet music. Recording in cues has been standard practice in films since the earliest sound-film days, and continues to be so. Its use in a film where the music may be absent for some periods of time, or where the soundtrack is composed of contrasting musical styles and instrumental ensembles, is fairly obvious. Separating fragments requiring specific personnel makes it logistically easier to coordinate recording sessions.³⁴ But since Bradley's scores tend to involve a much smaller ensemble, and often create the impression of continuing unbroken for the whole length of the cartoon, it would be easy to mistakenly imagine that an entire seven-minute soundtrack could be performed as a single cue.

³¹ Bradley, 'Out-Foxed conductor's score', orchestrated by Paul Marquardt, in *MGM Archive*, University of Southern California Library

³² Michael Barrier, 'An Interview with Carl Stalling', in *The Cartoon Music Book*, ed. by Daniel Goldmark and Yuval Taylor (Chicago: A Cappella, 2002), pp. 37–60 (p. 44).

³³ Neil Strauss, 'Tunes for Toons: A Cartoon Music Primer', in *The Cartoon Music Book*, ed. by Daniel Goldmark and Yuval Taylor (Chicago: A Cappella, 2002), pp. 5–13. See also Lea Jacobs, *Film Rhythm after Sound: Technology, Music, and Performance* (Oakland, CA: University of California Press, 2015), p. 64.

³⁴ For a detailed description of the kind of practicalities and logistics required, an illuminating study of the related practice of Foley recording (the post-synchronization of performed sounds) can be found in Vanessa Theme Ament, *The Foley Grail: The Art of Performing Sound for Films, Games and Animation* (Amsterdam; London: Elsevier/Focal Press, 2009).

The cartoon score was broken into cues because, despite being shorter and having fewer instrumentalists to coordinate, the system allows for changes in tempo and instrumentation that would not be easy to perform live. Each new tempo was given its own cue, while separate cues also facilitated any changes of instrument for a single player - such as the clarinetists and bassoonists who would often double as saxophonists. Tempo changes also made the music sound less mechanical, which was always a pitfall of playing to the metronome. Pauses of any length could be edited in at the end of, or between, each cue. Many of Bradley's cues end with a fermata, or an instrumental solo cadenza that did not need to be played to a strict tempo.

The ensemble was generally comprised of members of the MGM orchestra, who were paid a salary to record film music on an hourly basis. Bassoonist Don Christlieb writes amusingly in his memoir about his recollection of the place of cartoon music in the studio's pecking order:

It seemed that at the conclusion of any picture that was being scored, a cartoon was in the wings, waiting to be scored if a few minutes were left over on the recording sessions.³⁵

When those 'few minutes' did in fact become available for this extra recording, Bradley would be on hand to conduct.³⁶ Even at this late stage, changes might still be made to the score. The most significant alteration I found of this nature occurs in a later *Tom and Jerry* cartoon, *A Mouse in the House* (dir. William Hanna and Joseph Barbera, 1947). In a scene that takes place about one minute into the cartoon, the maid has a conversation with her two cats, Tom and Butch, who nod or shake their heads in response to her questions. Their movements were originally to be accompanied by a solo violin, but in the finished cartoon two clarinets can be heard instead.³⁷ Later years saw an increase in opportunities to record instruments separately and edit them together. We can find numerous examples, in the archives, of solo musical phrases notated separately from the ensemble with the word 'insert' beside them, usually to facilitate a louder volume for the solo.

³⁵ Don Christlieb, *Recollections of a First Chair Bassoonist: 52 Years in the Hollywood Studio Orchestras* (Sherman Oaks, CA.: Christlieb Products, 1996), p. 27.

³⁶ Goldmark, *Tunes for 'Toons*, p. 54.

³⁷ When the series underwent censorship to remove the stereotypical dialogue of the African-American maid (changing phrases like 'You is, aint you?' to 'You are, aren't you?') the whole soundtrack for this scene, including music, had to be re-recorded. In the censored version of the cartoon, the violin is heard instead of the clarinets. Although the censored version was generally the one broadcast on television, recent DVD and Blu-Ray releases feature the original uncut cartoon with the clarinets. The censored version can occasionally be found on video-hosting websites.

The hierarchical structure of the musical arrangement process did not necessarily have a great impact on Bradley's compositional procedures, although he may not have paid as much attention to minute details of orchestration knowing that he was delegating responsibility to the capable hands of Marquardt. The few surviving short scores show that, while Bradley sometimes indicated very clearly which instrument should play which exact note, there are also many instances where he gave Marquardt more freedom, with instructions such as 'full' or 'strings + brass'. The other changes which Disney instigated, and which were widely adopted, had a more fundamental effect on the manner of cartoon composition.

Apart from the script, cartoon studios of the 1920s had commonly utilized only two important planning tools, which continued to be used through the Hollywood studio era: the 'model sheet' and the 'exposure sheet'. The model sheet was a set of drawings of a cartoon character seen in various poses, conveying various emotions. It acted as a guide so that all the animators' drawings would be consistent. Exposure sheets were simply lists - vertical columns of information split horizontally to mark each second of footage. They were essential from the earliest days of cartoons because they explained to the camera operator how many times each drawing needed to be photographed. But they were flexible enough to contain as much detail about the drawings as was required to be of use to the animator. All the details of the action, such as how a character's mouth needed to move to accommodate the dialogue, could be listed frame by frame, with technical details added as needed.

To these two basic planning tools, Disney added the storyboard and pencil test, which aided the preparation of images, as well as the bar sheet, on which the soundtrack was planned. The storyboard consisted of a sequential series of sketches showing how each scene would look, rather like a comic strip. Alongside the written script, the storyboard presented an overview of the entire cartoon, which could be edited and improved before any significant work at the drawing board took place. Scenes were then shared out among the animators, who could use the storyboard as a guide for their own scene. This approach removed pressure from the animator who previously would have had to create small story elements to fill the scene they were given. Harman later marvelled at how difficult it had been in the early days to have to make story decisions as an animator:

It used to bewilder me that enough invention wasn't made in the story that we could go ahead and draw. It was so hard to sit there. It was easy to invent the little business, the little stuff, but to try to analyze certain actions at times seemed very, very difficult, because we had no reference to live action.³⁸

While the storyboard made sure animators always had a guide to work from, another supervisory tool Disney introduced was the pencil test, which served as a check that the animators' work was progressing satisfactorily. The pencil test was filmed footage of the animators' rough pencil drawings that might have few details, but that would approximate the finished scene. The footage would be shown to the supervisors and Disney himself, and changes could be made as necessary before any more expensive work had been completed.

The bar sheet was Disney's solution to the problem of synchronizing the animated images precisely with associated sound effects. When sound first arrived in film, the Fleischer studio had been the first to make sound cartoons. Their *Car-tunes* featured a musical performance (often with live-action footage of the singer) and a cartoon that, in the earliest days, was not synchronized to the music. The best way to achieve exact synchronization of sound and animated image was not immediately apparent to anyone in the business. The sound would have to be recorded separately, and ensuring perfect synchronization with the drawings and resulting filmed footage was something of a brain-teaser. Harman and Ising made their first attempt at a sound cartoon in 1929, shortly after they had parted ways with Disney.³⁹ Harman had the idea of updating a type of cartoon the Fleischer brothers had pioneered some years earlier in their *Out of the Inkwell* series, and which was enjoying popularity at various cartoon studios, where a live-action artist interacts with his cartoon drawings. Ising acted the part of artist and their fellow animator Maxwell provided the voice of the drawn character. In order to record both characters' lines of dialogue on the same soundtrack (post-production editing being impossible at that time) Maxwell delivered his lines just out of shot of the camera filming Ising. Cleverly, a second camera was used to film Maxwell simultaneously to provide a guide for animating Bosko. They would simply copy Maxwell's mouth one frame at a time to ensure the animation and sound were synchronized. This method had its

Michael Barrier, 'Interviews: Hugh Harman'

<http://www.michaelbarrier.com/Interviews/Harman/interview_hugh_harman.htm> (para. 15 of 59).

³⁹ The cartoon was *Bosko the Talk-Ink Kid*, which was never released but won them the contract with Leon Schlesinger to provide cartoons to Warner Bros.. Barrier, *Hollywood Cartoons*, p. 155.

problems, though. Ising's voice always sounded further away than Maxwell's because of the limitations of recording technology at the time, and the artist-and-drawing idea was already an old one when Harman and Ising first used it.⁴⁰ It was not long before they adopted Disney's method, which was characteristically schematic.

Where Harman and Ising had begun with dialogue, and used a live performance to dictate the animated images, Disney took the crucial decision to use a musical beat to keep everything in time. The bar sheet was rather like the exposure sheet, but it depended on the musical score for its coherence. It consisted of a musical staff on which was written the composer's score (in Disney's earliest sound cartoons this was by Carl Stalling) with detailed descriptions of the actions and required sound effects above it, showing where each would fall in relation to the unfolding musical soundtrack. The metronomic speed of the music was specified and used to calculate how many frames of footage would occur between each beat. Since sound film always ran at twenty-four frames per second, the calculation was relatively easy as long as sufficient care was taken when choosing the musical tempo. For example, music recorded at sixty beats per minute would require twenty-four frames for each beat, while eighty beats per minute would require eighteen frames, and so on.

The choice of tempo was partly musical and partly dramatic, and it is difficult to say exactly who would have responsibility for the decision. At Disney, each director was paired with a composer with whom they worked exclusively; the timings would be chosen and laid out in 'the directors' music rooms', so named because each had a piano.⁴¹ However, there are one or two accounts that suggest at MGM Bradley may have had less input at this stage of the process. The first of these small insights can be gleaned from Hanna's autobiography, when he describes how his own musical knowledge gained him his first directorial job of helping Harman time some *Looney Tunes* cartoons:

From my musical background, I knew how a metronome worked and I could figure out how many frames per beat were required for the precise coordination of action with sound. I also knew how to take these calculations and write them on music bar sheets which could be referred to in the direction of the cartoon.⁴²

⁴⁰ Barrier, *Hollywood Cartoons*, p. 156.

⁴¹ Jacobs, p. 62.

⁴² Hanna and Ito, p. 23.

Hanna makes no mention of the composer being involved. Of course, this account refers to the directors' time at Warner Bros., but another account from MGM can be found in a possibly unpublished article of producer Quimby:

After general agreement on the story is attained, the writing of which parallels that of a script for live-action, production is begun. The cartoon script, however, is written on what appear to be large music sheets. This is known as 'detailing', a chore which is customarily performed by the Director. Detailing the action of a cartoon demands a comprehensive knowledge of all phases of cartoon production, such as animation, music, acting, timing, sound effects, as well as such mechanics as photography, settings, tone values and color, among other items.⁴³

Both Hanna and Quimby contribute all the timing decisions to the director, even as they assert the musicality of the process. It seems highly unlikely that the composer was entirely absent from timing decisions, but it would be equally wrong to assume that Disney provides a universal example of animation procedures. Perhaps it is safest to say that Bradley may have had a less central role in the development of Harman and Ising's cartoons than his Disney counterparts.

Sadly for present-day historical scholarship, MGM's bar sheets were all lost during some unknown stage of restructuring or warehouse clearance. This is a doubly unfortunate state of affairs, since not only were these the only scores written in Bradley's hand, they would have provided an immensely detailed view of the collaborative process between director and composer, and a record of how the musical and visual timing was conceived. Only one or two facsimile pages that were reprinted in books survive.⁴⁴

The implications for the compositional process of the bar sheet method are fairly far-reaching. Even if we assume that Bradley played a major part in constructing the bar sheet, there are some underlying assumptions that limited the amount of compositional freedom. There are a few surviving unused bar sheets in the MGM Archive at the University of Southern California that show how they would have looked when the director and composer started working on them. They arrived pre-printed not just with musical staves and boxes for action

⁴³ Fred Quimby, 'How Animated Cartoons Are Made' (unpublished typescript of 8 pages, no date), in *MGM Archive*, University of Southern California Library, pp. 1-2. This may have been the basis for a short chapter Quimby contributed to a textbook for professional artists, but the actual text bears no direct relation. See Fred C Quimby, 'How Animated Cartoons Are Made', in *The Complete Guide to Professional Cartooning*, ed. by Gene Byrnes (New York: Grosset and Dunlap, 1950), pp. 240-249.

⁴⁴ See for example the timing sheet from *Tee for Two* (dir. Hanna and Barbera, 1945) in T. R. Adams, *Tom and Jerry: Fifty Years of Cat and Mouse* (London: Pyramid, 1991), p. 37. See also the examples in Mellot.

descriptions, but actually with bar-lines through the staves, with eight bars to each stanza. Of course, it was possible to alter these lines by drawing new ones in bold - as indeed the surviving example from *Tee for Two* shows.⁴⁵ But the assumption was that most of the music - and the action - would unfold metrically, not only in terms of the tactus but with a chosen time signature, and the hierarchical structure of beats and phrases that implies. It would have been virtually impossible for Bradley to ignore the metrical structure he was presented with, which made some level of synchronization unavoidable. And if Hanna's account of the timing process is true, and the composer was only marginally involved, decisions that might be assumed to be musical, including most obviously those about tempo and time signature, might have been decided in advance by the director. Less obviously, further characteristics such as phrase lengths could be highly influenced by a director's decision of what action to place where in the animated sequence. Scott Curtis, in his study of Harman and Ising's earlier cartoons for Warner Bros., observes that their action tended to unfold in eight-bar phrases:

At the beginning of *You Don't Know What You're Doin'* (1931), after an eight-bar intro over the credits, the singing begins to 3/4 time, allowing a two-measure break at the end of the sixth bar for a character to slap out a rhythm on another character's behind. After another six-bar section, the second character echoes the first by tapping out the same rhythm at the break. Eight bars later, the hero of the story, Piggy, is riding his motor scooter down the street to the club; the clippity-clop of his engine is perfectly timed to the rhythm of the new refrain.⁴⁶

The tendency for the directors to plan the action in eight-bar phrases continued long into their careers, as is easily observable when watching their later cartoons. In fact, it continued to be a feature in the cartoons of Hanna and Barbera, albeit to a lesser extent (see Chapter Three below). Of course, it reinforces the connection between music and images that is already innate in the cartoon, thanks to the bar sheet.

Given the prominence of synchronization in the cartoons, it is fruitful to consider the extent to which Bradley employed 'Mickey-Mousing' in his scores. But first it is worth interrogating this term and the practices it is used for, which are surprisingly diverse.

⁴⁵ Adams, p. 37.

⁴⁶ Scott Curtis, 'The Sound of the Early Warner Bros. Cartoons', in *Sound Theory: Sound Practice*, ed. by Rick Altman (New York: Routledge, 1992), pp. 191–203 (p.

ii. Mickey-Mousing

The term ‘Mickey-Mousing’ is used in film studies to liken live-action film music to cartoon music. Broadly speaking, it describes moments of close synchronization between images and music. It was apparently coined by producer David O. Selznick to refer somewhat deprecatingly to the music of composer Max Steiner, whose scores often closely match onscreen movement.⁴⁷ The term has obvious pejorative connotations given its proximity to American slang for something that is overly simplistic (the adjective ‘Mickey Mouse’), and this has led some animation musicologists to dismiss it in favour of more specific terms. Curtis has complained that the term carries the assumption that ‘exact illustration is a rather tedious and silly way to relate music and image’.⁴⁸ On top of this, ‘Mickey-Mousing’ does not specifically describe anything about the audiovisual pairing. Curtis prefers terms such as ‘isomorphic’ and ‘iconic’, which describe more specifically the audiovisual relationship at certain moments.⁴⁹ Nevertheless, the term persists within film-musicology more broadly, and apparently without any intended insult, and there are animation scholars who use the term, while admitting its limitations. Goldmark, for example, uses ‘Mickey-Mousing’ as a broader term in combination with terms like ‘isomorphic’.⁵⁰

The most recent study of Mickey-Mousing is to be found in Lea Jacobs’s *Film Rhythm After Sound*, in a chapter focusing on the early sound cartoons of the Disney studio.⁵¹ Jacobs begins the chapter, which is the most in-depth consideration of the technique to date, by defining Mickey-Mousing as a term that ‘encompasses a number of different aspects of the relationship between music and action, and music and other sounds.’⁵² The various relationships grouped under the term include ‘tight synchronization between movement

⁴⁷ David O. Selznick, Interoffice memo to Mrs. Katherine Brown, 30 August 1937, reprinted in David O. Selznick, ‘Memoranda’, in *The Routledge Film Music Source Book*, ed. by James Wierzbicki, Nathan Platte, and Colin Roust (New York; Oxford: Routledge, 2012), pp. 103–106. It is perhaps worth noting that Steiner often used a click track during recording sessions. This is in contrast to composer Erik Wolfgang Korngold who, despite being roughly comparable to Steiner in terms of his musical and orchestrational stylistic tendencies, preferred to follow his innate sense of timing while conducting. See Kathryn Kalinak, *Settling the Score: Music and the Classical Hollywood Film* (Madison: University of Wisconsin Press, 1992), p. 96.

⁴⁸ Curtis, ‘The Sound of the Early Warner Bros. Cartoons’, (p. 201).

⁴⁹ Curtis, ‘The Sound of the Early Warner Bros. Cartoons’, (see esp. pp. 201-202).

⁵⁰ Goldmark, *Tunes for ‘Toons*, see esp. pp. 65-66.

⁵¹ Jacobs pp. 58-108.

⁵² Jacobs

and/or cutting and the beat’, ‘the musical imitation of physical movement’, and ‘more generally to any tight integration of music and sound effects’. In the rest of the chapter, Jacobs deals almost exclusively with the first of these, which she has identified as a key technique in Disney’s early sound cartoons. Jacobs shows that onscreen action which unfolds to the musical beat is in itself a very versatile tool, which can be employed to create a variety of effects. I discuss the implications of this further in Chapter Three. But the other definitions of ‘Mickey-Mousing’, which Jacobs only considers cursorily, are worth examining because they reveal an even greater potential for versatility.

On the whole, the film music literature tends to treat the term ‘Mickey Mousing’ in a dismissive way, each scholar defining it quickly and moving on. This implies that the techniques utilized by cartoon composers are similarly dismissible. But the contradictory nature of these small references hints at the underlying complexity of the audiovisual relationship in moments of musical synchronization.

Perhaps because of the negative connotations Mickey-Mousing tends to carry, the very act of composing music that is closely synchronized has been downplayed in studies of Bradley. Dahl, in his 1949 article, seemed at pains to portray Bradley as struggling to write an inventive accompaniment despite the rigidity of the director’s timing decisions:

[T]he degree to which illustration is lifted above the purely mechanical duplication of action depends upon the inventiveness of the composer. [...] Tied down, as he is by metronome and timing sheet it is difficult for him to write music that has flow and over-all continuity.⁵³

Dahl went on to prove Bradley’s inventiveness by highlighting his use of unusual compositional techniques such as the twelve-tone system. This has tended to form the basis of scholarship on Bradley ever since. Most recently, Goldmark discussed Bradley’s use of twelve-tone phrases in some detail, and explained how the composer moved away from obvious Mickey-Mousing in his later career. When discussing Bradley’s music for Hanna and Barbera’s *Tom and Jerry* cartoons he asserts that Bradley

strove to create a compelling relationship between the music and the image, in order to avoid rudimentary mickey- (or Jerry-) mousing. To be sure, mickey-mousing in its literal sense, the synchronization of sound and image, appears often in Bradley’s work. Though he resisted

⁵³ Dahl (p. 5)

the limitations of synchronization by trying, whenever possible, to write the music *before* he saw the visuals, we know that he was rarely able to do so. However, he could escape at least the appearance of mickey-mousing by refusing to use songs with straightforward rhythmic pulses.⁵⁴

Like Dahl, Goldmark is eager to portray Bradley as trying to resist close synchronization. While he acknowledges the practical restraints placed on Bradley by the bar sheet, and that his earlier work for Harman and Ising in any case involved more Mickey-Mousing, he perhaps underestimates the fundamental inescapability of synchronization between music and images within the chosen procedure of cartoon production. It could be argued that instances of Mickey-Mousing are as much the product of directorial decisions as compositional ones. More importantly, both Goldmark and Dahl seem to see Mickey-Mousing as something ‘rudimentary’, or a ‘pure mechanical duplication’, and therefore best avoided. But this impression is worth contesting, because Mickey-Mousing is arguably a more complicated technique, and capable of more nuanced effects, than has generally been acknowledged.

The scholarship on Mickey-Mousing contradicts itself so often that the term clearly covers a wide range of techniques and effects. Examining the various examples of Mickey-Mousing from the literature reveals it to be an umbrella term for a far more complicated set of techniques and effects than any singular, simplistic understanding of it. The various uses of the term in the literature provide a clear starting point for discerning the perceived difference between the audiovisual relationships at play in live-action films and cartoons respectively. And analyses of its deployment in *The Field Mouse* can serve to suggest that the elusive notion of Mickey-Mousing actually has at its heart a very complicated audiovisual relationship.

To approach a specific definition of ‘Mickey-Mousing’ based on its uses in the literature is very difficult, because it has generally been dealt with parenthetically and within the context of a broad range of films. Although it began as a term for a composing practice, it has more often been used for an attribute of the filmic object, or a phenomenological effect. ‘Mickey-Mousing’ covers a broad range of pairings between various onscreen movements and musical characteristics: Selznick was referring to Steiner’s ‘interpretation of each line of dialogue and each movement musically’, whereas Steiner, who

⁵⁴ Goldmark, *Tunes for 'Toons*, pp. 63-64.

unashamedly embraced the term despite any negative connotations it may have carried, had a broader idea of what onscreen movements his music might be synchronized to.⁵⁵ On one occasion, he said:

When a film is weak - for example, if an actor raises his eyebrow in shock and looks like the very devil, my music helps get that shock idea across.⁵⁶

Elsewhere, he explained 'Mickey Mouse scoring' as matching the film's formal edits:

If I were to underline a love scene in a parlor and we were to cut away to a boat on the water, I would try and write my music so that the love theme would modulate into some kind of water music or what have you, as naturally the love theme would have nothing to do with the boat as the locale would be changed and probably would indicate time elapse.⁵⁷

In this view, it seems that Mickey-Mousing might be music that is synchronized to any type of onscreen movement, whether acted or edited. More recently, Justin London has suggested that there may be a kind of Mickey-Mousing that does not require a link to any specific visual movement. In describing Steiner's music for *Mildred Pierce* he suggests that

the "Restaurant Theme" and (especially) "Bert's Theme" might be thought of as examples of "emotional mickey-mousing": rather than following the physical action of the characters on the screen these themes ape the emotional state of the character (a down-in-the-dumps Bert) or institution (a hustling and bustling restaurant).⁵⁸

Since a character's emotional state is by definition not visible, there is a question as to how exactly 'emotional mickey-mousing' differs from any other portion of film score. It would seem that London senses Mickey-Mousing to be a deliberate outwards gesture by the music towards something (anything) specific, whether that 'something' is an onscreen movement or a less visible aspect of the narrative.

The possible implications captured under the umbrella term 'Mickey-Mousing' become further broadened when we turn consider the specifically

⁵⁵ Selznick.

⁵⁶ Max Steiner, quoted in Fred Karlin, *Listening to Movies: The Film Lover's Guide to Film Music* (Oxford: Maxwell Macmillan, 1994), p. 79.

⁵⁷ Max Steiner, interoffice memo to Carlyle Jones, Warner Bros. Pictures, 11 March 1940, quoted in David Neumeyer, Caryl Flinn and James Buhler, 'Introduction', in *Music and Cinema*, ed. by James Buhler, Caryl Flinn, and David Neumeyer (Hanover, NH; London: University Press of New England, 2000), pp. 1–32 (p. 15)

⁵⁸ Justin London, 'Leitmotifs and Musical Reference in the Classical Film Score', in *Music and Cinema*, ed. by James Buhler, Caryl Flinn, and David Neumeyer (Hanover, NH; London: University Press of New England, 2000), pp. 85–98 (p. 95, n. 15).

musical side of the audiovisual pairing. Not only have different visual elements been referred to, but different aspects of music have also been considered Mickey-Mousing. Neil Lerner uses it to refer to melodic contours in *Who Framed Roger Rabbit* (dir. Robert Zemeckis, 1988):

Eddie kicks a weasel and its ascending and descending arc is synchronized with a melody that rises and falls with a similar climactic chord from the orchestra.⁵⁹

By contrast, when discussing Steiner's score for *The Informer* (dir. John Ford, 1935), Kathryn Kalinak describes 'the direct synchronization between Gypo's footsteps and the syncopation in his *leitmotiv*' as an instance of Mickey-Mousing - a rhythmic, rather than melodic gesture.⁶⁰ Elsewhere, she defines it as matching 'the beat of the music to physical action in the image', which might imply a link to the music's metre - an embedded characteristic of musical structure rather than a specific sound. Nicholas Cook similarly refers to conceptual aspects of music when he refers to a 'music video equivalent of mickey mousing' in which 'every new musical phrase or section is aligned with a cut'.⁶¹ So Mickey-Mousing might be any musical characteristics, even purely formal or conceptual ones, that are synchronized with the image.

How do we reconcile London's 'emotional Mickey-Mousing', which requires only a conceptual narrative element that might not be a distinctive visual gesture, with Cook's and Kalinak's definitions, which require only structural aspects of the music, which might not be a distinctive aural gesture? Taken together, the general definition of Mickey-Mousing is of music and images that have a strong conceptual link. Of course, in most instances there is a physical link as well, one that is far more objectively real than this broadest definition would suggest. Nevertheless, what even London's 'emotional' and Cook's 'music video' Mickey-Mousings have in common is that they both carry a strong impression of intentionality on the part of the director, composer or editor.

One possible reason why Mickey-Mousing is imbued with a palpable sense of artistic intention is because it requires deliberate effort to bring it about. Either the images have to follow the music, or the music has to follow the

⁵⁹ Neil Lerner, 'Minstrelsy and Musical Framing in *Who Framed Roger Rabbit*', in *Drawn to Sound: Animation Film Music and Sonicity*, ed. by Rebecca Coyle (London: Equinox, 2010), pp. 104–119 (p. 112).

⁶⁰ Kathryn Kalinak, 'Max Steiner and the Hollywood Film Score', in *Film Music 1*, ed. by Clifford McCarty (New York; London: Garland, 1989), pp. 123–142 (pp. 125–126) (emphasis in original).

⁶¹ Nicholas Cook, *Analysing Musical Multimedia* (Oxford: Oxford University Press, 1998), p. 165, n. 29.

images, or both have to be planned beforehand. Either elaborate choreography is required, or the composer has to time the music meticulously, or the editor has to edit the film to the music. Whichever practice has apparently occurred, the resulting effect is always one of deliberate planning.

Beyond the fact that it is seemingly deliberate, the effect of Mickey-Mousing is harder to pin down. We might even say that many of the most prominent phenomenological and analytical accounts in the existing scholarship fundamentally contradict each other. Mickey-Mousing may draw attention to the music, or make it virtually inaudible; the music may appear to be generated by the actors, or to control them; it may seem to contain no information, merely duplicating what is already communicated by the screen, or it may seem to knowingly indicate what is about to occur. These contradictions can be better understood with reference to an example from *The Field Mouse*. A consideration of what has caused the contradictions in these accounts, and what they nevertheless have in common, leads to a better understanding of the audiovisual relationship in general, and the specific perceived realities of the cartoon as opposed to live-action film.

One of the defining characteristics of synchronization is that neither half of the pair has any discernible precedence over the other. When images and sound coincide, it may be impossible to tell whether the music has been composed to fit the images or the images have been edited to the music, or whether both have been planned with respect to one another. Consider the following assertion from Caryl Flinn that

In mickey mousing, music assumes its most extreme and hyperbolized shadowing of the image. The consummate example is offered by Dumas's [sic] "The Sorcerer's Apprentice" in *Fantasia* [dir. Norm Ferguson] (1940), where Mickey Mouse's movement down the stairs is accompanied by a descending scale on the soundtrack.⁶²

Flinn makes it sound as if Dukas were a composer of Steiner's ilk, writing music to 'shadow' pre-existing footage of Mickey. But of course there is a basic confusion, or at least elision, here: as we all know, the process for making *Fantasia* was quite the opposite; the animators used Dukas's pre-existing piece as the basis for the animation, rather like a choreographer might set a ballet to music. But to divine the fact purely from watching 'The Sorcerer's Apprentice' is

⁶² Caryl Flinn, *Strains of Utopia: Gender, Nostalgia and Hollywood Film Music* (Princeton, NJ; Oxford: Princeton University Press, 1992) p. 160 n. 6.

likely impossible. In his discussion of the 'Rite of Spring' segment from the same film, Cook provides some corroboration for this view when he refers to 'the skill with which the animators have succeeded in creating the effect that the music was composed for the animations, not the other way round.'⁶³ It would appear that the close synchronization of music and images actually serves to disguise the film's mode of production.

The effect produced by musical synchronization in 'The Sorcerer's Apprentice' can be described quite differently if music is perceived as having come first. Instead of the music 'shadowing' the image, it is simply following its pre-determined course. If anything is 'hyperbolized', it is Mickey's descent down the steps, which we might now consider clownish as he takes care to step to the beat. In fact, if *Fantasia* were live action, the pairing of Mickey's movements to music would come across as elaborate choreography, not Mickey-Mousing at all. The contradiction between Flinn's account and my own is explained not by any property of the images or music, but simply a difference of perception. It is determined by the perceived filmmaking practices used to create the Mickey-Mousing. If the music is perceived as having entered the filmmaking process during filming or animation - music the actors appear to be aware of - the actor's movements will appear dance-like or deliberate. If, on the other hand, music is perceived to have been added after filming or animation is complete - as Flinn seems to imply - it will come across as Mickey-Mousing.

An example from the opening of *The Field Mouse* shows how readily the cartoon switches from one perceived state to another (see Figure 1.14). The cartoon opens on a family of mice harvesting their corn and singing a harvest song. While the mice are singing their song, they are obviously aware of the music. The 'Grandpa' mouse moves his arms to the beat as he sits in his chair, and the movement is perceived as a kind of dance. But as soon as the singing stops, the music may be perceived as following the movement. There is nothing to suggest an awareness of music in the movements of the three mice who are carrying bushels of corn on their heads (A, mm. 37-43); when they fall over, to the sound of a bass drum (m. 43), it seems like an accident. And yet the resumption of the chorus at the end of this un-sung section makes it sound, retrospectively, like an interlude. There is really no attempt to delineate whether the characters are moving musically or not. All their actions happen in

⁶³ Cook, p. 182.

relation to the metre - that is how the narrative was planned - and there is simply no way to decipher whether the music is following the images or the images are following the music.

Similar differences of perception can shed light on other contradictions that exist in the literature. Consider the following contradiction between the definitions Claudia Gorbman and Ben Winters have proposed for *Mickey-Mousing*. Winters defines *Mickey-Mousing* as ‘music that seems to be produced by the physical actions of the characters’.⁶⁴ Presumably, Winters has perceived a practice whereby the music has been composed to match the actors’ performance. Like sound effects, the musical gestures are chosen to match the physical movements of the actors. The music copies each actor’s gesture, rather than any editorial decisions such as cuts. This leads to the impression that the music is entirely dependent upon, even controlled by, the actor’s movements - had the actors moved differently, or their movements been edited differently, the music would sound different. By contrast, Gorbman outlines a hypothetical alternative soundtrack for a scene involving cyclists in *Jules et Jim* (dir. François Truffaut, 1962):

if each musical downbeat coincided exactly with each turn of the pedal shaft by each character, we would be affected strangely indeed, made conscious of a perversely manipulative narrator.⁶⁵

Gorbman does not actually use the term ‘*Mickey-Mousing*’ during this particular passage. However, it is very close to Kalinak’s definition of ‘matching the beat of the music to the physical action in the image’. Gorbman’s hypothetical instance does not describe actors cycling to music that they would be able to hear, because there would be nothing ‘manipulative’ about that. Rather, the dance-like character of the cyclists movements would be the result of an editorial decision - a deliberate choice of how to depict the movement, rather than a happenstance. And the choice of the downbeat - an independent, unalterable aspect of the music - as the point of synchronization would highlight the inflexibility of the music. In contrast to Winters’s example, in which the music subordinates itself to the action, the movement of Gorbman’s cyclists would appear to be controlled by the music.

⁶⁴ Ben Winters, ‘The Non-Diegetic Fallacy: Film, Music and Narrative Space’, *Music and Letters*, 91 (2010), 224–244 (p. 227).

⁶⁵ Claudia Gorbman, *Unheard Melodies: Narrative Film Music* (Indiana: Indiana University Press, 1987), p. 16.

It is perhaps inappropriate to use an example from *The Field Mouse* to illustrate the difference between Winters's and Gorbman's examples. Gorbman's example relies on two different rhythms being present: the original, naturalistic rhythm of the cyclists, and the fixed formal rhythm of the downbeat. In the case of cartoon production, however, these two rhythms are elided by the bar sheet - the animators depict movement naturalistically, but they do it around the same meter as the music. When the chain of mice in *The Field Mouse* (Figure 1.14, D mm. 53-54) pass the wheat grains like footballs, their movements come across as both naturalistic and metrical. But this elision of two rhythms is crucial in understanding the audiovisual relationship of the MGM theatrical cartoon as opposed to live-action film. It is worth noting that this difference is down to the use of the bar sheet, and not simply the medium. Many animated cartoons - especially feature-length ones - feature natural rhythms that might well be manipulated in editing along the lines of Gorbman's hypothetical example.

Winters's instance of music seeming to be produced by the character's actions is, on the face of it, easier to exemplify with reference to cartoons. The chopping sound used for the mouse's mallet husking the wheat grains (Figure 1.14, C mm. 46-53), if it can be described as a percussive musical sound, also has the quality of a sound effect. The other instruments also seem to be describing the swing of the mallet, so one could potentially perceive the music as being produced by the mouse. But the very musicality of those sound effects lends them an independence from the mouse's actions. The chopping sound does not only follow the mouse, it also follows the downbeat. There is no point in even asking the question of what would happen if the mouse's movement and the downbeat ceased to coincide - the two are inseparable. Both Goldmark and Curtis have noted that musical instruments often provide sound effects for cartoons, like the bass drum used when the mice fall over at m. 43 (Figure 1.14), and that this complicates the 'classical' method of dividing the soundtrack into sound and music.⁶⁶ They both suggest this as a fundamental distinction between the cartoon and the live-action film. But the difference is in fact even more fundamental. It is not simply that the sound effects are recognizable as belonging to standard instruments. Even when crashes or bangs are recorded from life, they still behave musically.

⁶⁶ Goldmark, *Tunes for 'Toons*, p. 51; Curtis, 'The Sound of the Early Warner Bros. Cartoons', p. 198.

There is another contradiction in the literature that can be accounted for by referring to perception: whether or not the music appears to divulge information. In his 1935 handbook for film composers, Leonid Sabaneev cautions that

It is preferable that the music should give us an idea of the actor's hidden world of psychological emotions, rather than repeat (by translating it into the language of sounds) that which we have already seen on the screen without it - the gesture. [...] For example, if a fight is going on, the emphasizing of every shot fired, by a series of accents in the music, would merely result in unnecessary reduplication.⁶⁷

Sabaneev's implication is that exactly synchronized music conveys no new information. The premise that music could ever only 'reduplicate' what is onscreen has been refuted by both Cook and Kalinak, as well as other film musicologists.⁶⁸ The manner in which the reduplication takes place will always add something, whether it is the perceived presence of an editorial narrator deciding to add music, or the perception that the guns themselves are producing musical noises.

An equally strong objection to Mickey-Mousing has been raised by Loren G Buchanan, but for the opposite reason:

Someone goes up a stairs, for example, and the music follows right along, step by step. Each dramatic situation is easily "predicted" by the viewer unfortunate enough to hear this type of soundtrack, and the dramatic impact is thereby dulled, as it might be if a character said, "I'm expecting a phone call" shortly before the phone rang.⁶⁹

Clearly, music is able to give information even while copying onscreen movement. Buchanan's opinion that the music gives too much away is presumably a matter of taste - there are no doubt many horror-film aficionados who would claim the tension 'added' by the music (which may indeed seem redundant, in a strict sense, to many a wildly explicit slashing or chasing scenario) to be among its greatest effects. In *The Field Mouse*, the sense of threat associated with an approaching combine harvester is created by the music, in particular the score's lack of tonal centre during this entire section. The mounting tension as the machine gets closer to the mouse's home provides essential narrative support, as do similar instances in horror films. On the other

⁶⁷ Leonid Sabaneev, *Music for the Films: A Handbook for Composers and Conductors*, trans. by S. W. Pring (London: Sir Isaac Pitman & Sons, 1935), p. 49.

⁶⁸ Cook; Kalinak, *Settling the Score*.

⁶⁹ Loren G Buchanan, 'The Art of Composing Music Scores for Films', in *Film Music: From Violins to Video*, ed. by James L Limbacher (Metuchen, NJ: Scarecrow Press, 1974), pp. 29–32 (first publ. in *Motion Picture Herald*, 13 October 1965) (p. 29).

hand, there are moments of Mickey-Mousing in *The Field Mouse* that do not necessarily communicate very much. The corn husking sequence, for example (Figure 1.14, C mm. 46-53), does not relate much about the manner in which the mouse moves. It does not suggest any particular frame of mind, other than the cheerful one already established by the images. In a live action film, the decision might well be taken not to use music in this sort of scene. But the convention in cartoons was to have music constantly, the wider implications of which I discuss more fully in the following chapters. Here it suffices to say that there are moments of Mickey-Mousing that do not necessarily add anything obvious to the action they accompany.

One final contradiction in the literature concerns the way Mickey-Mousing is able to draw attention to particular aspects of the film. I have already implied that Mickey-Mousing calls attention to the editing process, because it is perceived to be an editing decision. It requires so much effort to bring about Mickey-Mousing, that the very use of it highlights the decisions made during scoring and editing. Goldmark asserts that Mickey-Mousing tended to ‘draw attention to the music’ itself,⁷⁰ but Scott Paulin suggests it is the image that is given the attention:

“mickey-mousing” carries narrational force as a kind of aural “close-up,” drawing attention to a particular event, object, or emotion in the frame that would be perceived differently with other or no music.⁷¹

Gorbman concurs with this when she defines Mickey-Mousing as ‘music making onscreen actions explicit’.⁷² Peter Larsen goes some way to reconciling Goldmark’s view with Paulin’s and Gorbman’s when he describes an instance where

Because the visual and musical events are coordinated, our attention is directed at the quick, rhythmic movement that the events share, while other possible aspects - in the music and the image - fade into the background.⁷³

It is not very difficult to see how the audience’s attention could be directed to each of these aspects in turn. Mickey-Mousing calls attention to the decision that

⁷⁰ Daniel Goldmark, ‘Drawing a New Narrative for Cartoon Music’, in *The Oxford Handbook of Film Music Studies*, ed. by David Neumeyer (Oxford; New York: Oxford University Press, 2014), pp. 229–244 (p. 230).

⁷¹ Scott D. Paulin, ‘Richard Wagner and the Fantasy of Cinematic Unity: The Idea of the Gesamtkunstwerk in the History and Theory of Film Music’, in *Music and Cinema*, ed. by James Buhler, Caryl Flinn, and David Neumeyer (Hanover, NH; London: University Press of New England, 2000), pp. 58–84 (p. 73).

⁷² Gorbman, *Unheard Melodies*, p. 88.

⁷³ Peter Larsen, *Film Music*, trans. by John Irons (London: Reaktion Books, 2005) p. 101.

has brought it into being, and from there to consider the purpose of that decision. The attention is transferred to the objects of that decision, namely the onscreen movement, or the music, or both.

More difficult to reconcile is Kalinak's observation that Mickey-Mousing was

a practice founded in the very principle of inaudibility. The vocal track in classical cinema anchors diegetic sound to the image by synchronizing it, masking the actual source of sonic production, the speakers, and fostering the illusion that the diegesis itself produces the sound. Mickey Mousing duplicates these conventions in terms of nondiegetic sound. Precisely synchronizing diegetic action to its musical accompaniment masks the actual source of sonic production, the offscreen orchestra, and renders the emanation of music natural and consequently inaudible. Musical accompaniment was thus positioned to effect perception, especially on the semiconscious level, without disrupting narrative credibility.⁷⁴

The suggestion that Mickey-Mousing could pass unnoticed, without drawing attention to the music or the onscreen movements, seems absurd. One clue seems to be in Kalinak's evocation of 'the modern listener'. Kalinak suggests there has been a change in convention since the early days of sound film, in which Mickey-Mousing was more prevalent. Modern live-action films do not routinely closely synchronize music and images, and so the very act of breaking convention by Mickey-Mousing calls attention to the decision to do so. This also suggests that, if a film were to employ Mickey-Mousing for a long period of time, its presence would become less obvious. Certainly, the idea of Mickey-Mousing being an 'aural close-up' seems to corroborate the idea that the effect would wear off over time. A single, brief instance of Mickey-Mousing would highlight what was being synchronized, but if all the movements and music in a film were similarly highlighted, the effect would be nullified. And, in fact, that seems to be exactly true of *The Field Mouse*, and of most of Bradley's scores for Harman and Ising. There are moments where the Mickey-Mousing stands out, and others where it passes almost unnoticed. At least one of the three mice who are balancing bushels on their heads is stepping to the metre of mm. 37-42 (Figure 1.14). But there is so much movement in the scene that this relatively minor detail does not stand out as an 'aural close-up', to use Paulin's term. Once the convention for Mickey-Mousing is established, it can pass unnoticed until some striking image or sound brings the relationship to the fore again.

⁷⁴ Kalinak, *Settling the Score*, p. 86.

In order to summarize the many possible effects that Mickey-Mousing may have, let us consider the following example from film composer George Burt, in which he explains why the composer must know as much detail about the onscreen movement as possible:

It is unlikely that every indication in the cue sheet will be synchronized with a musical event. Composers invariably check only certain things they want to “hit.” But it is important that they know when everything in the sequence takes place. Otherwise, embarrassing accidents can occur. For instance, suppose the editor fails to notate that the captain takes a swig of coffee at 10:79 seconds and the composer, forgetting this detail, writes a harp glissando. The “Mickey Mouse” result - where, as in cartoons, the music seems to mimic every action - could be devastating to the whole cue and cause the composer no small amount of anguish when the music is cut into the film.⁷⁵

Burt’s example is particularly useful because it highlights the main difference between Mickey-Mousing in live-action and the cartoon. The implication seems to be that the same gesture would be perfectly acceptable if the action were animated. We should be in a position to consider exactly why the coincidence of the captain’s swig of coffee with a harp glissando would be ‘embarrassing’ or ‘devastating’ in live-action, and relatively innocuous in the cartoon.

If we perceive that the music has been written after the editing has taken place, then we might, like Winters, consider the glissando to have been produced by the actor’s gesture. It would be an absurd sound effect for an event that, in reality, would produce no sound. In the comic genre of the cartoon, however, this sort of absurdity would be welcomed. On the other hand, if we perceive the music to have come first - if, for instance, the glissando is a flourish on the final downbeat of a longer phrase - we will consider the footage of the captain to have been edited to produce this effect. Either way, we will be made conscious of the editing and scoring process that takes place long after the actor has finished his job - the coincidence will seem to be intentional. On top of this, it will risk turning the natural, unmusical rhythm of the captain’s movements into something deliberate or dance-like - like Gorbman’s hypothetical manipulation of the cyclists. In the cartoon, these separate rhythms are elided - the action follows the beat in the first place.

⁷⁵ George Burt, *The Art of Film Music: Special Emphasis on Hugo Friedhofer, Alex North, David Raskin, Leonard Rosenman* (Boston: Northeastern University Press, 1994) pp. 225-226.

If we share something more like the inclinations of Sabaneev, we may feel that the harp glissando adds nothing to the film - it is merely duplicating the movement we have already witnessed. This is arguably more likely in the cartoon, where *Mickey-Mousing* is a constant presence and one single instance might not draw our attention. But in live-action film, it is more likely that the specific choice of a harp glissando will communicate something. Perhaps the harp's association with femininity will transfer to the captain, and the impression will be of a less rugged character than if he had swigged his coffee to a chorus of trumpets. Other instruments with strong connotations would perhaps have even stronger results: a trombone slide or a drummed flourish might give the impression that the captain's swig was a clownish gesture. Again, the comic aspect of the cartoon would render these absurdities welcome and probably effective.

The captain's swig and the harp glissando might both be highlighted, like a close-up. The audience's attention may be drawn from being made aware of an editorial decision to considering the swig, the glissando or both. Once again, the highlighting of an actor's naturalistic, possibly even subconscious, gesture would be unwelcome, as would the highlighting of a minor musical detail. But in the cartoon it would only be a problem insofar as it misled the audience about the importance of the captain's gesture.

The contradictions in the literature on *Mickey-Mousing* cannot be removed, because all the examples are, in some instances, correct reflections of a term whose usage has always been pliable and subject to critical reformulation. Still, I would argue that the most important underlying misconception about *Mickey-Mousing* is that it is a simple, easily understood, even dismissible technique with little nuance. In fact, direct synchronization of music and images creates a conundrum for the audience as to which is copying which - a problem that is not easily solved. The perception may be an instinct based on whether the images or the music seem to be independently whole - a naturalistic, unmusical movement may be expected to precede any musical planning. Similarly, a musical fragment that appears to have its own integrity, where its gestures have a musical *raison-d'être*, might not be perceived as following the images. But once the images and music follow the same rigid metre, regardless of any direct coincidence of sound and visual gesture, the perception may fall in either direction.

To return to my chosen example, in the short scene from *The Field Mouse* (Figure 1.14), I have described the mice as moving unmusically (at A), rhythmically and producing the musical sound effect (at C), and that the Grandfather mouse is dancing along to it while he is singing. But one could just as easily argue the opposite in all these cases. Whenever the music seems to have been decided on first, then the characters will appear to have been choreographed, and their movements will appear dance-like. If conversely the animation appears to have its own natural rhythm, then the music will come across as sound effects. The exact musical choices of the accompaniment can convey information about the characters or the narrative, even before it unfolds. But Mickey-Mousing is also conventional enough within the cartoon context that it occasionally passes unnoticed.

It would be possible to argue that the use of bar sheets - particularly ones that arrive pre-printed with eight bars on each stanza - forced Bradley into a metrical rigidity, and that Harman and Ising's use of the bar sheet made some level of synchronization inevitable. But even in the most pedantic instances of Mickey-Mousing the effects of audiovisual synchronization are in fact surprisingly diverse. We need not argue that Bradley was struggling against the practice, or that it was an unfortunate necessity of the technology, because within its constraints there is nevertheless a broad scope for various nuances of the audiovisual pairing.

While Mickey-Mousing contributed an essential component of Bradley's early style, there were other historical and cultural influences on his music and on Harman and Ising's cartoons more broadly that are worth considering.

iii. Stylistic Influences

In addition to having industry-wide influence, Disney's early association with Harman and Ising also had a personal impact on them. Indeed, the limited existing scholarship on Harman and Ising tends to consider Disney to be their sole influence. Leonard Maltin introduces the pair in his *Of Mice and Magic* - overall a somewhat Disney-centric study - by stating, 'though Harman and Ising worked separately, directing their own cartoons, they shared a common goal: to rival Disney's award-winning series, with its appealing characters, imaginative stories,

and elaborate trappings'.⁷⁶ Barrier sets out his history of their work for Schlesinger under the chapter 'Disney's Rivals, 1928-1937', and begins his account of their work at MGM with the words, 'On Valentine's Day 1934, Hugh Harman got another chance to go head to head with Walt Disney.'⁷⁷ Donald Crafton's recent book, which seeks to frame animation since the 1930s, does not overly emphasise Disney but is titled *Shadow of a Mouse* in part because, Crafton asserts, 'over the course of the 1930s Walt Disney Productions became the most important cartoon studio - artistically, culturally, and financially - before or since.'⁷⁸ But while Disney's personal influence, and direct artistic influence, on the pair are beyond doubt, the indirect influence of 1930s culture on Harman and Ising has been somewhat underestimated, and is perhaps more pertinent because it seems also to have been reflected in MGM's wider output during that time. There is also the fact that Bradley's own statements about the sort of cartoon he wanted to be involved in seem to match Harman and Ising's preferred aesthetic quite closely. It would appear that, although Disney may well have been the first to establish a particular kind of artistic seriousness in cartoons, and an emphasis on stories of the fairy-tale or fable variety, the resulting style nevertheless reflected wider cultural influences.

One of the defining characteristics of Harman and Ising's visual style was their emphasis on visual detail and experimental animation techniques, all designed to make the cartoon as beautiful as it could be. Their interest in developing their own methods and improving the visual style of the cartoons perhaps sprang from their early isolation from the animation industry at large. Had they lived in New York, Harman and Ising's artistic output would undoubtedly have been quite different. In 1921 and '22, when Harman and Ising respectively started animating, New York was the centre of the American animation world. Otto Messmer and Pat Sullivan had been writing, animating and producing *Felix the Cat* cartoons in New York since 1920. In that same year, Paul Terry and Amadee J. Van Beuren had formed Fable Studios, and the Fleischer brothers Max, Dave and Lou had formed Out of the Inkwell Films (later Fleischer Studios) in 1921. However, Harman and Ising began their careers in Kansas City, Missouri, at Disney's Laugh-O-Gram Films. Although they could all draw, none of

⁷⁶ Maltin, p. 281.

⁷⁷ Barrier, *Hollywood Cartoons*, p. 188.

⁷⁸ Donald Crafton, *Shadow of a Mouse: Performance, Belief, and World-Making in Animation* (London: University of California Press, 2013), p. xiv.

Disney's staff had experience of animating or filmmaking. Their isolation from the rest of the industry meant they had to teach themselves, which must have given them a unique perspective on the industry. In New York, new animators were taught the established formulas of a well-honed but relatively static production method. But in Kansas City, and later Hollywood, Disney's desire to learn and improve, prompted by the financial need to work more efficiently and produce attractively innovative products, blossomed into an ethos of constant innovation. This ethos eventually allowed Disney to outstrip his competitors commercially and, arguably, aesthetically as well.

Disney's influence on Hollywood animation was far-reaching, but his immediate influence on Harman and Ising was as much personal as it was professional. They were great friends, and close in age (Disney was born in December 1901, Harman and Ising both in August 1903). In the early days, they struggled together to learn and develop their craft, relying heavily on one textbook on animation - *Animated Cartoons: How They Are Made, Their Origin and Development* by Edwin G Lutz - from which they learned the mechanics of how to photograph drawings.⁷⁹ Disney had found this book, which also included some time- and energy-saving methods of production that were rapidly gaining popularity in New York, in the public library. They copied what they could of the New York cartoons, particularly those of Paul Terry, which they obtained from a local film distribution exchange.⁸⁰ They would cut out and steal footage of repetitive actions, such as a character running or swimming, to use as studies. Ising later recalled that Disney also arranged a life drawing class so that they could 'learn to draw a little better'.⁸¹ After the working day was over, they would often spend the evenings together, perhaps mulling over a cartoon story idea or debating the future of the industry.

Artistic education later became a defining characteristic of both Disney's and MGM's cartoon style. By the early 1930s, once Disney had established a hierarchical structure within animation production, new employees at his studio would serve a kind of apprenticeship, beginning as inbetweeners, and working their way up via assistant positions to supervising animators if they had the talent. On top of this, art classes remained mandatory throughout the

⁷⁹ Edwin G. Lutz, *Animated Cartoons: How They Are Made, Their Origin and Development* (New York: Charles Scribner, 1920)

⁸⁰ Barrier, 'Interviews: Hugh Harman' (para. 15 of 59).

⁸¹ Ising, quoted in Barrier, *Hollywood Cartoons* p. 82.

animator's professional employment. Disney had never lost the instinct he had had in the Kansas City days - so alien to the formulaic practices of the New York studios - that better drawing skills would lead to better cartoons. He hired Don Graham, an instructor at the Chouinard Art School in Los Angeles, to take art seminars and teach life drawing and movement analysis classes.⁸² Some of the older animators resented this at first, but it soon became a reason to work for Disney. Animator Al Eugster took a pay cut in order to work for Disney:

I was making \$135 [at Celebrity Productions] and I went to Disney for \$50. I figured that it was my tuition fee, and that's what it amounted to - a four-year course in animation. I think it was worth it.⁸³

The trend for in-house training eventually spread across the Hollywood studios, helped by the constant movement of individual animators from one studio to another. Harman remembered similar classes being conducted at Warner Bros. in 1932, and later at their independent Harman-Ising studio, where Bradley worked, and which provided MGM's first cartoons:

About 1937, Bob Stokes and Lee Blair organized our own art classes. They wanted to do it on their own; they thought it would be a good thing, as Disney was doing it. I noticed, with amazement, the progression of these artists from that point on.⁸⁴

The quest for progress in visual art was a main characteristic of Harman and Ising's work at MGM. Many of the cartoons are visually intricate, with detailed characters and animated elements of both background and foreground. The amount of extra time needed when compared to a simpler cartoon drove up the cost of production, which frequently got both Harman and Ising into trouble with their employers and contractors.⁸⁵ The pursuit of excellence also had a great effect on the music required. The overall stylistic direction of the cartoons was away from slapstick comedy and towards aesthetic beauty. As Harman later said, by 1934 he had

a desire to make refined stuff ... a desire to get away from common gags. They became so repetitive, within the industry, and everything had a certain tone to it ... it became tiring. I just thought how good it would be to make some cartoons that had no humor in them, unless it was very mild, restrained stuff.⁸⁶

⁸² Maltin, p. 43. More information on Disney's art classes can be found in Shamus Culhane, *Talking Animals and Other People* (Boston: Da Capo, 1998).

⁸³ Al Eugster, quoted in Maltin, pp. 44-45.

⁸⁴ Barrier, 'Interviews: Hugh Harman' (para. 19 of 59).

⁸⁵ Barrier, *Hollywood Cartoons*, p. 191

⁸⁶ Barrier, *Hollywood Cartoons*, p. 189.

Visually speaking, 'refined stuff' equated to the sentimental, childlike and picturesque style that was well established at Disney by the time the Harman-Ising studio was founded. The simplest example of this stylistic change is Harman's *Run Sheep, Run!* (1935), which featured Bosko, the cartoon boy from the *Looney Tunes*. Although his first two appearances in *Happy Harmonies* cartoons are similar to those made for Schlesinger, Bosko was then drastically redesigned to reflect the more detailed aesthetic the animators now had at their command (see Figure 1.1). Superficially, it would appear as though Bosko had finally escaped the influence of Disney's Mickey Mouse, which had always been apparent (see Figure 1.2), but Harman could be described as trading one Disney resemblance for another.

Disney's two main series of short cartoons were the *Mickey Mouse* cartoons and the *Silly Symphonies*. The latter was in part devised by composer Stalling in order to showcase ways in which the cartoon could be paired with music, and it tended to involve different characters in each cartoon, often retelling a fairy-tale or fable.⁸⁷ *Three Little Pigs* (1933) was arguably the most successful *Silly Symphony*, which earned Disney and Universal Studios (to whom Disney was once again selling cartoons) a hundred and twenty-five thousand dollars in its first year.⁸⁸

The influence of *Three Little Pigs* on *Run Sheep, Run!* is clear. Not only is the source similar (*Run Sheep, Run!* is loosely based on the Aesop fable 'The Boy Who Cried Wolf') but both stories are structured around a central song. It is worth noting that the prominent inclusion of a song was already a familiar technique to Harman and Ising from their days at Warner Bros. The *Merrie Melodies* series in particular was designed to feature and publicize songs available from the Warner Bros. publishing company.⁸⁹ Nevertheless, there are obvious similarities between 'Who's Afraid of the Big Bad Wolf', which had enormous success independently of *Three Little Pigs*, and 'Stay at Home', are easy to hear. Each is childlike, upbeat and major, with a leaping melody and

⁸⁷ See Jacobs, p. 64. For an in-depth study of the influence of the fairy-tale on Hollywood films, and the resulting Americanization and 'Disneyfication' of fairy-tales, see Jack Zipes, *The Enchanted Screen: The Unknown History of Fairy-Tale Films* (New York; Abingdon, Oxon: Routledge, 2011).

⁸⁸ Barrier, *Hollywood Cartoons*, p. 106. Leonard Maltin refers to *Three Little Pigs* as 'the most popular animated subject of all time.' See Maltin, p. 41.

⁸⁹ Maltin, p. 224.

simple chord sequence. Bosko dances while singing and accompanies himself on the piccolo, as does the first little pig.⁹⁰

Another similarity is the way in which the song is used. In some of the *Merrie Melodies* cartoons the song is presented in a more or less staged performance which may even halt the narrative, but in both *Three Little Pigs* and *Run Sheep, Run!* the song is more integrated into the narrative. In both cartoons, the song returns whenever the characters are at rest, in between action sequences involving the wolf (or, in Bosko's case, an absent wolf). The entire cartoon has a musicality which is maintained during the song's absence by having all the dialogue spoken in rhyme. The popularity of *Three Little Pigs* no doubt helped to cement the idea of a cartoon with a central song into a formula that Harman and Ising repeated in many of the *Happy Harmonies*. *The Discontented Canary* (dir. Ising, 1934), *Hey Hey Fever*, *The Lost Chick* and *Poor Little Me* (all dir. Harman, 1935), *When the Cat's Away*, *The Calico Dragon*, *The Chinese Nightingale* and *The Early Bird and the Worm* (all dir. Ising, 1935) all had a song to provide either the narrative setting, the moral of the tale, or both.⁹¹

While Disney's influence on Harman and Ising is undeniable, there are other influences that tend to go unacknowledged. The greatest of these was the desire to respond to the Great Depression, which was felt across Hollywood and, it seems, especially at MGM. As cultural historian Morris Dickstein explains,

The mood of the Great Depression was defined not only by hard times and a coming world crisis but also by all the attempts to cheer people up - or else to sober them up into facing what was happening. Though poor economically, the decade was rich in both popular fantasy and trenchant social criticism. This is the fundamental split in depression culture: on one hand, the effort to grapple with unprecedented economic disaster, to explain and understand it; on the other hand, the need to get away, to create art and entertainment to distract people from their trouble, which became another way of coming to terms with it.⁹²

Crafton has shown that this binary does not necessarily divide Hollywood's output into separate categories. The cartoon, along with much of Hollywood's

⁹⁰ Bosko is depicted with a recorder, but the instrument on the soundtrack is a piccolo.

⁹¹ The on-screen credits for all the *Happy Harmonies* cartoons were jointly shared by Harman and Ising, even though each director worked separately. Once they were working for MGM as employees, they were given solo credits. The attribution to each individual for the earlier cartoons comes from Maltin pp. 440-41.

⁹² Morris Dickstein, 'Depression Culture: The Dream of Mobility', in *Radical Revisions: Rereading 1930s Culture*, ed. by Bill Mullen and Sherry Linkon (Chicago: University of Illinois Press, 1996), pp. 225-241 (pp. 225-266).

comic output, was able simultaneously to present an escapist entertainment while also addressing some societal fears in an oblique, and therefore possibly less threatening - way:

On the one hand, filmmakers publicly clung to their position that animated performances were nothing but entertainment and if the laughs they elicited did some good, well so much the better. On the other hand, because the films depend on structures and narratives that traditionally have been vehicles for allegory and moral instruction, they invite - or demand - ideological interpretations.⁹³

Crafton goes on to propose a political reading of Disney's *Three Little Pigs* as an allegory where the wolf represents the Depression and the pigs represent the average worker trying, literally or figuratively, to keep the wolf from the door. He discusses the extent to which one can read support for Franklin D. Roosevelt's politics within the cartoon. Some of Harman and Ising's cartoons also invite an allegorical interpretive reading, although not necessarily of such a specific type. What comes across from viewing the cartoons as a whole is various allegorical representations of moral values, such as the importance of home, communities and families, which can also be found in much of America's cinematic output of the time, including both Hollywood and the New York studios.

Despite acknowledging that the use of allegory disguised as escapist entertainment was an industry-wide trend, Crafton refers to Disney as 'exhibit number one, always denying the existence of social message in his films'. We could entertain the possibility that Harman and Ising were yet again simply following Disney's lead in providing American audiences with apparently shallow narratives which in fact reinforced societal mores and addressed the problems of the Depression in a non-threatening way. But this might give Disney too much credit, since the personal tastes of Louis B. Mayer, MGM's autocratic head, may have been a more significant influence on the cartoon studio's output. In any case, it would be difficult to argue that Mayer's own preoccupations stemmed from a desire to copy Disney.

The description of Mayer's ideology provided by biographer Scott Eyman seems to correlate fairly well with Crafton's description of the dual role of Hollywood films as both escapist and morally educational:

What Mayer wanted in his movies - and usually got - was an idealized vision of men, women and the world they lived in. Mayer fervently

⁹³ Crafton, *Shadow of a Mouse*, p. 217.

believed that movies were not a reflection of life, but an escape from life.⁹⁴

The form this escape took was a highly moral one, influenced by Mayer's strong desire not to offend audiences, particularly his own family. Another biographer, Bosley Crowther, quotes Mayer as having said:

I will make only pictures that I won't be ashamed to have my children see, [...] I'm determined that my little Edie and my little Irene will never be embarrassed. And they won't, if all my pictures are moral and clean.⁹⁵

Another similar quote from Mayer can be found in Samuel Marx's biography:

What will people say about Louis B. Mayer if he puts his name on a picture he's ashamed to let his family see?⁹⁶

Perhaps unsurprisingly given this attitude towards his own family, Mayer put family and the home at the centre of his films' moral compass. As Eyman as remarked:

It's no accident that the primary motivation in so many of the great MGM films, from *The Wizard of Oz* to *Meet Me in St Louis*, from *The Human Comedy* to *The Yearling*, is home - its creation, its preservation or returning to it.⁹⁷

Mayer's obsession with community and home chimed perfectly with the public feeling of the 1930s. As several critics have noted, the popularity of *The Wizard of Oz* and *Gone With the Wind* (both dir. Victor Fleming, 1939) is greatly due to their shared theme of home, which attained added importance during the Depression. As cultural historian Richard Selcer points out,

At this time in American history, home and family were still synonymous terms; in fact, they were virtually interchangeable. And despite the steady encroachment of urban civilization, home for millions of Americans still meant the family farm. It had provided a haven against social change, political turmoil, and international uncertainty for as far back as anyone could remember. Now, that home was being threatened. The family farm as an important part of American society virtually disappeared in the 1930s as a result of the Depression. Its inexorable extinction left a void in the American heart that Hollywood rushed to fill. The movies idealized the American home in its traditional rural setting and found in it a theme that permitted countless variations of setting and plot, ranging from the

⁹⁴ Scott Eyman, *Lion of Hollywood: The Life and Legend of Louis B. Mayer* (London: Simon and Schuster, 2012), p. 8.

⁹⁵ Bosley Crowther, *Hollywood Rajah: The Life and Times of Louis B. Mayer* (New York: Holt, Rinehart and Winston, 1960), p. 83.

⁹⁶ Samuel Marx, *Mayer and Thalberg: The Make-Believe Saints* (New York: Random House, 1975), p. 4.

⁹⁷ Eyman, p. 514

Wild West of *Stagecoach* (1939) to the pleasant suburbs of Andy Hardy.⁹⁸

This, then, beyond the competition with Disney, should be recognised as the broader informing context of the stylistic direction Harman and Ising took during their tenure at MGM. And the idealized home is indeed central to many of their MGM cartoons.

As well as Bosko's song 'Stay at Home', the theme of home is visible in *The Discontented Canary*, which was the very first cartoon Harman-Ising studios made for MGM. It concerns a pet bird with a similar narrative trajectory to Dorothy's in *Oz*: wishing to escape the dull life of a cage, the canary flies out of the open door one day only to find that the wider world is more hostile than he could have imagined. He has to battle a storm and a cat in order to find his way back, at last, to the safety of his suburban home. Other *Happy Harmonies* that have the importance of home at their heart are *The Lost Chick*, *The Chinese Nightingale* and *The Old Plantation* (dir. Ising, 1935). The first cartoon Ising directed after joining MGM as an employee, *The Little Goldfish* (1939), also shares the narrative of the repentant runaway who gratefully wakes up in their long-lost home, as does Harman's *The Little Mole*. Meanwhile, the pure escapism of Ising's *The Milky Way* (1940), in which three kittens tie helium balloons to a basket and float up into a fanciful realm of milk-filled stars, must have struck some sort of chord, as it earned an Academy Award in the 'Short Subject: Cartoon' category.⁹⁹

Another aspect of Harman and Ising's cartoons that may have as much to do with MGM's influence as Disney's is the way in which mothers are depicted. Since home and family were bound up so closely, the depiction of one often reinforced the depiction of the other. As Eyman explains, Mayer had a strongly conservative view of how women ought to be portrayed, in which

marriage was sacrosanct and mothers were objects of veneration, hence completely desexualized. When MGM made *The Human Comedy*, Mayer's favourite of the eight hundred movies produced under his aegis, Fay Bainter was cast as the mother of a five-year-old. At the time, Bainter was a matronly woman in her mid-fifties.¹⁰⁰

⁹⁸ Richard F. Selcer, 'From Tara to Oz and Home Again: Home Sweet Movies', *Journal of Popular Film and Television*, 18 (1990), 52–63, (pp. 57–58)

⁹⁹ Academy of Motion Pictures Arts and Sciences, 'Academy Awards Database', *Oscars.org* <<http://awardsdatabase.oscars.org>> [accessed 23 January 2015]

¹⁰⁰ Eyman, p. 8

Crowther has made similar observations about the virtue of female characters found in some of Mayer's films:

Most of the Anita Stewart and Mildred Harris films followed the general formula of the poor but decent girl conducting herself with honest purpose always against temptations and harsh assaults, with a full reward for her virtue bestowed in the happy end. He was downright passionate about virtue. Some producers and directors were following a trend toward fleshy, salacious pictures, such as *Male and Female* of Cecil B. De Mille or the *Sheik* films of Rudolph Valentino or *The Queen of Sheba* of Fox. But Mayer stuck to dramas of honor, fidelity, and virtue-sorely-tried, for which there were terminal compensations. He doted on self-sacrifice.¹⁰¹

Just as Mayer's belief in the importance of family sprang from his personal life, his preoccupation with female virtue seems to have been echoed in his attitude towards his daughters' upbringing:

He was violently opposed to his teen-age daughters going out at night and forbade such behaviour until the girls were virtually grown. Then he diligently screened their venturesome escorts and insisted they have the girls home by midnight. His stern and repeated precept was that a woman's place was in the home, and he saw to it that his wife taught their daughters how to cook and sew.¹⁰²

The ideal of the wife and mother who forms the centre of the all-important home through her fulfilment of domestic duties is found in many of Harman and Ising's mother characters, who tend like Fay Bainter's character to be desexualized and matronly. Regardless of species, they are typically depicted wearing glasses and an apron, cooking, cleaning or knitting. Fathers are usually absent, which has the joint effect of further removing any possible sexual relationship and of increasing the importance of the mother figure as head of the household.

It is doubtful that Mayer exerted any direct artistic control over the cartoon department, since he seems to have been happy to delegate all responsibility for it to Quimby. Quimby seems to have been left completely in charge of animation, even during the period between the termination of the contract with the independent Harman-Ising studio and their eventual re-hiring as direct employees. During that year, the department was extremely badly managed, with several producers being hired and fired in a very short time frame.¹⁰³ I am therefore not making the case for Mayer's influence over

¹⁰¹ Crowther, p. 81.

¹⁰² Crowther, p. 151.

¹⁰³ See Barrier, *Hollywood Cartoons*, pp. 288-291; Hanna and Ito, pp. 33-38; Barbera, pp. 68-73.

Disney's. Rather, it would seem that Disney's and Mayer's tendencies were both driven by the desire to provide the American public with an escapist entertainment that reflected their preoccupations. And in fact, the output of the two studios was occasionally directly compared by the media. *The Wizard of Oz*, the most famous example of MGM's escapist style which also promotes the idea that 'there's no place like home', was considered to be the studio's answer to Disney's *Snow White*.¹⁰⁴ It is also worth bearing in mind that Harman and Ising resisted the trend away from the sentimental and towards the comedic, which was led by Schlesinger's studio and well established by 1940. By this stage, Disney had begun to place more emphasis on full-length features.¹⁰⁵ Disney continued to make short cartoons, but not of the kind Harman and Ising were determined to carry on producing. They both ignored Quimby's continual requests for funnier cartoons, which is perhaps why Quimby promoted Hanna and Barbera, who were part of Ising's unit, to directors, hired Avery in 1941, and ultimately refused to extend the contracts of Harman and Ising when they expired in 1941 and 1942 respectively.¹⁰⁶ Harman and Ising's cartoons, while displaying a direct influence from Disney, also reflected the broader post-Depression-era preoccupations visible in both Disney's and MGM's work of the time. Perhaps they simply had a personal dislike for the newer style of cartoons. In any case it would seem, given their determination to continue making sentimental cartoons after fashion had moved on, that they were personally invested in that aesthetic.¹⁰⁷

Although it might be tempting, given how progressive Bradley's music later became, to suggest the material of Harman and Ising's cartoons held Bradley back as a composer, it is doubtful Bradley himself was dissatisfied with the music he was writing at that time. On this point one potentially suggestive sidelight can be found in the music he composed independently of the animation studio. His small corpus of concert music, all of which was written in this period, never strays very far from a relatively narrow late-Romantic idiom. Figure 1.15 is an excerpt from Bradley's 1934 oratorio *Thanatopsis*, and its style

¹⁰⁴ 'Screen News Here and in Hollywood: 'The Wizard of Oz' in Demand Following the Box Office Success of 'Snow White'', *The New York Times*, 19 February 1938, p. 19

¹⁰⁵ Barrier, *Hollywood Cartoons*, pp. 300-301.

¹⁰⁶ Barrier, *Hollywood Cartoons*, pp. 300-301.

¹⁰⁷ Eyman makes a similar observation about Mayer's refusal to respond to the fashion for noir in the late 1940s, which suggests that sentimentality had a far greater attraction for certain filmmakers than simply a desire to emulate Disney's success. See Eyman, p. 380.

clearly resonates with that of Bradley's contemporaneous cartoon music. And in 1939, when he composed an orchestral suite called *Cartoonia*, Bradley was content to base some of its movements directly on music for much earlier cartoons. Although some of the music was written especially for *Cartoonia*, the first movement, 'Once Upon a Time', is adapted with little alteration from the opening of *The Calico Dragon* (dir. Ising, 1935).

Bradley was rarely given an opportunity to state his own ideals about cartoon style, but some of the remarks he made in interview and in his own writings suggest that he was similarly invested in narratives, as opposed to jokes. In his article 'Cartoon Music of the Future', published in 1941, he set out his clearest statement of his hopes for the cartoon score. His focus was of course directed towards purely musical matters, and the practical considerations of bringing the music to the screen. However, there are one or two telling remarks that suggest he agreed with Harman and Ising's choices of subject matter, and the care needed to depict them:

[Ideally,] they will not be called 'Cartoons' at all but, rather, 'Fantasies,' in which slap-stick and impossible physical gags will be replaced by stories of great beauty and artistic (not arty) value. Think of 'Pelleas and Melisande,' [sic] with the mystical beauty of Debussy's music, animated by artists of great talent, and mise en scene by Dali! American Indian legends and the great wealth of Old World folk-lore would provide endless subject matter both to authors and composers.¹⁰⁸

Clearly, Bradley was quite happy with the kind of cartoons Harman and Ising were producing. Even as late as 1941, he too saw a future for more serious narratives.

All of these concerns go some way towards accounting for the influences on Bradley's 1930s style, which can be understood as the departure point for his later work with Avery, Hanna and Barbera. During the 1940s he would develop a more advanced approach to harmony, which would replace and even perhaps parody his earlier work. But the sentimental escapism, the idealization of home and the emphasis on aesthetic beauty in Harman and Ising's cartoons required scores that were similarly sentimental and evocative of the same late-Romantic, but simple, style of art.

¹⁰⁸ Scott Bradley, 'Cartoon Music of the Future', in Goldmark, *Tunes for 'Toons*, pp. 167-169 (first publ. in *Pacific Coast Musician*, 30 (June 1941), 28) (p. 168).

In terms of music, the style was characterized by tonal harmonies and simple melodies, often incorporating pre-existing folk-tunes, nursery rhymes and well-known classical pieces. Bradley often used leitmotifs, which reflected the trend of Hollywood composers generally, and endeavoured to provide something approaching a symphonic style of orchestration with the limited number of instrumentalists he had available (surviving scores show this to be generally around twenty). Occasionally, classical pieces served as the basis for the narrative, such as *Tale of the Vienna Woods* (dir. Harman, 1932) and *The Blue Danube* (1939). One cartoon, *Dance of the Weed* (1941), treated Bradley's score the same way - his music was composed first and the story worked out around it.¹⁰⁹ Although these cartoons are the exception, they give an indication of the sort of music Bradley was expected to provide - orchestral pieces in the familiar late Romantic, often somewhat schmaltzy idiom comparable to a great many contemporaneous film scores.

Although they were expressed through an orchestral idiom, many of the scores quoted liberally from pre-existing popular songs. The preoccupations of the wider culture - of home and community, its importance and its problems - were sometimes emblemized within the cartoons by the melodies quoted. The idealization of home - and in particular the homestead - had begun decades before film and, as Selcer points out, is visible in a number of songs:

The central theme of home in the nineteenth century is also to be found in the popularity of the many "home" songs of the period, some of the most notable being "Old Folks at Home," "My Old Kentucky Home," "Home Sweet Home," and "Home on the Range." No one was better at capturing the popular mood in song than Stephen Foster whose "Old Folks at Home" first swept the nation in the same year (1852) that saw *Uncle Tom's Cabin* making literary waves. Foster's songs "sanctified" the rural home, placing it on a plane only slightly lower than a home in Heaven.¹¹⁰

Although Selcer does not dwell on this point, Foster's songs often masqueraded as folk songs originating from the very environment they were depicting. Bradley incorporated a number of Foster's melodies into his scores, and although that does not set him apart from any other cartoon composer of the time, the message of them is often echoed earnestly by the cartoon's narrative.¹¹¹ *The Old*

¹⁰⁹ Scott Bradley, 'Music in Cartoons', in *The Cartoon Music Book*, ed. by Daniel Goldmark and Yuval Taylor (Chicago: A Cappella, 2002), pp. 115–120 (first publ. in *Film Music Notes*, 4.3 (December 1944) n.p.).

¹¹⁰ Selcer, (p. 55).

¹¹¹ Carl Stalling, for example, often used Stephen Foster songs to depict the Old South. See Goldmark, *Tunes for 'Toons*, p. 33.

Plantation, for example, features the Foster songs *The Old Kentucky Home*, *Old Black Joe*, *Come Where My Love Lies Dreaming* and *The Old Folks at Home*. The characters, who are all toys of various kinds, live in a doll's house referred to literally as 'the old Kentucky home', and the plot concerns an attempt to save it from repossession. The characters of Harman and Ising's cartoons were often toys or animals, which gives the cartoons an escapist air of gentle allegory or fable, while the music helps reinforce the connection to the wider culture.

As well as using identifiable leitmotifs and quoted melodies, Bradley's music often provided more literal depictions of the movements on the screen. In order to consider how these elements worked together, it is worth looking at an example more closely.

iv. The Little Mole

A very typical example of Bradley's style for Harman and Ising's cartoons can be found in *The Little Mole*, which is one of the most sentimental cartoons MGM ever made. In it, the eponymous Sonny is warned by his mother - a typically matronly, aproned figure who cooks almost constantly - that when he goes out to play he should stay near home, because 'we moles don't see very well.' His favourite pastime is to sit outside the house gazing at what he perceives to be a 'fairy palace', which is actually a rubbish heap. When a travelling salesman - a skunk - sells him a pair of glasses, Sonny sees his fairy palace for what it is, and wanders away looking for more beauty. After a series of picturesque encounters with a butterfly, a bee and a trio of bear cubs, his glasses break and he cannot find his way home. He wanders blindly into the river and, after being both sucked down a whirlpool and flung over a waterfall, is washed up half-drowned on the bank near his house, where his mother finds him. When she brings him back home he is delighted to find that he can once again see his fairy palace. 'Oh!' he exclaims in the cartoon's closing remark, 'It was there all the time!' One is unlikely to find a clearer example of the trope, 'be it ever so humble, there's no place like home', or the idea that if one is dissatisfied with home it is a failure on one's own part to appreciate its virtues, both of which were embodied most famously by *The Wizard of Oz*.

In Bradley's score, several recurring themes operate as leitmotifs in the most basic sense of appearing whenever a particular character is present or mentioned. These generally are a combination of pre-existing melodies and

original compositions. Sonny has his own original theme (Figure 1.4), a playful, major melody that is transformed into something more urgent when he is in danger, but he is also often accompanied by the old folk-melody 'Ah, vous dirai-je, Maman', commonly known as the children's songs 'Twinkle, Twinkle Little Star' and 'The Alphabet Song'. An original theme is also often played in association with the 'fairy palace' (Figure 1.6), and later recurs when Sonny is lost and remembering his mother, which suggests it might also represent home. The skunk sings his own short theme, to the tune of 'The Girl I Left Behind Me', and this melody also recurs when Sonny later remembers him.

In addition to the recurring themes, there are some melodies that occur only once. The folk tune 'Carnival of Venice' and the nursery rhyme 'Oh Dear! What Can the Matter Be?' are both heard during the salesman's pitch, while the bear cubs are accompanied by a distinctive, and probably original, theme that does not reappear.¹¹² Frequently, the connection between all these themes and their respective characters finds reinforcement through Mickey-Mousing. Furthermore, the themes for Sonny and for the bears seem quite clearly based on an attempt to parallel their respective distinctive ways of moving, a connection further reinforced by the quick switches from one theme to another when the different characters appear onscreen.

The overall tone of the cartoon and its music is one of playfulness and prettiness, rather than threat or danger. Even in the direst situation, when Sonny is at the bottom of the river, Harman inserts a school of pretty fish. When Sonny lets out a desperate cry for help, Bradley accompanies the issuing bubbles with a graceful ascending flute gesture (Figure 1.7). Similarly, when Sonny falls off the cliff and over a waterfall, his descents are accompanied by harp and string glissandos respectively. The themes given most prominence in the cartoon are those of Sonny and his fairy palace. They are both characterized by tonal stability and a marked, even saccharine sentimentality. The theme for the fairy palace (and, by extension, Sonny's home) is the most heart-tuggingly sentimental of all. Its yearning upward contour oozes schmaltziness, as does the full orchestration of thickly voiced chords - a grand Wagnerian gesture, but lacking all tonal complexity (see Figure 1.6). The return of this grandiloquent

¹¹² It is always difficult to disprove the pre-existence of a melody. Similarly, I suspect the music that accompanies Sonny's hasty retreat from a bee to be the 'Gavotte en Rondeau' from Bach's *Partita No. 3 in E Major* (BWV 1006). There is a striking similarity, but no obvious reason why Bradley should have quoted it, so impossible to prove.

gesture at the end of the cartoon reinforces the apparent sincerity of the allegorical message that home is venerable, since it seems to convey a wholly sincere sentiment. The simplicity of Sonny's theme, which Bradley deliberately juxtaposes with 'Ah, vous dirai-je, Maman' in a way that highlights their similarity (see Figure 1.5), confers a guileless air on Sonny, who apart from his gullibility is portrayed, of course, as having no character flaws at all.

While one might expect to find contrast in the themes for the somewhat dubious character of the skunk, but 'The Girl I Left Behind Me' is just as cheerful a melody as Sonny's. Those accompanying the sales pitch are more indicative of his character, given the urban connotations of 'Carnival of Venice' and 'Oh Dear! What Can the Matter Be?', with their longstanding ties to circus music, jazz bands, and of course film music accompaniments. The triple time signature and the orchestration of woodwinds and glockenspiel are slightly gaudy by comparison to Sonny's themes, in keeping with the showiness of the skunk's salesmanship. Nevertheless, there is no great contrast in any of the themes from the generally cheerful, and tonally stable, idiom Bradley seems to have favoured at this stage in his career. Even the theme for the trio of bears, while in a minor mode, is upbeat and playful. Bradley could, instead, have chosen to emphasise the possible threat to Sonny - it is, after all, the bears whose boisterous play results in Sonny's glasses being broken.

While the basically cheerful tone is always more or less present, there are still, thankfully, a few contrasting strokes, without which the cartoon would seem very dull indeed. Musical contrast, rather than being between themes, is provided when those themes disappear. When Sonny is knocked over or is otherwise not in control of his actions, the music matches the visual movements gesture for gesture. When the bear throws him into the air, his arcing trajectory is matched by a rising and falling arpeggio, while descending scales and sequences accompany Sonny's falls into the river, down a long whirlpool vortex, and over a waterfall. Later in his career, Bradley would abandon tonality for these gestures (see for example Figures 2.1, 2.3 and 2.4, where Bradley accompanies Jerry and Tom with twelve-tone phrases, and bars 228-229 of Figure 3.3, where Jerry's hasty departure is accompanied by less tonally-stable scales). But here, the contrast is not one of tonality, nor of instrumental timbre, but of metre: the themes have a certain metrical stability and sense of completion, reinforced by their symmetry. But the scalar and sequential

gestures are metrically fragmented, which imbues a sense of unease and unpredictability.

The contrast between the recurring themes and what we might call gestural phrases coincides with a change in the kind of Mickey-Mousing taking place. Any given theme, for instance Sonny's theme, has a certain musical independence, even when the character moves in time to it. The theme does not rely on the images for its coherence. But the music appears to give up its independence when it sacrifices metre in order to match a physical movement. The physical gestures seem to be highlighted by this shift in apparent hierarchy, whenever the music subordinates itself more fully to the image. The 'aural close-up' effect described by Paulin is achieved even though Mickey-Mousing of one kind or another occurs constantly. Despite the ubiquity of music and images moving together throughout the cartoon, the constantly Mickey-Mousing soundtrack is nevertheless able to provide contrast through the kind of synchronization taking place.

The Little Mole is a very typical example of Bradley's music for the cartoons of Harman and Ising. The stable tonality and orchestration throughout underline the overriding atmosphere of playfulness, even in the scenes of most danger. Interest is provided by the contrast between two forms of Mickey-Mousing, the first being the character's themes, which appear to follow their own independent musical courses, while the second is a musical gesture more closely matched to an onscreen movement. When the music switches from one kind of Mickey-Mousing to another, it appears to surrender its independence in order to portray something onscreen, giving the effect of a highlight or close-up.

v. *The Field Mouse*

Bradley seems to have shared Harman and Ising's belief that the cartoon could be a serious artform. In 'Cartoon Music of the Future', Bradley also expressed the hope that the music would be given more prominence, and 'composed in the symphonic poem manner, i.e., written to a definite program and recorded before a foot of animation is in production'.¹¹³ The kind of music Bradley had in mind seems to have been more progressive than the quasi-Romantic idiom demonstrated by *The Little Mole*. He suggests that:

¹¹³ Bradley, 'Cartoon Music of the Future', (p. 167).

A Shostakovitch, or a Kodaly, capable of writing such clever humor as 'Hary Janos,' or Prokofieff with his 'Peter and the Wolf,' would find a fertile field for their amazing talents. And their collaborators will be writers of the highest type, capable of adapting their talents to the music.¹¹⁴

Goldmark has explored the extent to which *Dance of the Weed* constitutes an enactment of some of the creative ideals expressed in his article. The music for *Dance of the Weed* was written before the cartoon was animated, and it also contains no dialogue, which was something else Bradley desired. Goldmark concludes that 'the music does not justify Bradley's feelings that the typical scoring process should be reversed, mainly because it never establishes a substantial connection with the action.'¹¹⁵ But in truth, the fault surely lies with the animators, rather than Bradley, since the composer on this occasion had little control over the process of fitting action and music together. Bradley seems to have understood that the success of the cartoon would depend upon the animators 'adapting their talents to the music', and so it seems did Ising. While the latter retained producer credit, he gave the role of director to Jerry Brewer, who had experience of animating to music, since he had helped to write 'The Nutcracker Suite' portion of Disney's *Fantasia*.¹¹⁶ Since it seems that even Brewer was unable to create a strong connection between music and screen, perhaps the reversal of production methods - from composition to animation - was simply too far outside the animators' expertise for them to do justice to Bradley's score.

Another candidate for a cartoon that embraces Bradley's ideals is Harman's *The Field Mouse*. While it was scored in the usual manner, after the animation had been specified, it contains examples of far more modern-sounding music. It is also possibly a slightly more profound response to the events of the Great Depression than the usual escapist fare. The somewhat facile nature of the story lines make most of the cartoons from this period somewhat negligible as social commentary. Perhaps it is due to the absence of anything ugly or violent that makes them ill-equipped to comment on what was a fairly ugly and violent historical period. This theory would seem to be borne out by the fact that the rare occurrences of genuinely violent actions are the most interesting narratively and musically speaking. *The Field Mouse* gave Bradley an opportunity

¹¹⁴ Bradley, 'Cartoon Music of the Future', (p. 167).

¹¹⁵ Goldmark, *Tunes for 'Toons*, p. 57.

¹¹⁶ Barrier, *Hollywood Cartoons*, p. 300.

to digress from the usual tonal idiom into something that was not necessarily pleasant or pretty to listen to. His musical choices in this score indicate the direction in which he would continue during the 1940s, and offers us a glimpse of the direction in which Bradley's music and Harman and Ising's cartoons might have developed if they had been given free rein and unlimited funds.

The Field Mouse concerns a family of mice (consisting of a typical MGM housewife-mother, a grandfather, and many children) who have to flee their cornfield home when a combine harvester arrives. In echoes of John Steinbeck's *The Grapes of Wrath*, Grandfather refuses to leave, and it is up to the protagonist mouse Hermann to save him from the harvester, inside which they both get caught. The moral of "Sow what you reap and reap what you sow", which is typically conveyed through song in the opening scene, carries the familiar message that diligence will be rewarded (see Figure 1.8). But it also carries overtones suggesting that family farming for subsistence is preferable to corporate farming for profit - do not reap what others sow. The story and moral must have resonated with audiences familiar with the tale of thousands of farming families being evicted in favour of mechanization. Overly intensive farming was also perceived to have caused the dust storms that contributed to the agricultural depression.¹¹⁷ The depiction of the combine harvester as representative of the inhuman treatment of people and the land by indifferent, unswayable corporate farms is key to the impact of the cartoon. What raises the cartoon above the usual innocuous, somewhat ineffective, anthropomorphized idyll is the abject horror of the machine that crushes everything indiscriminately. And the character of the combine harvester as an inexorable force is conveyed primarily through the music.

Starting from the moment Hermann spots the harvester's approach, we are given a full minute depicting the mice scurrying away in terror, hurriedly grabbing their belongings, before the machine is finally shown on screen. During that time, the approaching threat is portrayed by a rumbling noise, the visual vibration of objects on the screen, and musically by sets of repeating chords, on top of which is added an altered version of the mice's opening melody. The character of these chords and melody, while not atonal in the strictest sense of having no formal organization, are a jarring contrast to the stable major key of the opening.

¹¹⁷ Pare Lorentz, dir., *The Plow That Broke the Plains* (Resettlement Administration, 1936)

The refrain of the mice's song (Figure 1.8 mm. 21-24) forms the basis of the majority of the musical material in the score. It is always tempting to assign some sort of indexical meaning, on the lines of a leitmotif, to a film music theme. The melody in its unaltered state certainly calls the mice to mind - it is, after all, *their* song. However, it comprises the only unique material in the score - all subsequent themes are derived from it, including the melody heard when the harvester is finally shown in full view. If Bradley had intended to construct the score using leitmotifs, one would expect a less direct musical link between the music associated with the mice and the harvester respectively. It seems reasonable to suggest that the continued use of the melody, which appears in both its original form and various alterations, is more for the purpose of creating musical unity than for any semantic reason. There is, however, a correlation between the presence or absence of tonal stability and that of domestic security. After Hermann first glimpses the off-screen harvester, the tonal centre disappears and only returns when the action cuts away from the battle of Hermann and his Grandfather for survival to his mother and siblings, who have found refuge in the farmer's barn. When the action returns to the two mice in peril, the tonal centre is again obscured. It seems reasonable to suggest that Bradley's choice of using the same musical material in tonal and quasi-tonal forms was in order to highlight the contrasts in the harmonic textures.

The choices Bradley made in how to construct the atonal sections reflect a strong influence from the contemporary composers he so admired. In a memo to musicologist Ingolf Dahl, Bradley named Stravinsky as a favourite composer of his, along with Brahms, Hindemith and Bartok.¹¹⁸ According to MGM bassoonist Don Christlieb, Bradley also loved to attend the Monday Evening Concerts, a Los Angeles series founded in 1939 (and still running) to promote new music.¹¹⁹

It is likely Bradley was drawn to the various Modernist movements, such as the neo-classical, impressionist, expressionist and various others, because they worked with unusual orchestral forces. Since Bradley rarely had a large string section, he could not usually imitate traditional symphonic textures. The orchestra Bradley used for *The Field Mouse* had one of the largest string sections of any of his cartoon scores, but it still only consisted of six violins (divided into

¹¹⁸ Dahl, (p. 4). The memo is also reprinted in Goldmark, *Tunes for 'Toons*, p. 45.

¹¹⁹ Christlieb, p. 27.

four firsts and two seconds), two violas, two cellos and a double bass.¹²⁰ The various 'new' tone colours that were being explored by serious composers of the early twentieth century must have appealed strongly to someone attempting to achieve variety with a small ensemble. In *The Field Mouse*, Bradley combines two flutes, an oboe and two clarinets in octaves, which gives a similar effect to the various explorations of unison woodwind combinations then being explored by many concert composers. For example, Stravinsky employed a combination of piccolo clarinet and alto flute in octaves at the end of 'Spring Rounds' in *The Rite of Spring*.¹²¹

The influence of Modernist composition does not end at orchestration, however. Bradley also experiments with melodies and harmonies derived from non-diatonic scales. Figure 1.9 shows a version of the refrain from the mice's song that has been contorted into the whole-tone scale, played by the flutes. The lower instruments, shown on the bottom two staves, play chords built out of the same whole-tone scale in the first bar, and the opposing whole-tone scale in the second bar. In the middle, the piano plays chords based on what was once known widely as the 'Rimsky' scale, before gaining its modern theoretical designation as the 'octatonic' (or the diminished scale for jazz musicians). These various scales continue to be used throughout the scenes with the harvester, along with one final scale (Figure 1.13) in the trumpet solo when the machine is finally revealed. This scale is harder to define in conventional terms - it could be a mixture of octatonic based on A (in the rising contour of m. 245) and whole-tone, achieved by lowering the second degree to Bb (in the descending contour of m. 246). Or the two-measure phrase could be in A melodic minor, with a locrian inflection created by lowering the second and fifth degrees of the scale (to Bb and Eb respectively). It is somewhat intriguing that the scales in Stravinsky's *The Rite of Spring* are similarly ambiguous. While much recent scholarship has underlined the importance of the octatonic scale to *The Rite of Spring*, Dmitri Tymoczko, for one, has argued that many ostensibly 'octatonic' moments in the piece are actually created by the simultaneous employment of melodic minor and whole-tone scales.¹²² Of course, the sample obtainable from

¹²⁰ The majority of the surviving conductors score list three or four violins, and one each of viola, cello and double bass.

¹²¹ Igor Stravinsky, 'Spring Rounds', *The Rite of Spring*, rehearsal mark 56

¹²² Dmitri Tymoczko, 'Stravinsky and the Octatonic: A Reconsideration', *Music Theory Spectrum*, 24 (2002), 68–102. Pieter C. Van Den Toorn, who had always considered octatonicism to be central to *The Rite of Spring*, argued against Tymoczko's analysis. His argument and Tymoczko's rebuttal were published

Bradley's score is rather small, which leaves the question even less easy to answer than in the case of Stravinsky. But it does raise the possibility that Bradley may have used *The Rite of Spring* as a model, or that it at least had a more direct influence on *The Field Mouse* than other pieces.

A departure from the Romantic idiom of *The Little Mole* is also audible in aspects of rhythm and structure. One of the defining characteristics of the score for *The Field Mouse* is its liberal use of triplets that cross the main beats of the bar, a technique Bradley did not employ often - at least not for Harman and Ising. The trumpet solo of Figure 1.13 alternates between crotchet triplets and quavers, while Figure 1.12 shows these two contrasting rhythmic divisions employed simultaneously in different instrumental parts. Because of the restrictions of the bar sheet, Bradley was limited in the extent to which he could manipulate the metre. Unlike a concert composer, he could not change time signature whenever he wanted. He seems instead to have made a feature of the unrelenting beat by having a quasi-ostinato recurring figure of minims in the lower instruments (see Figure 1.9, Figure 1.10, Figure 1.12 and Figure 1.13). And he does manage to escape some of the metre's rigidity by accenting unusual beats. In Figure 1.10, he breaks up an otherwise metrically rigid set of repeated chords with higher notes in the trumpets that emphasise the weaker beats of the bar.

In the middle of the cartoon, Bradley employs a fragmented, cellular approach to composition that he would rarely utilize again. Stripping the mice's refrain down to the contour of the melody of a single measure (m. 21) he uses it at various levels of rhythmic diminution again and again throughout the atonal sections of the score, so that it is absent for only a handful of measures.

Compelling as they may seem in their own right, it is arguably more important to view Bradley's use of modernist methods in light of the contrast they provide to the tonally stable portions of the score. Those scenes that depict stable domesticity are orchestrated in what might be called a traditional symphonic texture. The melody, in the upper register, holds the primary interest and is supported by a conventional bass line and harmonies that do not conflict with or distract from it. Bradley's harmonic, rhythmic and structural choices during the more violent scenes seem to have been motivated by the contrast they provide rather than any higher artistic purpose. Bradley never utilizes one scale systematically - none of the excerpts exemplified below are restricted to a single whole-tone scale, for example. The sonority of the repeated piano chord

of Figure 1.13, which is created from perfect fourths, is not repeated anywhere else. And the scales in the second half of measures 210 and 211 (Figure 1.12

Figure 1.12) are so contrasting that all of the twelve pitch classes are present at once. Based on the pragmatic attitude Bradley later took to modernist melodic devices, it is not surprising that he did not restrict himself to one scale or another. His implementation of the twelve-tone technique, for example, was never strictly doctrinaire or even 'correct' (as I discuss in Chapter Two below). His priority was to depict the horror of the mice and the relentlessness of the harvester. The lack of tonality suggests the disorientation of the mice as they flee in terror, while the machine itself is depicted in the mechanical layering of metrical and cross-metrical repeated or oscillating chords.

Bradley's score for *The Field Mouse* is an intriguing glimpse of what the composer's work might have been like had Harman and Ising continued at MGM, and had supported Bradley's exploration of more modern idioms. There are in fact a few similarities between *The Field Mouse* and Bradley's later cartoons. The most striking of these is probably his use of tonality to portray a stable, peaceful environment, with explorations of less grounded harmonies indicating a more dangerous or violent atmosphere. In his work for Avery, Bradley tended to use what he called 'shock chords' - complex simultaneities difficult to categorize by harmonic function - to accompany moments of extreme emotion, while his twelve-tone phrases help portray uncanny or weird movements (see Chapter Two, below). His employment of newer harmonies within a score that is generally in a major key would also remain a characterizing aspect of his later work for both Avery and for Hanna and Barbera.

vi. Conclusion

Harman and Ising's cartoons can generally be characterized as whimsical narratives, fables or allegories, with cute characters. While the emotional content is important to the drama, more attention seems to be lavished on visual details. The personal and professional influence of Disney on both Harman and Ising tends to be emphasised in the existing cartoon histories. While this influence is undeniable, there are other factors, such as Hollywood's general response to the Great Depression, that made fanciful escapism a valid artistic direction and a commercially viable product. This tendency towards depicting ideals over realities seems to have been reflected in MGM's wider output, and

the fact that there does not seem to have been direct control from outside the cartoon department suggests a more oblique influence from wider culture.

Bradley's music for these cartoons is almost always in a major key. He often gives prominence to a recurring song, either pre-existing or original, which seems, in general terms, to represent the stable, peaceful environment of home. The visual beauty of the detailed animation is matched by the prettiness of the quasi-Romantic orchestrations Bradley most often employs. The almost constant major tonality is more limiting than the more expansive tonal palette Bradley would employ later in his career. He seems to have realized this, since his cartoons get progressively more harmonically adventurous through time. His score for *The Field Mouse* - Harman's penultimate cartoon - is indicative of the direction his music might have taken had the directors remained at MGM. There are noticeable similarities between *The Field Mouse* and Bradley's later work for Avery and Hanna and Barbera, but new and distinct emphasis on comedy in these later directors limits the possibility of direct comparison.

Another defining aspect of the cartoons was their reliance on the bar sheet, which engendered a close link between images and music. Bradley would have been unable to escape a measure of apparent synchronization because the images literally unfolded to a pre-established musical metre. It has generally been considered that deliberate coincidence of music and images, or 'Mickey-Mousing', is a simple technique easily dismissed. Such is the reputation of the procedure that scholars have tended to downplay Bradley's use of it. In fact, a study of the literature shows 'Mickey-Mousing' to refer to a wide range of practices and effects that, while they possibly limit the composer in one sense, nevertheless allow for nuanced and subtle accompanying of the onscreen movement.

The importance of close synchronization as a valid tool, rather than a necessary evil, is evident in the wide range of effects Bradley was able to achieve in his scores for Harman and Ising's cartoons. It is arguably even more important where comedic cartoons are concerned because it radically affects the comic timing, as I discuss further in Chapter Three.

vii. *Figures*

Figure 1.1 Bosko and Bruno

Bruno and Bosko, *Hey Hey Fever* (1935)Bosko, *Run Sheep, Run!* (1935)

Figure 1.2 Mickey and Pluto

Pluto and Mickey, *Playful Pluto* (1934)Figure 1.3 Comparison of songs from *Three Little Pigs* and *Run, Sheep, Run!*

Ab6 Eb9 Ab6

Who's a - fraid of the big bad wolf? Big bad wolf? Big bad wolf?

5 Eb9 Ab6

Who's a - fraid of the big bad wolf? (piccolo)

'Who's Afraid of the Big Bad Wolf?', by Frank Churchill and Ann Ronell, from the Disney cartoon *Three Little Pigs* (1933)

G D7
 Stay at home, stay at home, where the grass is good. Stay at home,
 don't you roam in that dark old wood. G

‘Stay at Home’, music Scott Bradley, words unknown, from the Harman-Ising cartoon *Run Sheep, Run!* (1934)¹²³

Figure 1.4: *The Little Mole*, theme for Sonny (transcribed from the cartoon, 1’28” approx.)

Strings Clarinet
 Oboe Strings

Figure 1.5: *The Little Mole*, ‘Ah, vous dirai-je, Maman’ juxtaposed with the theme for Sonny (transcribed from the cartoon, 4’06” approx.)

Strings

The similarity between the folk tune and Bradley’s theme is clearly discernible in the rhythm and the descending pitch contour of bars 1-2 compared with 5-6.

Figure 1.6: *The Little Mole*, theme for the fairy palace

¹²³ Hanna claimed to have written many of the lyrics for the Harman-Ising cartoons, although he never mentioned any specific titles. He never received credit for them. See Hanna and Ito, p. 22.

Figure 1.7: *The Little Mole 7'00"* approx. (transcribed from the cartoon)

Musical score for Figure 1.7. The top staff is labeled 'Flute' and contains a melodic line with eighth-note runs that ascend in pitch. The bottom staff is labeled 'Strings' and contains a bass line with sustained chords and some eighth-note accompaniment. The key signature has one flat (B-flat) and the time signature is 4/4.

The flute accompanies Sonny's bubbles as they gracefully ascend.

Figure 1.8: Song from *The Field Mouse*, mm. 13-36 (based on Part 2, pp. 3-6 of conductors' score (original is written in full without repeats))

Musical score for Figure 1.8, showing piano accompaniment and lyrics. The score is in 2/2 time and has a key signature of one flat (B-flat). Chord markings are placed above the staff. The lyrics are written below the notes.

13 Wheat makes our
14
15 farm-ers' store
16
17 Yes it's true it's
18 real-ly so, so

19 so
20
21 1. Wheat makes sour—
2. Can't make cheese from
3. Yes it's true it's
22 gar - bage though so
trees you know so
real - ly so, so

23 sow what you reap and
sow what you reap and
sow what you reap and
24 reap what you sow.
25 reap what you sow.
reap what you sow.
26 If you say, 'Well,

27 I don't give a darn!
28 You'll be hun - gry with an
29 emp - ty barn.

Chord markings: C, D, G, Dm, G, Dm, G7, C, Am7, Dm, A, Dm, G, C, C, E7, Am, D7, G, D7, Bdim D.S. al Fine

Figure 1.9: *The Field Mouse*, mm. 148-149 (based on conductors' score, Part 6, p. 7); the approach of the combine harvester

The musical score consists of three systems. The first system is for flutes, oboe, and clarinets, showing a whole-tone melody starting on B4 in measure 148 and ascending to G5 in measure 149. The second system is for piano, showing an octatonic accompaniment in the right hand and a bass line in the left hand. The third system is for bassoon, horns, violins, and viola in the upper staff, and trombones, cello, and double bass in the lower staff, both playing a whole-tone accompaniment that matches the bassoon line.

Flutes: whole-tone melody (one scale)

Piano: octatonic (one scale)

Bassoon etc: aug 5th (major 3rds, whole tone); transposed up minor 2nd

Trombones etc: whole-tone, alternating scales (match bassoon etc.)

Figure 1.10: *The Field Mouse*, mm. 180-183 (based on Part 6, p. 10 of conductors' score); the approach of the combine harvester

The musical score for *The Field Mouse* (mm. 180-183) is presented in two systems. Each system consists of three staves. The top staff is for Trumpets, the middle for Flutes, oboe, Clarinet, and Trombones, and the bottom for Strings, bassoon, horns, and piano. The key signature is one sharp (F#) and the time signature is 2/4. The score shows alternating scales for the trumpets and sustained notes for the flutes and oboe. The trombones play an augmented fifth interval, and the strings play whole-tone hexachords and alternating minor thirds.

Trumpets: whole-tone in major 2nds, alternating scales

Flutes: sustained E

Trombones: aug 5th (major 3rds, whole-tone) alternating minor 2nds

Strings etc: whole-tone hexachords, alternating minor 3rds (matching scale of trombones)

Figure 1.11: *The Field Mouse* mm. 188-195 (based on Part 6, pp. 12-14 of conductors' score); the approach of the combine harvester

Flutes, oboe, clarinets, piano

V1, V2, Vla Cello, bassoon

188 189 190

191 192 193

194 195

Flutes: whole-tone melody (one scale), melodic diminution

Others: whole-tone moving chromatically up major 3rd and back; whole tone mm. 192-193.

Figure 1.12: *The Field Mouse*, mm. 210-211 (based on Part 6, pp. 17-18 of conductors' score); the approach of the combine harvester

Flutes, oboe, clarinets

210 211

Trumpets

Piano and 2nd violin

Strings, brass, bassoon

Flutes etc: whole-tone melody (1st 4 notes), aug 5th (whole-tone) alternating at minor 2nd

Trumpets: whole tone triplet alternating with octatonic triplet

Piano & 2nd violin: aug 5th in 2nd of flutes' whole-tone scales

Strings etc.: whole-tone hexachords alternating minor 3rds

All 12 pitches heard in 2nd half of measure.

Figure 1.13: *The Field Mouse*, mm. 241-252 (based on Part 7, pp. 1-3 of conductors' score); the combine harvester is shown in full view

241 242 243 244

Piano and strings

Clarinet

Bassoon, Horns, Double Bass

245 Trumpet solo

246 247 3 248

249 250 3 251 3 252

Detailed description: The score consists of three systems. The first system (measures 245-248) shows a trumpet line with eighth-note triplets and a piano/strings accompaniment of block chords. The second system (measures 249-252) continues the trumpet line with more triplets and the piano/strings accompaniment. The piano/strings part uses a series of block chords, primarily triads and dyads, with some accidentals.

Trumpet: Octatonic (of A) + flattened B to give m. 246 a whole-tone inflection. Or melodic minor + locrian mode.

Piano and strings: Perfect fourths

Bassoon etc: Octatonic

Figure 1.14: Transcribed from *The Field Mouse*, approximately mm. 37-56; the mice harvesting wheat

piccolo celeste

37 38 39 40

strings pizz.

Detailed description: The score shows two systems. The first system (measures 37-40) features a piccolo celeste line with eighth-note patterns and a strings pizzicato accompaniment of block chords. A box labeled 'A' is placed above measure 37. The key signature is three sharps (F#, C#, G#) and the time signature is 2/2.

//

B

41 42 43

arco.

bassoon

bass drum

//

strings

44 45

//

C

chopping sound

chopping sound

violin

46 47 48 49 50 51 52

trumpet

trumpet and strings

bassoon and strings

//

D

53 54 55 56

violins

If you say, 'Well,

strings

double bass

- A. Three mice carry bushels of corn on their heads.**



- B. The mouse at the back falls on the floor (bass drum), knocking the others over.**



- C. One mouse husks the corn with a mallet (at each chopping sound in the top staff).**



- D. A chain of mice passes each grain along like a football.**



Figure 1.15: Thanatopsis, movement III

No m. numbers. From beginning of No. III-A

Cantabile crotchet=69 Non trattenuto

Andante non troppo

flutes, oboes, 1st violins

solo soprano

Yet not to thine e -

2nd violins

all violins

violas

cellos

double basses 8vb

7

ter - nal rest - ing place shalt thou re - tire shalt

11

thou re - tire a - lone

2 Chapter Two: Tex Avery and ‘Vulgar’, ‘Cartoon’, ‘Slapstick’ Modernism

i. Introduction: Ragging the Lion

When Tex Avery arrived at MGM studios in 1941, it was immediately obvious that he had a very different approach to that of Harman or Ising. The opening of Avery’s very first MGM cartoon, *Blitz Wolf*, is a clear demonstration of his overriding concern to create humour out of every possibility. Like all of MGM’s cartoons (and feature films), it begins with the logo of the famous roaring lion, but Avery recut and repeated the footage to the jazz standard ‘Tiger Rag’ so that the lion’s roar punctuates each syncopated trumpet riff. The overall effect is rather like a needle stuck on a vinyl record, as the music and image repeat together.

This irreverent joke is a good place to start in outlining how Avery’s cartoons differed from those of his predecessors. Where Harman and Ising were invested in creating what they deemed serious art, Avery was prepared to poke fun at anything and everything, including the cartoons themselves, and to use any artistic means at his disposal. The ‘lion rag’ joke is also typically self-contained, having no bearing on the subsequent narrative. Most of Avery’s humour was of this sort. The cartoons tend to be a hodgepodge of isolated gags or episodic interactions between protagonist and antagonist without any definite sense of narrative direction. In the literature on comedy, such isolated slapstick gags are often called ‘blackout’ gags after the vaudeville tradition of turning off the lights between gags. Avery sometimes literally copied this tradition by fading the screen to black straight after the gag. The lion rag also highlights Avery’s embracing of post-production techniques to add further dimensions to his comedy, something almost never exemplified in the work of Harman and Ising.

The implications of all these signature differences for the musical soundtrack are far-reaching. Avery’s preference for fragmented or episodic stories, where each blackout gag carries the same weight, meant that longer narrative arcs were less important in his cartoons. In the scores he wrote for Avery, Bradley reflected this shift away from large-scale form by composing more fragmented scores that also highlighted each gag in a more fragmentary way than he had done before. Furthermore, the blackout gags also leave little room for character development. Whereas Harman and Ising’s allegories

generally involve animals learning some sort of moral through their escapades, Avery's characters go through violent episodes perhaps a dozen times in every cartoon, without any discernible change to their expectations or motivations.

Put most simply, we might say that the primary interest of Avery's slapstick cartoons is not to be found in the characters, but rather in their antics as self-sufficient or isolated series of events. Again, the music for this new style reflects the prioritizing of the gag by being similarly composed of isolated fragments. The large-scale structural techniques that Bradley used in his scores for Harman and Ising, such as the leitmotifs identified in *The Little Mole* or the central songs of *The Discontented Canary*, *The Chinese Nightingale* and others, are generally absent in his work with Avery - indeed, the music presents little in the way of large-scale structuring interest. Instead, Bradley seems to have matched narrative events with musical fragments as they unfold. To be sure, certain of the characters who appeared in long-running series, such as Droopy, do have easily recognizable 'character' themes, but they are the exception. Even *Bad Luck Blackie*, for example, which has a long narrative arc of a kitten who finally defeats a troublesome bulldog, does not have leitmotifs for either the kitten or the dog. The only repeated melody in the cartoon, a snippet from the folk song 'Coming Through the Rye', is used to highlight the running gag of the cartoon: whenever the kitten's main ally, a black cat, walks in front of the bulldog, bad luck literally befalls him in the form of some heavy object dropping from above. The narrative interest, and the musical emphasis, is on the arrival of the cat and the impact of the increasingly improbable projectiles it presages. The struggle between the bulldog and the kitten is a mere excuse. Arguably, so are the characters of the bulldog and kitten - the cartoon would work just as well with any antagonistic pair.

Avery's technique when planning a cartoon, in particular his approach to the soundtrack, also had a significant effect on the music. The lion rag shows how Avery would sometimes conceive of a joke in terms of its sound as well as, or even before, its images. The sonic aspect of Avery's humour has often been overlooked by animation scholars, who have tended to focus on his interesting visual style of extreme exaggerations and occasionally abstract designs. One

noteworthy exception is Steven Allen's article 'Audio Avery', which offers extensive discussions of the same MGM cartoons I will investigate here.¹²⁴

As Allen asserts, sound often plays an integral role in Avery's cartoons:

Sound is utilized as a primary narrative feature to construct gags and on many occasions serves as an element in the plot to prompt the action or, even, is the premise upon which the cartoon is based.¹²⁵

While the same point could be made for a few occasions in the cartoons of Harman and Ising, Allen is right to emphasize a radical difference in the extent to which sound plays a role in the work of Avery. Indeed, he approached sound very differently. Characters are often defined as much by their silly voices and witty dialogue as their visual appearance. The music was often completed in post-production by, for example, speeding up or slowing down the music, which Harman and Ising almost never did.¹²⁶ But while his approach to sound as a whole shows it to be at the centre of his practice, on the other hand, the more precisely 'musical' aspect of the soundtrack was given less centrality than it was by the other directors.

Whereas Harman and Ising would begin with the bar sheet, and time all the action to the beat of the music yet to be composed, Avery preferred to begin with the exposure sheet, which informed the animators and camera operators how many frames a given movement should take. Only after that would Avery transfer the timings onto the bar sheet. Either method involves dictating the pace of the music, but in Avery's order of procedure the pace is not dictated by a musical metre. The difference in the final cartoon is readily apparent in the greater amount of tempo and time signature changes in the scores for Avery's cartoons than in those of Harman or Ising. Action that has been timed with reference only to the number of frames will not be as obviously tied to the musical metre. Of course, compromises are possible. For example, Stalling recalled composing some early cartoon scores directly from the exposure sheet.¹²⁷ Nevertheless, Bradley's scores for Avery's cartoons generally change

¹²⁴ Curtis, 'The Sound of the Early Warner Bros. Cartoons'; Steven Allen, 'Audio Avery: Sound in Tex Avery's MGM Cartoons', *Animation Journal*, 17 (2009), 7–22.

¹²⁵ Allen, (p. 7).

¹²⁶ Of course, the post-production mixing of sound must have been completed by someone else. It is very difficult to discover the names of the collaborators, such as editors and sound designers, who helped Avery achieve gags like the 'lion rag' in *Blitz Wolf*.

¹²⁷ Barrier, 'An Interview with Carl Stalling', (p. 44). It seems most likely that Bradley worked from the bar sheet, and not the exposure sheet. Given that all the surviving bar sheets are in Bradley's hand, and that none of the short scores are, it seems reasonable to suggest that Bradley only worked from the bar sheets, but impossible to prove given the sad loss of the bar sheets and exposure sheets themselves.

metre and tempo more frequently, with the scores split into more cues to accommodate different speeds. The markedly different challenges in this approach are clearly visible in the existing scores in USC's MGM archive. For example, the score for Ising's *Wild Honey, or, How to Get Along Without a Ration Book* (1942) is split into only seven cues, has only one slight tempo change (for a conga sequence), and no abrupt changes of metre. By comparison, Avery's *The Early Bird Dood It* (also 1942) has fifteen cues with at least fourteen tempo changes. While the prevailing metre is 2/4, there are no less than five single bars of 3/4. The extra beat in these bars no doubt accommodated the less strict metrical timing of the action. All this suggests that, while Avery may have had strong ideas about what music and sound effects he wanted, he nevertheless expected the music to follow the idiosyncrasies of the cartoon action rather than to pursue its own preconceived metrical tendencies.

ii. Avery and Bradley

Although it is clear from the cartoons themselves that Avery was very much invested in the potential of sound practices, very little other evidence survives to inform our understanding of Avery's attitude to music, nor of his and Bradley's working relationship. Avery never discussed music in the existing interviews, and Bradley only occasionally mentioned his work for Avery, presumably because Hanna and Barbera's Tom and Jerry were more famous characters than Avery's Droopy, Screwy Squirrel, or any of the motley crew of shorter-lived personalities. Intriguingly, the one reference Bradley did make to Avery actually suggests that the pair did not get on very well at a creative level:

Tex Avery didn't like my music. We disagreed a lot on what kind of music was appropriate for his cartoons. His ideas on music were so bad I had to put a stop to it. In every cartoon he wanted 'Home Sweet Home', all that corny music. I gave into him for a little while, but eventually I went down to see Quimby in his office and complained ... And Quimby backed me up.¹²⁸

It would be easy to overstate the importance of this particular tension between Avery and Bradley, which seems to hinge on the inclusion of pre-existing melodies in the score. I think it would be safe to say that Bradley and Avery came to some sort of understanding - for they certainly managed to maintain a working relationship for well over a decade. But the root of their argument is

¹²⁸ Scott Bradley, interview with Milton Gray, 11 March 1979. I have amalgamated this quote from Barrier, *Hollywood Cartoons*, p. 422, where it originally appeared, and Goldmark, *Tunes for 'Toons*, p. 74, where one of the elisions is expanded, but the quotation is shortened.

worth picking apart because it is potentially revealing about both Avery's and Bradley's understanding of what cartoon music ought to be, which in turn indicate their different conceptions about the cartoon medium itself.

For a start, it is worth noting that Avery disliked collaborating with anyone. He preferred to do everything himself. His long-term writing partner Heck Allen described him as 'the original one-man band', a somewhat ironic choice of metaphor given that musical composition seems to have been the one of the very few tasks Avery could not complete without assistance:

He laid the pictures out for the goddam background man; he did everything for the so-called character man, who draws the models of the character. Tex did it all, the [character] guy just cleaned up [Avery's drawings] after him. And that's really what I was doing, cleaning up after him. [...] If talent weren't available, hell, he'd go and do the voice himself.¹²⁹

Given that Avery turned his hand to so many of the cartoon's processes, it seems reasonable to suggest that Avery had a good grasp of what the finished cartoon was going to be from the earliest stages. It seems likely that he would also have had an idea of what music he wanted, and as a non-musician it is not surprising that he leant towards employing pre-existing melodies. If, during the planning stages, he had a particular musical piece in mind, one can easily imagine his reluctance to surrender control of the soundtrack to Bradley. His tight control over the layout, characters and voice acting suggests he had similar reservations about all the cartoon processes. Perhaps Bradley's assumption that Avery 'didn't like' his music was too personal an interpretation of a much more general aspect of his character.

On the other hand, Bradley's point of view is a little more difficult to understand. A literal reading of his own account suggests that Avery's earliest MGM cartoons are full of pre-existing melodies, and that after Bradley's petition to Quimby the scores became entirely original. But this does not really fit the evidence of the surviving cartoons. Not only does the number of pre-existing melodies remain more or less constant, but the scores Bradley wrote for other directors both before and during Avery's tenure do not have markedly fewer quotations. Goldmark paints the picture of a 'frustrated' Bradley who 'had to compromise in order to keep him [Avery] happy', notably by putting in some pre-existing melodies, but who insisted on composing as much original music as

¹²⁹ Heck Allen, interviewed in Joe Adamson, *Tex Avery: King of Cartoons* (New York: Da Capo, 1975), pp. 141-142.

possible.¹³⁰ But that seems to me too stark a picture. After a more considered reflection on the entire corpus, it seems more likely that Bradley's objections lay in having the musical choices dictated by someone else, rather than to the use of pre-existing music per se. Although there is no concrete evidence of how much pre-existing music Avery requested, it seems plausible that Avery may have suggested a pre-existing melody for every scene. As Goldmark points out, Avery's composer at Warner Bros. had been Carl Stalling, who had always tended to quote pre-existing melodies as a matter of expediency.¹³¹ Avery may well have begun by dictating a pre-existing melody for every musical cue, and expected the finished score to be entirely made of quotations. It is possible that Bradley was objecting to the sheer number of musical suggestions. If that is the case, Bradley must have found a compromise allowing him to compose original music before he spoke to Quimby, because even the earliest Avery cartoons to which he contributed have original music in them.

Bradley's objection to Avery's preference for pre-existing music might seem petty, given how prevalent its use in cartoons had been across the whole history of the medium. In order to approach a more complete understanding of Bradley's position, we should consider the historical context of Avery's arrival at MGM. By 1941, with Harman and Ising, Bradley had developed the cartoon score, and his own compositional style, into a form of expression that allowed him to experiment with instrumental textures and harmonic techniques to accompany dramatic scenes such as those in *The Field Mouse*. In *Dance of the Weed* he even managed to fulfil his wish to compose the score before any of the animation was started. When Harman and Ising left MGM, in 1939 and 1941 respectively, they took with them any non-comedic ambitions the studio had ever had. It must have been difficult enough for Bradley to give up his aspirations to turn the cartoon into a serious musical form, but to be asked to increase the amount of pre-existing music must also have seemed an even more retrograde step.

Goldmark describes Bradley's and Avery's differences of opinion as a missed opportunity:

This lack of understanding between the two men seems particularly tragic because of the nature of Avery's cartoons. They exude decadence: Avery always used the most exaggerated and outrageous solution he could devise, even when a gag might normally call for a simple reaction. [...] Such fantastic takes might have given Bradley

¹³⁰ Goldmark, *Tunes for 'Toons*, p. 74.

¹³¹ Goldmark, *Tunes for 'Toons*, p. 74.

numerous opportunities for experimentation. Indeed, both Avery and Bradley saw each cartoon as a chance to break the industry's conventions for stories and music, established by less adventurous animation studios.¹³²

It may be true that Bradley could have devised more unconventional accompaniments to Avery's cartoons if he and Avery had agreed more closely on a distinctive collaborative approach. But it is worth pointing out that, in fact, it was Avery's exaggerated visual style, and his character's physical distortions, that gave Bradley the most frequent and the most suggestive opportunities to introduce the atonal musical fragments that were to prove one of his most distinctive contributions to the medium. Although Harman's *The Field Mouse* had inspired Bradley to make some preliminary experiments in this direction, violent scenes such as this were rare in the gentle fables of Harman and Ising. By contrast, violent slapstick and a grotesque spectrum of horrified reaction both sit at the very heart of Avery's humour. In this trope, a character recoils in an exaggerated double-take (or, often, simple 'take') as they realise something dreadful. The intense shock is usually portrayed with some improbable physical distortion, and also aurally by a sudden loud chord. Bradley quickly realised that this would be an ideal place to match the visual extravagance with similar, ever more extreme sonorous and dissonant accompaniments.

One of the earliest, distinctly modernist instances of this area of exploration can be found in the decision accompany extreme takes with the Petrushka chord (two major triads played simultaneously an augmented fourth apart, e.g. C Major and F# Major). The earliest use I have been able to find by examining the scores appears in *Dumb-Hounded* (released in March 1943), although Bradley himself claimed that the first instance was in a Hanna and Barbera cartoon:

The first time I used [Stravinsky's] 'Petruschka Chord' to emphasize Jerry Mouse's horrified gasp, I had to convince the directors, but to my surprise they returned the next day and asked me what kind of chord it was. 'A shock-chord', I replied. Now, they regularly ask for 'shock chords'. That was the first step. Little by little, this [Modernist] music began to be used for small scenes, until this system became part of normal practice in most cartoons.¹³³

¹³² Goldmark, *Tunes for 'Toons*, p. 75.

¹³³ 'La prima volta che utilizzai l'"Accordo di Petruschka" con gli ottoni per mettere in evidenza un sospiro inorridito del piccolo Jerry Mouse, dovevo ancora convincere il regista, ma con mia grande sorpresa questi ritornò il giorno dopo la registrazione e mi chiese che genere di accordo fosse quello. "Un accordo-shock", risposi. Adesso, chiede regolarmente "accordi shock". Quello fu il primo passo. Poco a poco, piccole scene

I believe Bradley here is simply demonstrating his preference for talking about the *Tom and Jerry* cartoons. In fact, even within that canon, the earliest Petrushka chord actually preceded the one he mentions: it accompanied Tom's gasp when he realised Jerry had put a firecracker under his tail (*Yankee Doodle Mouse*, released in June 1943). It seems probable that Bradley simply felt that his audience were more likely to recognise a reference to Jerry Mouse than to 'Killer from *Dumb-hounded*', a character who did not reappear. Even if there is an earlier instance of the Petrushka chord which I have missed, it was arguably Avery's influence that established the horrified take as a staple joke at MGM which became so prevalent in his cartoons and those by Hanna and Barbera. Without Avery's style of humour, not to mention the violent slapstick that usually goes with it, Bradley would not have felt pushed beyond conventional gestures to find music to match the characters' exaggerated horror, and it is likely that modernist musical techniques would have been employed only in occasional cartoons.

The story of the working relationship between Bradley and Avery risks being oversimplified. It would be all too easy to cast Bradley as the musical aficionado whose struggles to further his art consistently came up against an intransigent, backward-thinking director, who, as a musically uneducated hack, was determined to stick to tried-and-tested methods. But Avery's instinct to use pre-existing melodies did not stem from a lack of imagination, or from an unwillingness to experiment. Avery and Bradley simply had fundamentally different views of what the cartoon was. Bradley seems to have seen each cartoon as an opportunity to tell a story, to make a discrete work of art that might make a lasting impression artistically. Essentially, this view was shared by Harman and Ising. But in order to understand the music for Avery's cartoons, one must appreciate that Avery saw the medium as an opportunity to mock anything and everything. It was an attitude he had acquired - possibly engendered - at Warner Bros., and one that Goldmark believes explains composer Stalling's continual use of pre-existing melodies:

The jokes and gags in the Warner Bros. cartoons constantly allude to people, places, events and ideas *outside* the context of the narrative world established in the short. Intertextuality was a trademark of the Warner Bros. cartoons, as they repeatedly referred to all aspects of

cominciarono ad esser musicate così, finché adesso questo sistema fa parte della prassi normale nella maggior parte dei disegni animati.' Scott Bradley, 'Evoluzione Della Musica Nei Disegni Animati', in *Musica E Film*, ed. by S. G. Biamonte (Rome: Edizione dell'Ateneo, 1959), pp. 217–221, (p. 220).

the real world, including themselves as cartoons. Cultural references can be found in each of the three main elements of a cartoon - visuals, dialogue, and music - [...] In this light, we can read Stalling's musical choices as his attempts to work with the cultural references the cartoons made.¹³⁴

Avery's cartoons constantly refer outwards to lampoon the culture that produced them. Using recognizable melodies is an expedient way to make these outwards gestures without having to interrupt the narrative.

Avery's cartoons also tend to poke fun at themselves reflexively. As they turn their comedic sights upon the absurdities of the surrounding culture, they acknowledge that they too are guilty of the same absurdities. For example, characters will pause in the middle of a more-or-less serious action, in order to poke fun at their own predicament. Avery knew that the music was capable of delivering this external commentary by quoting appropriate - or humorously inappropriate - melodies. Goldmark traces this practice back to the silent film accompanist indulging in 'film funning', where they would choose pieces whose titles appeared to mock the action.¹³⁵ Goldmark only examines the technique in the context of Stalling's scores, where it was far more prevalent, but one example is Avery's use of the popular tune 'How Dry I Am' to sarcastically introduce a character who is either overly sober or actually drunk.

Bradley and Avery's disagreement might have caused an impasse, although I believe Bradley, for his part, was well aware of the benefits of using pre-existing melodies. Why else would he have incorporated them in his cartoons for all the directors he worked with? But the developing technology actually allowed Avery and Bradley to compromise by ignoring each other to an extent. Recording technology had reached a point where the music was more easily edited after it had been performed, and there are several surviving scores that suggest Avery used post-production techniques to alter Bradley's music after the composer's work was entirely finished. If one closely compares the conductor's score for the initial recordings to the music in the finished cartoons, it becomes clear that the music has been edited after the recording process was complete. Of course, this may well have been the hand of an editor, a role which is extremely difficult to find any information about in the literature of animation studies. It is doubly difficult to discover who may have had creative input into

¹³⁴ Goldmark, *Tunes for 'Toons*, p. 43.

¹³⁵ Stalling was himself a film accompanist. See Goldmark, pp. 15-16.

the work of such as well-known 'auteur' as Avery. However, it is clear that at least some of these post-production edits were planned from the beginning. In *Dumb-hounded* (1942), the chase is accompanied by a sped-up recording of Rossini's *William Tell Overture*. A similar instance can be found towards the end of *Bad Luck Blackie*, where the music is once again sped up. These examples were almost undoubtedly conceived with Bradley's co-operation. But in a more prosaic instance, there is a scene in *The Early Bird Dood It!* (1942) where the worm character strolls along whistling 'Yankee Doodle' unaccompanied, even though the conductor's score shows an orchestral accompaniment. Bradley evidently expected an accompaniment to be required when he wrote the score.

Another example of Bradley's music being somewhat ignored can be found in *Out-Foxed* (1949). As Bradley recounted, he composed a four-voiced fugue based on 'The British Grenadiers' 'with the little tune "Jonny's Got a Nickel" serving merrily as the counter-subject.'¹³⁶ Goldmark infers that 'Bradley clearly enjoyed the thought of getting away with slipping a fugue into one of Avery's cartoons', but in fact the fugue is barely audible.¹³⁷ It took me a while to locate it within the finished cartoon, even with the score in front of me, because it is swamped by much louder dialogue.¹³⁸ Rather than Bradley 'getting away with' using a fugue, it seems plausible to suggest Avery was indifferent to a musical phrase that would not be heard clearly anyway.¹³⁹ But again it must be acknowledged that the final mix of the soundtracks to determine the comparative levels of the music and the dialogue may have been outside Avery's control.

There are also several instances of larger cuts, such as in *Car of Tomorrow* (1951) where part five of the fifteen-part score is cut by half and part eight is moved to be much earlier in the cartoon. It is often impossible to trace the reasoning behind the changes or the production processes that would have led to them. Presumably the gag accompanied by part eight was also moved, but there is no way to be certain without the absent bar sheets.

¹³⁶ Winge, (p. 136).

¹³⁷ Goldmark accurately states that 'Avery's degree of control over the recording levels in his cartoons is not known', but we can surmise from the amount of other post-production effects, and from the above-quoted account of Avery as a 'one-man-band', that Avery was in control of the editing process including the audio levels. See Goldmark, *Tunes for 'Toons*, p. 74.

¹³⁸ It occurs at approximately 7:30, when the fox is phoning all his friends.

¹³⁹ Goldmark, *Tunes for 'Toons*, p. 182, n. 68.

All the post-production changes outlined above are simple, and they arguably do not change the music to a great extent. But I could find no examples of similar differences between the orchestral scores and the cartoons for Harman, Ising or Hanna and Barbera, an absence which possibly suggests a fundamental difference in the attitude towards post-production methods in the work of Avery (and his editors).

Bradley's shock chords, and his other techniques directly borrowed from contemporary concert composers make up only a small proportion of his cartoon scores, but they have become somewhat of a major preoccupation of Bradley scholarship. Although 'Bradley scholarship' is perhaps too grand a term for what amounts to less than a dozen articles and chapters, there are enough discussions of the apparent influence of composers such as Schoenberg and Prokofiev to consider it a dominant concern. There is barely a single discussion of Bradley or his music that does not mention his fascination with the Petrushka chord or the twelve-tone technique. Bradley discussed his own use of modernist techniques on several occasions; it seems to have been a feature he was eager to demonstrate. Ingolf Dahl made what is probably the most detailed analysis of Bradley's twelve-tone moments, with examples from the scores demonstrating the deployment of the primary, inverted and retrograde rows.¹⁴⁰ These examples were reprinted in Prendergast's chapter on Bradley; Goldmark has also described the use of the twelve-tone technique in *Puttin' on the Dog* (dir. Hanna and Barbera, 1944).¹⁴¹ Most of the existing discussions are of Hanna and Barbera cartoons, perhaps because Bradley seems to have preferred referring to the famous Tom and Jerry. But Avery's cartoons, whose short-lived characters would not have been instantly recognisable to Bradley's readers, are perhaps even more pertinent to the discussion of modernism, because unlike Hanna and Barbera's work they have been compared to certain modernist tendencies in their own right.

Several studies comparing high-art modernism and popular culture have focused on the animated cartoon, and occasionally Avery's work in particular, as a specific area of interest. Amid Amidi, in his book *Cartoon Modern*, has compared some of the simplified character designs in later Avery cartoons, as well as the extreme distortion of characters during double-takes, to the

¹⁴⁰ Dahl.

¹⁴¹ Prendergast; Goldmark, *Tunes for 'Toons* (pp. 70-71).

modernist designs of artists such as Picasso, Miro and Klee.¹⁴² Meanwhile, J Hoberman considers Avery's deliberate interruption and subversion of standard narrative techniques to be somewhat Brechtian, as he discusses in his article 'Vulgar Modernism'.¹⁴³ More recently, Henry Jenkins has suggested Avery's cartoons would be an interesting object of study specifically because they appear to contain these very different aspects of modernism.¹⁴⁴ More broadly speaking, Norman Klein considers the machinery of the cartoon medium, and its reflection in the mechanical narrative of the chase, to be reminiscent of a modernist machine aesthetic.¹⁴⁵ William Solomon's 'Slapstick Modernism' also interrogates the machine aesthetic with reference to the stop-motion films of Charlie Bowers.¹⁴⁶ Other pertinent articles considering popular equivalents of high-art modernism include Dana Polan's interrogation of 'Brechtian cinema', which considers the Warner Bros. cartoon *Duck Amuck* (dir. Chuck Jones, 1953), and Terry Lindvall and Matthew Melton's discussion of the cartoon and intertextuality.¹⁴⁷ None of these articles considers music, but there seems to be an obvious crossover between Avery's relationship to modern art and Bradley's to modern composition. By extrapolating these ideas to consider music I hope to redefine the terms of the interaction between high-art modernism and its popular-cultural counterpart.

iii. Pseudo-Modern

To consider Bradley's use of modernist techniques and his relationship to the modernist context more broadly, it might be useful to consider his contemporary fellow composer Hanns Eisler. Eisler makes a particularly interesting point of comparison because he was a contemporaneous film composer who, like Bradley, incorporated new techniques such as the twelve-tone method into his scores. It

¹⁴² Amid Amidi, *Cartoon Modern: Style and Design in Fifties Animation* (San Francisco: Chronicle Books, 2006).

¹⁴³ J Hoberman, 'Vulgar Modernism', *Artforum*, 20.6 (February 1982), 71–76.

¹⁴⁴ Henry Jenkins, 'I Like to Sock Myself in the Face': Reconsidering 'Vulgar Modernism', in *Funny Pictures: Animation and Comedy in Studio-Era Hollywood*, ed. by Daniel Goldmark and Charlie Keil (London: University of California Press, 2011), pp. 153–174 (p. 157).

¹⁴⁵ Norman M Klein, *Seven Minutes: The Life and Death of the American Animated Cartoon* (London: Verso, 1993), see esp. p. 79.

¹⁴⁶ William Solomon, 'Slapstick Modernism: Charley Bowers and Industrial Modernity', *Modernist Cultures*, 2 (2006), 170–188.

¹⁴⁷ Dana Polan, 'A Brechtian Cinema? Towards a Politics of Self-Reflexive Film', in *Movies and Methods 2*, ed. by Bill Nichols (London: University of California Press, 1985), pp. 661–672; Terry Lindvall and Matthew Melton, 'Toward a Postmodern Animated Discourse: Bakhtin, Intertextuality and the Cartoon Carnival', *Animation Journal*, 3 (1994), 44–64.

is not known whether the two knew each other, but Bradley did defend Eisler's music in a letter to the editor of the *Hollywood Reporter* after an article insinuated his supposed Communist leanings had secured him work.¹⁴⁸ In their 1947 book *Composing for the Films*, Eisler and Theodor Adorno spent some time considering how 'new musical resources' ought to be incorporated into film soundtracks. While it is not possible to attribute each statement of the book accurately to either Eisler or Adorno, there is some clear resonance between the book's description of new film music and Bradley's cartoon scores.¹⁴⁹

As is well known, Adorno and Eisler proposed that what they deemed 'new music' could offer rich resources to remedy what they saw as the drawbacks of standard contemporary film scores, which they suggested were becoming little more than an assortment of clichéd 'bad habits'. However, they voiced the concern that, rather than being used to broaden the methods of film composition as a whole, modernist techniques would be subsumed into more traditional film scores:

[T]he ominous demand: modern, but not too much so, is heard in several quarters. Certain modern techniques, like the ostinato of the Stravinsky school, have begun to sneak in, and the abandonment of the routine threatens to give rise to a new pseudo-modern routine.¹⁵⁰

Considered with a judicious ear, we might well be tempted to say that Bradley's own initial forays into modernist composition in *The Field Mouse* took precisely this 'pseudo-modern' character. In fact, the quote could have been written with Bradley's work in mind, including his approach to twelve-tone music. Bradley describes how he tried all the usual clichés to find the right accompaniment for a scene in *Puttin' on the Dog* (dir. Hanna and Barbera, 1944):

Everything I tried seemed weak and common. Finally, I tried the twelve-tone scale, and *there it was!* This scene was repeated five times within the next fifty seconds, and I only had to use my scale[.]

Bradley only used 'the twelve-tone scale' for expediency, or an occasional novel effect - he never attempted to compose an entire twelve-tone score, nor does he seem to have been interested in Serialism.

¹⁴⁸ Scott Bradley, 'Open Forum', *Hollywood Reporter*, 28 October 1946, p. 10

¹⁴⁹ The difficulties surrounding authorship of *Composing for the Films* are infamous. The history of its publicized authorship are usefully summarized in James Parsons, 'The Exile's Intellectual Mission': Adorno and Eisler's *Composing for the Films*', *Telos*, 149 (2009), 52–68. A more general analysis of the resulting problems for film music studies can be found in Cook, see esp. pp. 64–65.

¹⁵⁰ Theodor Adorno and Hanns Eisler, *Composing for the Films*, rev edn. (New York; Oxford University Press, 1947; repr. London: Athelone, 1994), p. 44.

In fact, any serious investigation of the supposed 'modernist' inflections in Bradley's style should begin by acknowledging that his entire approach to the incorporation of these techniques was at basis an extremely conservative one. One particularly clear and relevant indication in this direction is the Bradley's article 'Cartoon Music of the Future', written in the year Avery arrived at MGM, which reveals his attitude towards cartoon composition in the broadest terms. In it he expressed his hopes for what the animated cartoon might become. Some of these concerns were purely technical - the click track 'will be abandoned in favour of free and flexible tempi', and cartoons will have 'no dialogue at all, for fantasy is best portrayed without the irritating presence of speaking voices.'¹⁵¹ But when it comes to the style of the music itself, although Bradley obviously intended his article to sound progressive, his language hints at a fairly conservative musical taste. If the title is pointedly reminiscent of Wagner, Bradley also expressed a desire for music 'composed in the symphonic-poem manner,' and referred to Shostakovich, Kodaly, Prokofiev or Debussy as composing the sort of music he had in mind.¹⁵² He wanted the new cartoons to be renamed 'Fantasies', and suggested that 'American Indian legends and the great wealth of Old World folk-lore would provide endless subject matter both to authors and composers.'¹⁵³ In short, he comes across as a typical late Romantic, rather than a modernist, happy to continue the symphonic tradition - indeed, another of Bradley's hopes is that 'the orchestra will, of course, be of symphonic size and quality', perhaps shading his aesthetic at most towards the realm of Satie or Varese.¹⁵⁴ The only mention Bradley makes of newer musical forms is that the new cartoons 'will require a new type of orchestral tone color, since sound effects will be contained in the orchestration, and the possibilities will be boundless.'¹⁵⁵ Bradley's musical future, as he saw it in 1941, was continuing and expanding upon the Romantic tradition by exploring new possibilities, rather than the deliberate discarding of the past that would become a central feature, if not a necessary condition, within several of the most influential framings of the programme of aesthetic modernism.

It seems fair to surmise that Bradley's music would have all too easily been swept under the same polemic against 'pseudo-modern' practices that

¹⁵¹ Bradley, 'Cartoon Music of the Future', p. 168.

¹⁵² Bradley, 'Cartoon Music of the Future', p. 167.

¹⁵³ Bradley, 'Cartoon Music of the Future', p. 168.

¹⁵⁴ Bradley, 'Cartoon Music of the Future', p. 168.

¹⁵⁵ Bradley, 'Cartoon Music of the Future', p. 168.

Adorno and Eisler had addressed to film music more widely. But it is worth considering this term in some detail, because it is clearly rooted in a normative, prejudicial conception of 'modernism' which may or may not remain adequate to embrace all the difference inflections of this elusive idea. The implication of 'pseudo-modern' is that the inclusion of modernist techniques in a film score is not enough to qualify it as truly modern. One must also embrace the artistic principles outlined in *Composing for the Films*, which was heavily influenced by Brecht's theories of theatre (Eisler having collaborated with Brecht on several occasions) and by Adorno's distinctive amalgam of the Hegelian and Marxian heritage.¹⁵⁶ 'Pseudo-modern' also implies that anything resembling modernist music must be a deliberate imitation of it; there is no room for coincidental resemblance. The fact that Bradley resorted to using a twelve-tone phrase in order to produce a particular sound, rather than attempting to challenge preconceptions about the cartoon score's structure or purpose, would have been ideologically suspect to Eisler and Adorno. Any score that merely sounds similar to modern music is not only a poor copy, but possibly even a threat to the 'progress' of film music as a modernist art.

The term 'pseudo-modern' is actually only one of a proliferating family of terms that have been coined in the attempt to encompass a wider field than that initially envisioned by Adorno, Eisler and the like. Hoberman coined the term 'vulgar modernism' to refer to subverted narrative norms in popular comedic art; 'cartoon modern' is the title of Amidi's book describing Hollywood animation that incorporated a geometric, stylized aesthetic. Solomon uses 'slapstick modernism' to describe comedies that playfully question machine culture and the commercialism of modern life. None of these studies has quite the air of defensiveness detectable in Adorno and Eisler's statement; *Composing for the Films* comes across as a modernist composer's attempt to distance himself from an attitude, then widespread among contemporary filmmakers, that the fashion for new sounds was more important than any artistic principles. By contrast, the articles I have found most relevant to this investigation are all latter-day analyses which, at least on the surface, are less invested in the attempt to preserve 'high' modernism from its lowly popular imitators. Nevertheless, the older articles in particular are rather protective of the artistic

¹⁵⁶ Generally speaking, the musical score should attempt to reveal the artifice of the film rather than obscuring it.

status they are bestowing upon these lowly entertainments. Their need to qualify the term 'modernism' in some way implies they are uneasy in attributing it to their respective subjects; Avery may be akin to Picasso, Míro or Klee, but he is not quite one of their exalted company. As Jenkins points out in his 2011 reappraisal of the earlier, 1982 article by Hoberman, the implication is that popular artworks are excluded from absolute modernism because they are not 'high' art:

To this day, his almost oxymoronic coupling of *vulgar* and *modernism* sparks controversy from those celebrating popular art and those defending high culture alike; we still have a long way to go before we resolve the vague discomfort that comes from applying formalist criticism to what we call popular culture more often than we speak of popular art.¹⁵⁷

The distinction between 'high' and 'low' seems to be becoming less strongly upheld as time goes on, at least within academia. And in fact, most of the articles I have mentioned are contributing further to the process of breaking down the distinction by emphasising the worthiness of popular art for critical consideration. There is no longer any greater need to justify the study of popular art than there is any work of 'high' art. Nevertheless, there seems to be some historical academic inheritance that implies a resemblance to modernism makes the cartoon more worthy of study than as a simple artefact of popular culture.

Of course, any similarity between apparently opposed genres of art is arguably worth examining; the very fact that 'high' and 'low' culture shared techniques at a time when the boundaries were being so strongly (if futilely) patrolled by some central figures is intriguing. But if two artistic fields are being subjected to a latter-day analysis, why should one of them be given priority as the context for the other? The titular couplings of vulgar, cartoon and slapstick with modern or modernism respectively imply a contextual hierarchy which is worth challenging.

Setting aside the problem of 'high' versus 'low', there is a simple question of whether modernism or popular culture should be viewed as the context for the other. At the risk of overgeneralizing the contributions these various scholars have made, there is a tendency between them to portray modernism as the primary context within which their respective popular subjects belong. Moments of direct address, abstract designs and satirical comments on

¹⁵⁷ Jenkins, (p. 156).

the status-quo of mechanised society are labelled 'modernist', but arguably the cartoon belongs to a tradition that already contained these elements.

Of all the discussions that have skirted the possible questions lying behind the relationship between the 'modern' and the 'popular', as of now the most interesting and suggestive I have found is in an unpublished Master's thesis by Andres Bermudez. Bermudez opens a rich original vein of research in order to argue that the cartoon belongs in the tradition of slapstick comedy, and that its origins can be traced back to the *Commedia dell'arte* and beyond.¹⁵⁸ It is a tradition that includes silent film comedy, vaudeville, *Punch and Judy*, and various street theatre and clowning practices. Although Bermudez does not address the question of modernism, it seems reasonable to argue that some of the resemblances to modernism are actually derived from older slapstick forms. The abstract design of Avery's characters has something in common with Punch's stylized face, or with a clown's makeup, while interruptions to the linear narrative, such as direct-address wisecracking, have been employed for comic effect for centuries. To label these techniques modernist risks disinheriting the cartoon from the comedic tradition to which it rightly belongs. It implies that Avery's relationship to Klee, or Bradley's to Schoenberg, was more important than their relationship to their own ongoing tradition of comic storytelling and scoring. Even the employment of unequivocally modern techniques, such as twelve-tone composition, might not separate the cartoons from the slapstick tradition, which has always flexibly and voraciously absorbed elements from its surrounding culture, whether this be deemed 'high' or 'low' or anything in between.

Bermudez identifies two central elements of the tradition: the 'batocchio' or slapstick itself - a device that produced a loud 'thwack' when tapped lightly onto a person or object - and 'lazzi' - self-contained comic routines that could be inserted into all kinds of narratives.

Comic routines or *lazzi* from the slapstick tradition arrived in America via the Italian circus, the English and French music halls, the burlesque, the fairgrounds, and the silent French film comedies of stuntmen (*cascadeurs*). During the final decades of the nineteenth century and the beginning of the twentieth century, while fast social, cultural and economic changes were happening in the

¹⁵⁸ Andres Alberto Lombana Bermudez, 'The "New" Sounds of the Slap-of-the-Stick: Termite Terrace (1937-1943) and the Slapstick Tradition' (unpublished master's thesis, Massachusetts Institute of Technology, 2008).

United States of America, the slapstick tradition encountered a fertile field to flourish in American vaudeville and silent cinema.¹⁵⁹

Crucially, while these routines often took recognizable formats and followed well-established scenarios, they were also always open to imaginative reinterpretation and even quite radical innovation.¹⁶⁰ In Bermudez's view, even the inclusion of modern aspects such as machinery can best be seen, against this deep background, as an innovation to a well-established 'slapstick tradition' rather than a wholly new departure from it.¹⁶¹ Indeed, the flexibility of the slapstick tradition had long allowed for changes of medium and apparatus:

When Arlechino hits the buttocks of Pulcinella with the "batocchio" the audience hear an amplified "THWACK!". When a comedian falls in a vaudeville act the percussionist in the orchestra plays a drum roll. When a brick hits the face of a silent film clown either the drummer or the organist plays the sound of a "crash box" full of nails, screws, and other metallic items. When Daffy hits Porky Pig's head with a mallet, the recorded sound of a hammer hitting an anvil emerges from the soundtrack.¹⁶²

The flexibility of the slapstick tradition as described by Bermudez would suggest the cartoon is capable of absorbing what have readily been deemed quintessentially 'modernist' elements without thereby losing its robust connection to prior slapstick techniques.

Calling Avery's cartoons or Bradley's music a 'kind of' modernism gives the latter a primacy it does not fully deserve. For argument's sake, one could instead propose that modernism continuously threw forth various 'kinds of' slapstick, albeit often rather serious ones. After all, certain techniques of high art modernism were knowingly borrowed from popular forms, rather than the other way around. If we were to reverse some of the articles' titular formulations, the results would be fairly apt descriptions of certain aspects of modernist art. Instead of 'vulgar modernism', we might suggest 'high art vulgarity', which calls to mind the terms Dadaists gave their own works, such as the 'anti-art' of Marcel Duchamps, whose 'readymade' works are as good an example of modernist borrowings from the wider cultural context as one could hope to find. Another example might be found in the 'political cartoon', a concept that is in some ways the reverse of 'cartoon modern': the humorous,

¹⁵⁹ Bermudez, p. 27.

¹⁶⁰ Bermudez, p. 26.

¹⁶¹ Bermudez, p. 32.

¹⁶² Bermudez, p. 45-46

perhaps facile, popular form of the caricature is put to a more serious satirical use. And instead of 'slapstick modernism', which suggests the addressing of certain high-art preoccupations within a popular entertainment, 'slapstick tragedy' might suggest the use of popular entertainment techniques, such as direct address, within more serious theatre. Although later than the era under discussion, 'Slapstick Tragedy' was the title used for the first production of two single-act Tennessee Williams plays.¹⁶³ To say that modernist art has borrowed from popular forms, and is best understood in the context of popular culture, is just as true if not truer than claiming the cartoon belongs in a modernist context.

Perhaps one of the difficulties underlying this discussion is that both the slapstick tradition and modernism are capable of being all-consuming; both modernist and slapstick works tend to be able to adopt elements from almost any other genre. The cartoon lies at an interesting nexus between the two, and its sound in particular is where the two confront each other. On the one hand, the basic noises of violent impacts, and on the other, Bradley's uses of undeniably modern compositional techniques.

The existing studies on the cartoon's relationship to modernist art can be broadly described as focusing on three broad aspects or preoccupations of modernism. I will address each of these concerns in turn in order to explore the context of the cartoon and its soundtrack, and to begin to delineate its relationship to popular culture and to modernism.

iv. Truth to Materials

In his book *Cartoon Modern*, Amidi defines the cartoon as 'a visual composition of lines and shapes drawn upon and seen in two dimensions'.¹⁶⁴ Animators of the 50s 'embraced' this by moving away from Disney's belief that 'characters should be "live, individual personalities - not just animated drawings"'.¹⁶⁵ In Amidi's view, this constituted a move away from animated designs that attempted to duplicate real-world visual detail and movement, towards a more geometric, simplified aesthetic. In this respect, Avery's modernism was 'never trailblazing', but he deserves acknowledgement 'for being one of the early adopters of the

¹⁶³The first production of *The Mutilated* and *The Gnadiges Fraulein*, directed by Alan Schneider at the Longacre Theatre, New York, February 1966.

¹⁶⁴ Amidi, p. 10.

¹⁶⁵ Amidi, p. 10 (no reference provided for the quotation).

contemporary look.' Amidi particularly singles out *A Symphony in Slang*, with its 'high-style design', but implies that, since 'Avery's main goal was to create cartoons that would get across gags,' his design collaborators were 'prevented [...] from doing a completely modern overhaul on the films.'¹⁶⁶

Amidi seems to consider representation to be a drawback in modernist cartoons, which is odd given his choice of subject. He could, for example, have chosen to focus on the work of Norman McLaren or Oskar Fischinger, but instead he focuses on the large studios which produced almost no entirely abstract short cartoons - that is, cartoons without characters or narrative - apart from some segments of Disney's *Fantasia*. As Kristin Thompson points out in a review of Amidi's book, he seems more interested in portraying the artists who he saw as struggling to break free of the established Disney aesthetics:

Amidi sees modernism's entry into American animation only secondarily as a matter of direct influences from the other arts. Instead, for him the impulse toward modernism is as a movement away from conventional Hollywood animation. Disney is seen as having during the 1930s and 1940s established realism as the norm, so anything stylized would count as modernism.¹⁶⁷

While it is true that direct influence of modernist art is important - particularly when discussing Bradley's work - Amidi's choice to contextualize animators primarily in terms of the established conventions of their medium is a useful one. Avery never mentioned influences from high art in interviews; what concerned him the most was innovating the narratives in order to keep the comedy fresh. In fact, the more streamlined, geometric designs that Amidi identifies as being part of the 'contemporary look' were in fact adopted by Avery to make the comedy faster. And faster comedy meant more laughs per cartoon:

You run the *old* stuff [...], and they would take thirty feet of film to do a gag. We found that we could cut it down and do it in eight feet and it would still read. [...] We gunned things up to the point where we could get twice as much stuff in a cartoon, getting from one situation right into another. A guy would no sooner get hit with an anvil than he takes one step over and falls in a well. Keep them going, and it builds up for your audience.¹⁶⁸

¹⁶⁶ Amidi, p. 56.

¹⁶⁷ Kristin Thompson, review of *Cartoon Modern: Style and Design in Fifties Animation*, by Amid Amidi, *Film History: An International Journal*, 22 (2010), 292–296, (p. 293).

¹⁶⁸ Adamson, p. 188.

The faster style was not just a question of fitting more jokes in per foot of film.

Speed was essential to Avery's style of humour:

I found out, if I wanted something to just barely be seen, five frames was all it needed. What would ruin it would be two or three seconds of film ... No, you'd have nothing. Say we had an anvil falling, we would bring it in perhaps four or five frames before the hit, that's all you need. [...] It makes that gag much funnier. If you saw this thing coming down, and you panned down with it, and it hits - uh uh.

With so many gags happening at such a speed, the essential information had to be conveyed efficiently to the audience. Avery took care to streamline the onscreen action so that the audience would not be distracted from a joke:

Any time that we wanted to punch something, we would never clutter it up, we would attempt to silhouette it, and you can't miss it. [...] We learned that early - if you've got two people working in a scene, slow one of them down until he's static if you want to build up to a laugh with the other one.¹⁶⁹

Even the design of individual shapes could contribute to the perceived speed of movement:

If you can read a line drawing of an anvil falling, in a pencil test, you know that you can read it in the film because it becomes a solid. We ran tests years ago on a bouncing ball in a line drawing, and it looks fast. Get a girl to paint it in ... the damn thing floats! Because you've got a solid, rather than a line movement. If you have a little line, that tends to go fast; but you fill it in, it slows up at least a third.¹⁷⁰

Given Avery's emphasis on improving existing techniques, it seems sensible to describe any copying from wider art practices as an attempt to innovate conventional methods: a broadening of the known territory, rather than an escape into the new. And even Bradley, who acknowledged the direct influence of modernist composers, used techniques in specific ways in order to supplement and strengthen existing methods, as his description of the first use of twelve-tone music shows.

While Amidi's emphasis on the cartoon as a developing tradition brings important qualification to the modern influences on Avery and Bradley, his position seems somewhat less fruitful when it comes to his narrow definition of the cartoon. Setting aside the fact that Amidi's definition leaves little room for sound, his definition of 'lines and shapes [...] seen in two dimensions' is not particularly fitting for the Hollywood cartoon. Since the cartoons in question are

¹⁶⁹ Adamson, pp. 178-179.

¹⁷⁰ Adamson, p. 189.

not constituted of purely abstract visuals then representation ought to be considered just as fundamental as lines or shapes. It would have been inconceivable for MGM to release a cartoon that was not a fairly conventional narrative. In fact, the only time they did release an abstract animation - by Fischinger - they refrained from titling it with the usual credit, 'An MGM Cartoon', instead giving it an entirely unique set of opening credits.¹⁷¹

An appropriate definition of the cartoon's materials is important because the foregrounding of material is a major preoccupation in some of the most influential formulations of a theory of modernist art. In his book on the American cartoon, cultural critic Norman Klein points out that, although 'modernism has come to be seen as very pluralistic', the attention paid to the art's surface is one predominant aspect across various media:

Dozens of modernisms have replaced the singular version. Many of these literally contradict each other. Nevertheless, one strategy seems to be cited most often as common to virtually all the artists defined now as modernist, including Tex Avery. The strategy can be found in hundreds of texts, across the disciplines, particularly in those written during the first half of the twentieth century - in modern poetry, modern dance, the twelve-tone technique in music, and so on, including painting. It was given various names and nuances, terms like facture (FAKTURA) or "truth to materials." The texture or surface of an art-form was supposed to be displayed nakedly, as a way of maintaining honesty and avoiding camouflage: naked surface before illusion or decoration; show the seams.¹⁷²

In Klein's view, Avery is modernist because his cartoons foreground their material nature, which he defines in a similar way to Amidi as moving drawings. Klein also considers the apparatus of cinema to be essential to the cartoon, and the foregrounding of the cinematic apparatus as Avery's response to machine culture in general. I will consider Avery's response to the machine as a separate issue, but there is a more basic question as to whether the essential 'materials' of the cartoon are in fact quite so easy to pin down. If we set aside all the aural components, even the visual material of the cartoon can in fact prove somewhat complicated to capture in a clear and consistent definition.

For one thing, we could surely - at least at many points of its history - speak of narrative as being one of the cartoon's basic materials, since the need to have a narrative was deeply entrenched by the time Avery was working at

¹⁷¹ Fischinger's 1937 animation was called *An Optical Poem*, which set abstract shapes to Liszt's *Hungarian Rhapsody No. 2*. It has never been considered part of MGM's general cartoon output; Scott Bradley was not involved. See Kristin Thompson, (p. 294).

¹⁷² Norman M Klein, p. 169.

MGM. Seeking a 'modernist' approach along these lines, we can quite easily imagine that an animator might therefore 'show the seams' in a purely narrative sense, even while the imagery itself remained comparatively 'conventional'. There are also various illusions concerning the cinematic apparatus to consider, such as the basic ones that the drawings are moving and capable of producing sounds. These mechanisms also form part of the cartoon's material, which can potentially be foregrounded. Avery recognised the comic potential of 'showing the seams' in each of these respects.

Curtis has identified a playfulness in Avery's cartoons towards the representational act that is at the heart of much of his comedy. He discusses an example from *Screwball Squirrel* (1944) where the eponymous Screwy, being chased by the dog Meathead, disappears through a hole into a tree-trunk and reappears through another hole above it. Reaching down, Screwy grabs the edge of the bottom hole and pulls it upwards out of the dog's way. Meathead slams into the tree.

How can there be one set of laws in which a hole is movable and another in which the tree is solid? Both can exist at the same time in animation, but what makes this a gag (and not science fiction) is that the laws *do not* exist at the same time. Instead, there is a momentary inversion of the two sets of laws, one pertaining to a fictional world of squirrels and dogs and trees, another pertaining to the nondiegetic world of animators. That is, there is one set of laws that apply to a "normal" fictional space (as in live action) and another that derives from the endless possibilities of drawn animation.¹⁷³

In other words, we could say that Avery generates humour by foregrounding animation's material nature as a cartoon depiction, as opposed to a lifelike depiction.

Klein makes a similar observation about how the animated material affects cartoon narratives with respect to much earlier cartoons. In the 1920s *Felix the Cat* cartoons, Klein identifies a characteristic he terms 'graphic narrative' which, 'while it makes allusion to story, its primary responsibility is to surface, rhythm and line':

The silent cartoon, like all animation, was supposed to defy perspective or plausibility. It managed this in a unique way. Felix uses his ears as scissors. He attaches his tail to his heart and plays it as a banjo. He climbs question marks up to the giant's castle[. ...] Felix is

¹⁷³ Scott Curtis, 'Tex Avery's Prison House of Animation, or Humor and Boredom in Studio Cartoons', in *Funny Pictures: Animation and Comedy in Studio-Era Hollywood*, ed. by Daniel Goldmark and Charlie Keil (Berkeley; London: University of California Press, 2011), pp. 211–227

inventive purely within the restraints (or freedom) of the flat screen. Every object he transforms is flat ink.¹⁷⁴

By invoking 'all animation', Klein implies that graphic narrative - which we could redefine as the foregrounding of the cartoon's material characteristics - is fundamental to all cartoons. But crucially, the vivid instances he invokes themselves also illustrate the degree to which graphic narrative depends not only on acknowledging that the cartoon is made of ink, but that it can simultaneously represent and depict. Felix's ears are ink, but they are also capable of behaving like ears and like scissors.

Hugh Kenner, in his biography of Warner Bros.' animator and director Chuck Jones, suggests that the conflict between representational and the graphic is not only central to cartoon comedy but essential for it to succeed. Discussing the torture of a bull by Bugs Bunny in *Bully for Bugs* (dir. Chuck Jones, 1953) he explains,

if we don't think of a bull the cartoon gets trivial, whereas thinking of a beast in pain expels us from the cartoon world. But that is not a beast, therefore not in pain; it's a wondrous arrangement of lines and color and movement. That's something true of all animation[.]¹⁷⁵

In this respect, the graphic material of the cartoon serves as a means of making the violence done to the bull acceptable. The representation of the bull as capable of experiencing discomfort and the material nature of the cartoon as being immune to it are both essential for the comedy. The same could be said for Meathead and the tree-trunk when they collide, but what Avery has done is foregrounded the material - the cartoon-ness - of the tree beyond the usual convention by having the hole moved by Screwy in a way incongruent with the representational rule.

Even though it might be tempting to define the cartoon's visual material simply as 'moving images', it is in fact a constant negotiation between the constraints of representation and the freedom of the drawings themselves. The cartoon presents us with a world that is simultaneously inhabited by ink and by objects and characters. Within this contradictory setting there is potential to foreground either the drawn surface of the cartoon, or to foreground the represented elements in surprising ways.

¹⁷⁴ Norman M Klein, p. 5.

¹⁷⁵ Hugh Kenner, *Chuck Jones: A Flurry of Drawings* (Berkeley; London: University of California Press, 1994), p. 33.

The aural material of the cartoon is deceptively complicated in a similar way to the images. It is, for example, tempting to categorize the cartoon's aural material into music, dialogue and sound effects. But, as several scholars have pointed out, in the cartoon these distinctions are often even more thoroughly and consistently blurred than they are in the *mise en bande* of the live-action feature film. Curtis examines one of the simplest examples of blurring music and sound effects:

For instance, when one character slaps another on the head and we hear a cymbal crash. This would normally be called a "sound effect" even though an instrument from the orchestra created the sound.¹⁷⁶

Curtis explains that the relationship between sound and music is further complicated by the fact that the cymbal bears no resemblance to the sound one would expect to hear when a punch is delivered to the head:

The relationship between the sound effect and its visual representation is not one of fidelity, but of analogy. Short, violent, and surprising, the pounding fist and the cymbal crash have certain matching, yet not necessary, components.¹⁷⁷

The distinction between music and sound effect, which would usually be determined by the coincidence of the latter with an onscreen movement and its resemblance to an appropriate real-world sound, is undermined by the prevalence of musical percussive moments like this. Allen provides possibly the least easily defined example of sound use in a moment from *Northwest Hounded Police* (1946), in which an escaped convict wolf is fleeing Droopy's pursuit:

When the wolf comes across a series of wooden signs that convey the futility of his flight, he does not read them aloud, but rather the music conveys their meaning. The phrases "Don't look now," "Use your noodle," "You're being followed," and "By Sgt. McPoodle" are played by a bow over strings [a solo violin], mimicking the phonic properties of the expressions and dullness of Droopy's voice.¹⁷⁸

The violin's mimicry of a voice that is not actually present in the scene is a perfect example of the pervasive difficulty encountered within any attempt to classify the aural material of the cartoon clearly as either music, dialogue or sound effect. Needless to say, trying to categorize the violin's utterance as diegetic or nondiegetic would be even more pointless.

¹⁷⁶ Curtis, 'The Sound of the Early Warner Bros. Cartoons', (p. 202).

¹⁷⁷ Curtis, 'The Sound of the Early Warner Bros. Cartoons', (p. 202).

¹⁷⁸ Allen, (p. 12). The phrases on billboards were a reference to the long-running advertising campaign for 'Burma Shave', which was lampooned in other cartoons of Avery and others. One other instance appears in *Sleepy-Time Tom* (dir. Hanna and Barbera, 1951).

With a view to the wider question about the slippery status of this medium amidst 'modernist' and 'popular' aesthetic modes, we might now consider whether the practice of blurring the various types of sound constitutes an act of 'showing the seams' in the manner Klein describes. The pairing of incongruous sound effects to images could conceivably be said to constitute a truth to materials - that is, an attempt to show the audience that the soundtrack and images are separate facets capable of working against each other at times. On the other hand, musical sound effects were so prevalent that they might arguably be considered a basic cartoon material. Bermudez, we might recall, traces the use of incongruous sound for bodily impacts back to the slapstick (batocchio) itself, and argues that the cartoon's use of humorous sound effects is a fairly straightforward innovation of the original 'THWACK!'.¹⁷⁹ Moreover, Bermudez claims that the sound effect and bodily impact, even if an unlikely pair, are nevertheless experienced as a unified audiovisual event by the audience. Invoking Chion's well-known term 'synchresis' - 'the spontaneous and irresistible weld produced between a particular auditory phenomenon and a visual phenomenon when they occur at the same time'¹⁸⁰ - he explains how the cartoons exploit this phenomenon for comic effect:

Even if the sounds of the slap-of-the-stick do not correspond to the reality of the visual event, when they are heard in sync with the visuals they create a new composite of aural and sight sensations. Sound adds value to the visual action, to the image. [...] The comic effect is achieved because the sound we hear when a body is being mocked or abused is not the sound that a real human or animal body would produce but a very amplified, percussive and material sound. The visual violence and grotesque movements become funnier because the bodies seem to be more concrete and more physical.¹⁸¹

In this view, we might even say that rational logic has little or nothing to do with the audience's experience and their understanding thereof. And this would seem to be a reasonable assertion given how irrational cartoons are generally - in a world where a pig talks, walks on his hind legs and stalks a duck, it is no greater leap to believe that his head might sound metallic when struck. The cartoon presents us with a world where any absurdity might have to be taken at face value in order to appreciate its narrative.

¹⁷⁹ Bermudez, pp. 45-46.

¹⁸⁰ Michel Chion, *Audio-Vision: Sound On Screen*, trans. by Claudia Gorbman (New York: Columbia University Press, 1994), p. 63. C.f. Bermudez, p. 46.

¹⁸¹ Bermudez, pp. 46-47.

Given how conventional the cartoon's absurd pairings of sound and image are, it is unlikely that any violent impacts would really serve to call the material basis of the audiovisual pairing into question with the acuity that we might expect from the most severe exponents of this particular line of 'modernist' aesthetics. Incongruous sound effects have for so long been normal for slapstick, it is hard to imagine any sound that would be strange enough to 'show the seams' between the visual and aural elements. But one could argue that some of the other sound practices in Avery's cartoons are unusual enough that they do undeniably foreground themselves as materials. Allen's example of the violin playing the billboard signs might be one such instance. Unlike Curtis's cymbal crash or Bermudez's anvil, the violin is not being used as a humorous substitution for a natural sound effect. A more conventional use of the violin might have been to accompany the movement of the camera from one sign to the next in some form of Mickey-Mousing, but the sounding out of words from the signs is more unusual - possibly unusual enough to draw attention to the artificial nature of the relationship between the music and the image.

Another possible candidate for cartoon music that 'shows the seams' might be found in the twelve-tone phrases Bradley incorporated, if only because they were so unconventional. Film music in general relies on the audience being familiar with certain idioms and their connotations within culture more widely.¹⁸² And the cartoon score, with its quotations of pre-existing songs, uses the audience's knowledge of music in an even more direct way. The twelve-tone phrases, by contrast, are extremely unlike any music most cartoon audiences might know from popular culture. To a 1940s audience, who would have been familiar with a large proportion of Bradley's quotations of both popular and classical melodies, the atonal idiom would have been largely unrecognisable.

Bradley's first foray into twelve-tone composition was for the Tom and Jerry cartoon *Puttin' on the Dog*. Although it was directed by Hanna and Barbera, and not by Avery, it is worth considering briefly because it sheds some light on how Bradley went about employing the technique, and what attracted him to it in the first place.

Bradley explained that he saw the twelve-tone scale as a solution to a problematic moment involving Jerry:

¹⁸²Anahid Kassabian has argued that this is film music's main way of producing meaning. See Anahid Kassabian, *Hearing Film: Tracking Identifications in Contemporary Hollywood Film Music* (New York; London: Routledge, 2001)

A little mouse was running around with the mask of a dog over his head - you saw only the little fellow's feet carrying this big head, and it looked very grotesque and funny, but I was stuck for a new way of describing the action musically, [...] Everything I tried seemed weak and common. Finally I tried the twelve-tone scale, and *there it was!* This scene was repeated five times within the next fifty seconds, and I had only to use my scale - played by the piccolo, oboe and bassoon in unison.

The fact that Bradley referred to his twelve-tone phrase as a 'scale' supports the notion that he saw it as a fairly abstract musical element. The term suggests nothing of how it might be implemented musically. It also suggests Bradley viewed it in similar terms to the other scales he used; he seems not to have considered any potential for a serialist structuring device.

While this same reference to a twelve-tone 'scale' might most readily be taken to imply only a shallow familiarity with the compositional method as developed by Schoenberg and his followers, the Scott Bradley archive at the University of Southern California contains clear evidence that Bradley's understanding of twelve-tone composition was, in fact, fairly comprehensive. It includes, for example, Bradley's own copy of Ernst Křenek's *Studies in Counterpoint: Based on the Twelve-Tone Technique*, in which he had made some simple analyses in pencil identifying the primary, retrograde and inverted rows.¹⁸³ We also find an unpublished manuscript entitled 'Sketches for Str. Quartet on 12 tone technique', sadly undated, which uses the same primary row as *Puttin' on the Dog*. In fact, Bradley seems to have been satisfied to reuse this one primary row as the basis for all his twelve-tone forays; in some cartoons he applied it very loosely, but I have found no instances of other twelve-tone rows in any cartoon. This would suggest that Bradley only had a passing interest in the technique.

Bradley also seems to have been unconcerned with how accurately he used the twelve-tone system. For example, throughout *Puttin' on the Dog* he ends the primary row with the notes G#, F# and G (see Figure 2.1) when it ought to end with G, C, F# - which are the correct pitches as stated in the first violin of the string quartet, (Figure 2.2) and in the retrograde row that accompanies Tom in some moments of *Puttin' on the Dog* (Figure 2.3). Bradley's mistake

¹⁸³ Ernst Křenek, *Studies in Counterpoint: Based on the Twelve-Tone System* (New York: Schirmer, 1940), California, University of Southern California Cinematic Arts Library, Scott Bradley Collection, Box 1:2

means there is no C in the row, and two G#s.¹⁸⁴ Figure 2.4 shows another instance, half a minute later, where he again abandons the row for the last three notes alone. His later cartoons use the row in an even freer manner, to the point where the phrases cannot really be called 'twelve-tone' at all - they have broken apart into free atonal fragments that nonetheless bear a strong resemblance to the original row. When the row appears in *Little Rural Riding Hood* (dir. Avery, 1949) it seems to be used as a point of departure for freer atonal material (see Figure 2.5). And in a quotation in Dahl's article, Bradley describes an example from *Jerry and the Lion* (dir. Hanna Barbera, 1950) as 'a freer play with similar chromatic material in the form of canonic imitation.'¹⁸⁵

It would seem, therefore, that Bradley treated twelve-tone music in the manner of a stylistic quotation, or even a general sonorous gesture. Perhaps if Schoenberg's music had been freely available to him, he might have simply quoted from an existing composition. When a 'row' appears, it is used in single fragments to match a particular onscreen movement, and in that respect is no different from many of Bradley's other quotations, whether from 'modernist' material or otherwise. But even so, the twelve-tone phrases remain exceptional to the extent that the audience would have been far less familiar with this idiom than with just about any other that crops up in these scores. Just as Wagner's 'Bridal Chorus' from *Tannhäuser*, or Rossini's overture to *William Tell*, would have had immediate connotations for the audience, the short twelve-tone phrase would have sounded unusual, uncanny, and perhaps even unsettling. It certainly would not have resembled anything for the majority of the people listening. Bradley deliberately constructed his twelve-tone row out of pitches and intervals that would not suggest a key centre, and the melodic contour is jagged and unpredictable. The instrumentation of mixed woodwinds playing in octaves (which Bradley almost exclusively favoured), or of two clarinets playing independent atonal lines, was also distinctly unlike the symphonic strings of the classical repertoire or the easy-going homophonic arrangements of popular standards. The rhythm, too, is generally based on a single repeated value; even the metre is not obviously made apparent by the articulation - often simply staccato throughout - or by the groupings of notes.

¹⁸⁴ This mistake has been copied verbatim into Goldmark's printed example of Bradley's twelve-tone scale. See Goldmark, *Tunes for 'Toons*, p. 71.

¹⁸⁵ Dahl, (p. 13).

In terms of 'showing the seams', the twelve-tone phrases are a possible example of foregrounding the material of the music. The audience might be encouraged to consider the act of accompanying a film by the very unusual nature of the atonal music. And yet Bradley's twelve-tone fragments do not behave quite as erratically as they might. The music may be atonal, perhaps devoid of obvious cultural connotations, but in many ways it still behaves in the standard manner of cartoon accompaniment. The rhythm tends to be synchronized to the visual movement; high-pitched instruments accompany small characters and low-pitched instruments accompany larger ones. The audiovisual relationship is not called into question, and the phrases are still recognisably musical. If the twelve-tone phrases do foreground their material nature, it is only in a fairly limited way.

One other major reason why Bradley's forays into atonality might not constitute a foregrounding of materials is the fact that they are reserved for a particular kind of image. Bradley seems to have used his twelve-tone phrase exclusively for moments where its strangeness would enhance any images that were 'grotesque', as he himself referred to the example in *Puttin' on the Dog*. Figure 2.6 shows a selection of the images Bradley accompanied with the phrase. In other words, Bradley used the unusual or unsettling sound of atonal music not to foreground the material of the sound itself, but simply to denote strangeness or oddness. His use of twelve-tone music is therefore even more like a quotation of a pre-existing piece. Rather than being a phrase without connotations, the twelve-tone phrases connote the unknown (or unknowable).

In some respects, Bradley's use of the modernist twelve-tone idiom is analogous to Avery's use of modernist design. Rather than indulging in the visual aesthetic for its own sake, Avery used it to expand the visual vocabulary of the cartoon to portray things that are not usually visible in the real world, such as extreme emotions. His most distorted images are those that portray a character's extreme shock, hunger, lust, pain, etc., as they comically exaggerate the physical appearance of someone undergoing mental or emotional torment. Bradley used the twelve-tone idiom to accompany visuals that were also not usually seen in the real world. The newness of the artistic and musical techniques for the audience highlights the oddness of what is being narrated, and helps to depict something that has no obvious visual or aural vocabulary.

A much more radical foregrounding of the aural material can be found in Avery's manipulation of recorded sound. Unlike Avery's visual designs, which seem to emphasise the narrative and aid audience comprehension, there are moments of audiovisual play that are conceivably disorientating to a degree that more or less insistently invites attunement to, and even re-evaluation of, the cartoon's most fundamental mechanisms. Allen has identified several examples of gags that highlight various mechanisms of the audiovisual construct. In *Screwball Squirrel*, there is a moment where Meathead is chasing Screwy to the strains of Rossini's *William Tell* overture when both music and images begin to repeat themselves as if stuck in a loop caused by some mechanical failure. Screwy breaks free of the repetition, walks over to a gramophone, and moves its needle, at which point both music and chase resume. In another instance of the same cartoon, Screwy is unexpectedly revealed to be playing a drum-roll heard as Meathead rolls down the hill. Allen describes these gestures as part of 'Avery's repertoire for disclosing the artifice of the cinema and challenging the limits of the medium'.¹⁸⁶ These unexpected gestures arguably do more to foreground the cartoon's materials than Bradley's twelve-tone phrases, since they are manipulating a more fundamental construct - the very continuity of temporality itself - than tonal musical syntax.

One other example is worth discussing if only because it was possibly the most unusual sound practice Avery ever used. Occurring only once, in the opening titles of *Happy-Go-Nutty* (1944), is a short rhythmical phrase made up of compiled sounds, not unlike *musique concrète*. Although the noises might be called stock cartoon sound effects, they do not accompany onscreen movement of any kind. One is not given the impression that anything in the cartoon has caused the sounds to occur, which would usually be an acceptable interpretation of these sorts of sounds. They instead come across as a quasi-musical utterance, since they articulate a discernible rhythm and their pitch has a certain contour. But they are separated from the preceding and following moments of the music by the bizarre instrumentation. Some of the sounds are recognisable instruments - a slide whistle and a set of cow bells, for example - while others are usually only used for 'effects', and so are difficult to describe here. One, which is possibly a guitar string being plucked at a high pitch, is commonly used for a single hair being plucked from a head; another is some sort of resonant

¹⁸⁶ Allen, (p. 16).

percussion instrument that I associate with water dropping into a pool. One particularly prominent noise is a 'cuckoo' played on a slide whistle, which almost certainly refers to Screwy's mental state.

It is likely this brief disintegration into noise was inspired by comedian Spike Jones, for whom Avery occasionally wrote jokes.¹⁸⁷ Jones's performances of classical pieces routinely employed various noisemakers to disrupt the normal musical unfolding. Although much of his humour is derived from poking fun at the seriousness of classical concert performances, there is also the more basic gag of music ceasing to be musical as it disintegrates into a series of absurd noises. Jones's performance of 'Cocktails for Two' pokes fun at the performance style of ballad crooners, but comedy is also derived from the ability of the unmusical noises to undermine any musical meaning.

The phrase from the titles of *Happy-Go Nutty* is most likely understood as denoting Screwy and his insanity. Its introduction along with his face leaves the audience in little doubt that the insanity of the cuckoo and its accompanying cacophony describe the squirrel. But in terms of its musical content, it is so far removed from the music that surrounds it that the audience's attention is likely to be drawn to the strangeness of the sounds. It is a momentary indulgence in sound-play, which foregrounds the material of the soundtrack. We might say they invite what Chion has called 'reduced listening' - a term borrowed from *musique concrète* composer and theorist Pierre Schaeffer:

[T]his is listening in a mode that intentionally and artificially ignores causes and meaning (and, I would add, effects) in order to concentrate on the sound in itself, in terms of its sensory properties including pitch, rhythm, texture, form, mass, and volume.¹⁸⁸

Since they have no obvious visual source or musical connotations, the sounds invite a consideration of their basic materials, and of the audiovisual mechanisms of the cartoon.

Klein and Amidi have each suggested that some of Avery's visual practices constitute a foregrounding of materials. It is possible to view Bradley's twelve-tone phrases in a similar light, since the sudden absence of the familiar tonal idiom might invite the audience to appreciate the soundtrack differently.

¹⁸⁷ Animator Frank Tashlin also wrote material for Jones. See Jordan R Young, *Spike Jones off the Record: The Man Who Murdered Music* (Boalsburg, Pennsylvania: BearManor Media, 2005), p. 214. C. f. Jenkins, (p. 154, 161-62).

¹⁸⁸ Michel Chion, *Film: A Sound Art*, trans. by Claudia Gorbman (New York: Columbia University Press, 2009), p. 487.

However, both Avery's extreme visual distortions and Bradley's atonal forays might better be described in terms of an escape from the conventional norms of representation in order to depict something unusual. In that sense, it is not so much a deliberate 'showing the seams' as an extension of the representational act into realms beyond the visual.

Avery's sound practices, on the other hand, might be viewed as a deliberate foregrounding of materials. The gags identified by Allen, and the phrase of compiled sounds at the beginning of *Happy Go Nutty*, are potentially more disorientating than explanatory, and might well highlight and provoke a re-evaluation of the audiovisual relationship.

v. *Response to Modern Life and the Machine*

[If the question of a 'showing of the seams' or a 'foregrounding of materials' might both be described as the most characteristic 'internalist' foundations for a diagnosis of aesthetic modernism, one of the most prominent 'externalist', or cultural-historical points of emphasis has long been the question of artistic response to machines - and in particular, to their increasing presence in and influence over modern existence.

Besides the foregrounding of materials, another major preoccupation of modernism was formulating responses to machines, their increasing presence in everyday life, and their influence on society. Even a superficial familiarity might readily deem this the aspect of modernism that is most naturally applicable to Avery's cartoons, since some of them come very close to dealing directly with these concerns. For example, *The House of Tomorrow* (1949), *Car of Tomorrow*, *T. V. of Tomorrow* (1953) and *Farm of Tomorrow* (1954) all create comedy from imagining an overly-mechanised future. But Avery's direct responses to machine culture were never as straightforward as Harman's in *The Field Mouse*, which simplistically cast the machine as a deadly intrusion into an otherwise idyllic pre-industrial society. Avery never seemed interested in making a serious point about the technology he occasionally mocked. But the point becomes somewhat more complex once we note that several scholars have argued that the cartoon itself constitutes a response to the machine, for various different reasons. The origins of the cartoon's production can be viewed as an interesting collaboration between the free artistic process of drawing and the rigid mechanics of animating for the screen. Similarly, the cartoon's soundtrack can be viewed as a

site of interaction between artistic freedom and the mechanical necessities of synchronization such as the click track. By drawing some of these together, we can see Avery's cartoons as sitting in a complicated and nuanced position in relation to machine culture.

Klein has suggested that the cartoon emphasises its own status as a machine, by reflecting its inherent technology. With another suggestive and important opening back to deep historical precedent, he compares the cartoon to the *machina versatilis* of classical Italian theatre - an elaborate machine capable of moving sets and actors. Although the cartoon characters' actions may seem anarchical, they come together in a planned mayhem where every action is pre-determined:

All the antics aside, theirs is an utterly deterministic world - *machina versatilis*. The more properly out of place all the cartoon elements are, the more often the medium intervenes deterministically.¹⁸⁹

The self-reflexive implications of a mechanical artform such as the cartoon foregrounding its mechanical nature are discussed below, but what is important for the present discussion is the potential for the cartoon to turn its characters' actions into a machine. In Klein's view, the cartoon's relationship to the machine is an unavoidably subservient one. Despite any satire the cartoon might attempt to construct against the machine, it 'pays homage' to it because it 'cannot entirely disown its master [...] the motion-picture machine';¹⁹⁰ inevitably, 'the cartoon is an all-encompassing hymn to the machine world.'¹⁹¹

Klein's stance, though highly suggestive, offers a few points of potentially fruitful interrogation. For one thing, the cartoon may be a machine, but it is nonetheless capable of expressing anti-machine sentiments. The cartoon is not alone in being intrinsically dependent on the machine. Any mechanised art, be it film, architecture, printing or computer graphics, can be subject to the same argument. But the cartoon also undermines machine culture in several ways. One of its most important tools in doing so is music. Music has the potential to offer a counterpoint to the cartoon's mechanical nature because, although music has incorporated technology throughout its history, it does not depend upon it for its existence. The human voice is capable of creating music without any recourse to the machine.

¹⁸⁹ Norman M Klein, p. 79.

¹⁹⁰ Norman M Klein, p. 75.

¹⁹¹ Norman M Klein, p. 78.

Nevertheless, a particularly pertinent observation has been made about 20th century music, and in particular big band swing. Swing and jazz are more closely associated with the cartoons from the Fleischer studio, and Bradley certainly never employed jazz to the same extent.¹⁹² But Bradley did take advantage of having three saxophonists in his ensemble, and many of the popular tunes that might not quite fall into the category of jazz are based on an underlying swing metre.¹⁹³ Joel Dinerstein, in his study of African American culture, argues that big-band swing offers an expression of one of the chief anxieties associated with discussions of machine culture: of how human beings can find space for individual freedom in a world increasingly dominated by machines and their accompanying inflexible aesthetic.

Dinerstein describes big-band swing as expressing these concerns partly by incorporating machine rhythms wholesale into the music:

The previously unappreciated qualities of aesthetic beauty which machines brought into industrial society were speed, precision, flow, power, and continuity. All are hallmarks of West African dance and drumming, and all have become trademarks of American vernacular music. Thus the success of big-band swing and dance was due to the *machine aesthetics* inside the music: again, *power, drive, precision, repetition, reproducibility, smoothness*.¹⁹⁴

According to Dinerstein, These characteristics make themselves felt through the ubiquity of the metre, its prominent aural positioning courtesy of the drums, and the precise coordination of the players in the ensemble. It would be possible to argue that, given the extent to which it assimilated the rhythms of the machine, big-band swing was every bit as acceptant of machine culture as those artforms intrinsically reliant on it. However, Dinerstein continues his description by explaining that big-band swing did manage to negotiate a place for individual freedom from that machine in the form of improvisation:

One on one, you could not beat the machine, [... b]ut machines cannot improvise or provide aesthetic surprise[...] Big-band swing was fast, precise, fluid, efficient - *and* displayed a larger message of fellowship while providing a dialogue with machine aesthetics. In big-band swing the soloist interacted with the section and the sections

¹⁹² For a study of jazz and swing culture in cartoons more broadly, see chapter 3 of Goldmark, *Tunes for 'Toons*, pp. 77-106.

¹⁹³ The saxophonists 'Mack', 'Pee-Wee', and 'Chuck', who doubled on clarinets, seem to have been a semi-permanent fixture in the ensemble, since many of the orchestral scores (including *Blitz Wolf*, *Puss 'n' Toots*, and *Puttin' on the Dog*) mention them by name.

¹⁹⁴ Joel Dinerstein, *Swinging the Machine: Modernity, Technology and African American Culture between the World Wars* (Amherst, MA: University of Massachusetts Press, 2003), p. 19. Emphasis is in original.

argued with one another, all of it chugging along over the rhythm section's engine.¹⁹⁵

Personal freedom against the machine and its society made itself felt whenever an individual performance transcended those machine aesthetic qualities of precision and repetition.

Bradley's scores for Avery's cartoons, which often quoted big-band swing, can be viewed as expressing the same dialogue between personal freedom and machine culture, but in possibly an even more emphasised way. The use of the click track allows the metre to be even more pedantic and the players to be even closer in sync, while the mechanical coordination with onscreen movements in any moments of Mickey Mousing might add an extra dimension to the rigidity. Arguably, the cartoon score demonstrates both a more pedantic machinelike structure, with the timing sheet and click track dictating the form and performance of the music, and more personal freedom in those moments where the tonality, metre and timbre break down altogether.

Examination of Bradley's orchestral scores shows that moments of musical freedom were often created by exploiting moments where the use of a click track would not be necessary. When the score was being prepared, any fermata or other moments that would be best performed with a looser metre were identified and, where possible, the score and the corresponding animation were broken into cues at this point. Pauses or sustained notes of any kind were placed at the end of a cue so that they could be held for as long as necessary. This process allowed the click track to be used again, straight after the sustained note, at the beginning of the following cue. Different cues could also be performed at different tempos. So the sustained note at the end of a cue is literally a moment where mechanical rigidity has been relaxed in favour of a freer, perhaps more personal, mode of expression. Although the music is still mechanically tied to the action as it unfolds, together the images and music are temporarily free from the rigid metre imposed by the click track.

Amidi has drawn an interesting comparison between jazz improvisation and visual cartoon distortion:

Like a jazz musician who improvises a melody to the point of abstraction, but ultimately returns to a recognizable tune, the best animators of the 1950s [...] distorted characters frame by frame in

¹⁹⁵ Dinerstein, pp. 180-181.

creative, unexpected ways before returning the character design to its original state.¹⁹⁶

Investigation of several relevant instances discovers many points where moments of visual distortion are synchronized to less mechanical musical moments. This is hardly a surprising coincidence, since one expects cartoon music and images to match each other gesture for gesture. But it does show that the confrontation between the mechanical and individual elements of the cartoon is considered on both levels. One particular instance of this is the moments portraying shock, in which physical distortion coincides with musical abandonment of metre, rhythm and tonality.

The shock chord - Bradley's aural accompaniment to a character's bodily distortions - could be interpreted as the expression of the individual's complete disregard for the machine in moments of pure horror.¹⁹⁷ The cartoon's narrative and its accompanying soundtrack halt while the character and the musicians indulge in an expressive breaking of the machine aesthetic. These moments of shock, conveyed both aurally and visually by the distortion of form and the temporary halting of the ongoing narrative, might be seen as a way of projecting the fictive character's disregard for - or even ability to escape from - the control of the machine. In these small but relatively frequent moments, the most mechanistic elements of the cartoon are forgotten in order to indulge the unruly. Paradoxically, these same moments are often those that foreground the character's cartoon nature, its graphic material, rather than any claim the character might have to autonomous life via representation of that autonomy. In other words, at this extreme point in the relationship between the drawn and the represented, the cartoon character does not appear to break from the machine by creating a realistic or lifelike impression, but by indulging in its status as a cartoon copy.

¹⁹⁶ Amidi, p. 11.

¹⁹⁷ It is interesting that the story of *Petrushka* itself is about another struggle between mechanised life (puppetry) and autonomy. Bradley was no doubt attracted to Stravinsky's bitonality first and foremost, and the intrinsic sound of the simultaneous sounding of C major and F# major chords, which he said 'may be considered as important as Wagner's chromatic harmonizations in *Die Walküre*.' ('...che può esser considerata sullo stesso piano della armonizzazione della scala cromatica che Wagner introdusse ne *La Valchiria*.') But Bradley was interested in the story also: 'I never understood why this fascinating score, which is so richly imaginative, has never been made into a cartoon; my greatest wish would undoubtedly be to collaborate on *Petrushka* as my last work in this medium.' ('Non ho mai capito perché questa affascinante partitura, ricca di una così perfetta fantasia, non sia mai stata utilizzata per ricavarne un disegno animato; il mio più grande desiderio sarebbe indubbiamente di poter collaborare alla realizzazione di *Petrushka*, come ultimo mio lavoro in questo mezzo espressivo.') See Bradley, 'Evoluzione Della Musica Nei Disegni Animati', p. 219.

Curtis's study of Avery's MGM work brings further nuance to the dialogue between cartoon and machine. Curtis frames his analysis of Avery's comedy with reference to Henri Bergson's theory that 'what's funny always amounts to the intrusion of, say, the mechanical into life - what makes us laugh, in other words, is the recognition of, say, mechanical rigidity or thingness in humans'.¹⁹⁸ Like Klein, Curtis compares the entire cartoon to a machine, but focuses on the comedy rather than the filmic apparatus. He identifies Avery's cartoons as being based on repetition - a mechanical trait - with two common patterns being 'a comic structure that revolves around a repeated gag with variations and a comic structure that creates different kinds of gags out of a single setting or situation.'¹⁹⁹

One can see how Curtis's use of Bergson might map easily onto the convergence of individual and machine that I have outlined above: the cartoon character finds himself within a scenario that mechanically repeats itself, and his increasingly frustrated reaction is an expression of his individuality, just like the jazz improviser in the big-band setting. But this would be a misreading of Curtis and, he insists, of Bergson. Despite the fact that Bergson situates the mechanical in 'rigidity or inelasticity' and that 'cartoon characters are nothing if not elastic', Curtis maintains that a better reading of the cartoon in Bergson's terms would consider cartoon elasticity to be an inorganic property:²⁰⁰

Even though cartoon characters stretch, the source of amusement comes from the imposition of "mechanical", "rigid" or "objectlike" qualities - which includes, in this case, the ability to stretch - onto human or anthropomorphic characters.²⁰¹

Curtis's conclusion is perfectly logical; when cartoon characters are shown in their most graphic form, furthest removed from strictly lifelike representation, they are at their most mechanical. But it is difficult to reconcile this description with Amidi's suggestion above that the cartoon character's most contorted appearances equate to improvisational music, and therefore represent the individual's place in an otherwise mechanised order. Of course the cartoon character is a mechanical construct, and its improbable ability to stretch itself seems to emphasise its non-organic nature. But it is an oversimplification to simply label this ability 'mechanical'. Rather, the character's stretchiness is an

¹⁹⁸ Curtis, 'Tex Avery's Prison House', (p. 212).

¹⁹⁹ Curtis, 'Tex Avery's Prison House', (p. 215).

²⁰⁰ Curtis, 'Tex Avery's Prison House', (p. 217).

²⁰¹ Curtis, 'Tex Avery's Prison House', (p. 217).

open-ended interrogation of the distinction between organic and machine possibilities. Despite claiming that the character's stretchiness is machinelike, Curtis's discussion of *Screwball Squirrel* implies a more complicated examination of the relationship between the machine and the individual.

In *Screwball Squirrel*, the comedy is derived mainly from what Curtis calls 'metagags' - gags which refer to the cartoon's mechanism, or which are specific to the cartoon medium.²⁰² Screwy torments the dog Meathead by making use of effects that ought to be impossible in the represented world - such as moving the hole in the tree and causing Meathead to run into the trunk. He also lifts the corner of the background to see what scene is coming next, removes Meathead's face with flypaper (it is, after all, made of ink), and hops on a train that has appeared within a hollow tree. And, as already noted, at one point the characters freeze, mid-chase, as if arrested by some mechanical glitch of the filmic apparatus.

Curtis describes these gags as a 'momentary inversion of the two sets of laws, one pertaining to a fictional world of squirrels and dogs and trees, another pertaining to the nondiegetic world of animators.'²⁰³ Crucially, 'this inversion implies their equivalence and reversibility; the role of cartoon character and that of animator can be inverted at any moment.'²⁰⁴ To suggest that Screwy's metagags are made possible by the animator aligns his ability to transcend his world's natural laws with the human, individual, non-mechanical agency of the animator.

A cartoon character's distortion can thus be seen either (or both) as an inorganic, machinelike quality, and the expression of individual freedom against the surrounding machine of the cartoon. And to push the point further, we might even suggest that by refusing to uphold a simple binary between organic and machine, the cartoon playfully interrogates, by its very elusiveness within its only notionally stable purview, the implied tyranny of machine culture. In some moments, it seems to be Screwy's mastery of his own machinelike abilities that allow him to escape the machine. If Screwy is a machine, he is one that is capable of evolving and adapting, one that threatens to transcend its mechanical bounds by being unpredictable, nonrepeating, continuously changing and unique.

²⁰² Curtis, 'Tex Avery's Prison House', p. 215.

²⁰³ Curtis, 'Tex Avery's Prison House', p. 220.

²⁰⁴ Curtis, 'Tex Avery's Prison House', p. 220.

Returning to the analogy of big-band swing, my view of *Screwball Squirrel* suggests that the solo improviser, while clinging to his humanity within the machine setting of the ensemble, might also be described as embracing the mechanical in order to take control and even evolve the machine around him. That may be difficult to argue for the live soloist in a jazz performance, who relies upon spontaneity and, often, responsiveness to the perceived mood of the audience. But it would at least seem to hold true for cartoon music, where even the apparently improvised melodies of a performer had to be planned mechanically and meticulously.

In light of the slippery ideas about freedom and the machine discussed above, we might now be able to sketch a preliminary transposition of these questions from the realm of cartoon squirrels and trees to the composer himself, working with a (contingently) modernist means to bring a further expressive dimension to the images. One could argue that Bradley's individual dissonant moments were fairly mechanical. Bradley may, in his later scores, have reached a point where he could compose atonal moments fairly 'freely', but at first he relied upon the highly organized twelve-tone system, or the equally rigidly defined dissonance of the Petrushka chord, to aid him. In effect, he replaced the mechanics of a tonal hierarchy for the even more mechanical twelve-tone system, until the dissonances gradually reshaped the tonal landscape in much the same way Screwy played with the cartoon around him. And if Bradley's avant-garde compositional techniques were somewhat mechanical, the quasi *musique concrète* moment during the credits of *Happy Go Nutty* is even more mechanical. Once again, a certain freedom from the mechanically predictable opening credits and orchestral theme is achieved through an even more mechanical process. As a response to machine culture, it is thus tempting to say - at the risk of falling again into Adornian prescriptiveness - that Avery's cartoons hold a richly ambiguous position that attains, at times, to something like a fully fledged dialectic. This art, at once 'high' and 'low', 'modern' and 'popular', can be read as somewhat subversively questioning the very distinction between the machine and the individual, proposing a flexible overlap where the mechanical and the human might at least seem to exchange places.

Despite my insistence that the cartoon is not an 'all-encompassing hymn to the machine world', there is no escaping Klein's observation that the cartoon as a

whole, and the characters within it, are intimately related to machines.²⁰⁵ But there is another argument to be made against Klein's assertion by examining what kind of machines are being portrayed. This seems particularly pertinent to Avery's cartoons, given how much experimentation there was in form - both of the individual characters and the narrative of the cartoon as a whole.

In his study 'Slapstick Modernism', Solomon insists that portrayed machines are not necessarily in support of machine culture. He considers the comic, Rube Goldbergian machines featured in Charley Bowers's stop-motion films to describe a particular kind of machine that subverts the intentions of a mechanized society.²⁰⁶ Solomon shows that, while the modernist era was full of serious responses to mechanized society, an equally important response is to be found in the playfulness of Bowers's machines and their paradoxical nature:

An over-reliance on the paradigm of a machine aesthetic blocks access to what I will call here a slapstick modernism, in which a series of wilfully undisciplined acts of cultural improvisation defied the priorities governing large-scale capitalist manufacture.²⁰⁷

Bowers's machines are so ridiculous in the amount of effort needed to accomplish simple tasks, that although the films portray the joy of invention, and therefore aesthetically praise the machine, they nevertheless contradict any principle of efficiency or superiority that could be considered central to machine ideology. 'Constructed in aleatory fashion out of scraps, residual materials plucked from elsewhere and arranged to form something different,' these machines do not serve any technical or social function of a mechanized society.²⁰⁸

Avery's cartoons potentially offer several levels of portrayal of machines that undermine any aims of efficiency and productivity. The simplest of these can be found in the onscreen depictions of machines that are cobbled together from existing mechanical apparatus and yet do not increase efficiency or otherwise promote a mechanized society. The series that sprang from *The House of Tomorrow* poked fun at the notion of mechanized society by featuring absurd machines of this kind. The individual machines featured are often cobbled

²⁰⁵ Norman M Klein, p. 75.

²⁰⁶ Rob King has suggested that the inefficient artistic 'diddling' of Bowers and his machines actually constitutes a form of 'antimodernism', which is further evidence for the difficulty of defining the outer boundary of modernism. See Rob King, 'The Art of Diddling: Slapstick, Science, and Antimodernism in the Films of Charley Bowers', in *Funny Pictures: Animation and Comedy in Studio-Era Hollywood*, ed. by Daniel Goldmark and Charlie Keil (Berkeley; London: University of California Press, 2011), pp. 191–210.

²⁰⁷ Solomon, (p. 171).

²⁰⁸ Solomon, (p. 173).

together in unlikely ways that would make their construction inefficient, if not altogether impossible, such as the sandwich maker or the sun lamp that features a giant spatula to turn the purchaser over (see figure 2.8). The machines themselves are not the only target of ridicule; the desires of the consumer that demands continual progress are shown to be frivolous and occasionally downright unsocial. The eponymous house of tomorrow has a separate entrance for each member of the family (the mother-in-law's door being barred and bolted), a machine that 'relieves Mother and Dad of the problem of answering Junior's many questions' by applying a plunger to the child's face, and a tax avoidance button to make the house's contents look poorer. Even the manner in which modern products are advertised and sold is mocked by having a matter-of-fact voice-over narration which describes the products in the unflinchingly optimistic tone of an advertiser. The absurd contrast between the enthusiastic description and the ludicrous depiction presents an impression of consumer society and its constant demands for technological progress as nonsense.

The cartoon character is also worth considering as an inefficient kind of machine. I have already suggested that the mechanistic qualities observed by Curtis constitute a rather complicated questioning of the boundary between human and mechanical. The boundary is certainly blurred by the paradox of portraying a character who attempts to escape the boundaries of the mechanical cartoon by becoming even more mechanically cartoonish. If we concede that the cartoon character is, at least from some perspectives, a kind of machine, then it can hardly be described as an efficient or productive one. If Screwy is a machine, for example, he certainly does not seem to achieve anything by indulging in his ability to behave in an extraordinary manner. His insane antics appear to have no goal at all. They are pure indulgences in the possibilities of the medium, very like Bowers's chaotic creations.

Another good example of a character behaving inefficiently and mechanically is the Wolf in *Red Hot Riding Hood* (1943). Unlike Screwy he has a stated goal, which is to seduce the girl "Red", and to escape the amorous attentions of the Grandmother. If his extreme bodily contortions can be described as mechanical, then they are very inefficient indeed since they help him to achieve nothing at all. One of the main scenes in the cartoon, which resituates the narrative in contemporary Hollywood, features the showgirl Red's performance of the song 'Daddy' and the Wolf's libidinous reactions to her. The

Wolf's increasingly extreme reactions to Red as he watches her sing and dance portray libidinal energy fairly unambiguously. At one point, he even conjures his own improbable machine, which includes several pairs of applauding gloved hands and a whistle. But for all the Wolf's mechanical excesses, he does not actually move himself any closer to his goal. He expends a lot of energy but never gets the girl.

One other layer of the cartoon's mechanics can be described as undermining the aims of industrialized society, and that is the narrative itself. If the cartoon itself is a machine, and if its goal can be said to be the conveying of narrative, then some of Avery's cartoons might be considered particularly inefficient ones. They borrow the trappings of narrative from older machines, but often only in order to explore the limits of a potential scenario, rather than to convey a fully-formed story. They are cobbled together haphazardly from elements of several older storytelling machines; they refer to vaudeville (through the spot gag), live theatre (when tomatoes are apparently thrown at the eponymous *Blitz Wolf*) and cinema (when a hair is apparently stuck in the projector in *Magical Maestro* (1952)). They also occasionally refer to their status as a drawn medium, when an animator's hand comes in to alter something (as in *Car of Tomorrow*). They only inefficiently convey their over-arching narratives, which were important to Avery only insofar as they were funny. Similarly, character development and motivation tended only to be expressed as minimally as was required to justify the action.

Often, a scenario would suggest itself to Avery or his writers that did not have an obvious conclusion, and many ideas would be shelved for this reason. Avery described the process in terms of a puzzle:

Sometimes we'd go back over our notes and find an idea that had a good beginning and no ending, and we'd finally solve it. [...] The real problem was to build up to a laugh finish. Gosh! If you build up to a point and then the last gag is nothing, you've hurt your whole show, audience-wise. So in all of them we attempted to be sure that we had a topper.²⁰⁹

Self-contained narrative scraps - gags or scenarios - are cobbled together inefficiently to indulge in playful possibilities. *The House of Tomorrow* and its successors were each a series of spot gags - isolated comic moments - linked by a voice-over narration. Avery explained that the drawback to these cartoons was

²⁰⁹ Adamson, p. 173.

that there was no final joke that could compare with a narrative twist, and structuring the cartoon simply became a matter of trying to place the strongest joke last:

'There was nothing to build to. Boom - you've got your last gag, which maybe you think is the strongest. Like a deck of cards, you pick the highest one, put it down at the end. It might be a little entertaining, but there's nowhere to go. Those were definitely cheaters, and I hated to make 'em, but we'd get stuck once in a while.'²¹⁰

Avery's failure to find an ending suggests that, if the cartoon is to be seen as a machine, it is not particularly efficient or productive.

Of course, it would be naive to consider the sole aim of the cartoon to be the conveying of narrative. In terms of a product to make money, the cartoon was just as efficient as the film, the novel or live theatre. But within the limits of what can be achieved artistically, rather than economically, Avery's cartoons come quite close to failing in their self-assigned tasks.

It is worth considering whether the cartoon's musical scores can also be described as inefficient machines. The first difficulty with asking this question is that the goal of the music remains unclear. It may be impossible to say whether the cartoon score has definite goals or whether, like *Screwy* or the cartoon itself, it has no goals. But during those moments of shock - where the character and the music are both distorted - it might be possible to describe the music as a 'wilfully undisciplined' exploration of dissonances designed to disrupt the governing tonality.²¹¹ Like *Screwy's* reshaping of the chase narrative, this music playfully pokes holes in the existing regime of tonality rather than making a serious attempt to take over or destroy it. If Bradley had composed an entirely twelve-tone score, for example, he might have been described as making an efficient attempt to instigate a new regime. But his short forays into the atonal idiom, like his dissonant shock chords, are more playful. The scores incorporate the new atonality in much the same way Bowers's machines incorporate motors (or, indeed, in the way *Screwy* performs metagags) - for the novelty. They harness new methods but without supporting the implied aim of replacing an out-of-date regime. The atonal moments are surrounded and constrained by tonal cadences, much as *Screwy* is constrained by the chase. Although it is difficult to say what the music's aim is, besides reinforcing the cartoon, or argue

²¹⁰ Adamson, p. 173.

²¹¹ Solomon, (p. 171).

that it fails to do that efficiently, the musical score nevertheless plays with its mechanics for the sake of novelty, rather than any claim to greater efficiency.

In conclusion, the cartoon's response to the machine is a complex one. If Klein's assertion that the medium is an 'all-encompassing hymn to the machine world' is correct, then this is a hymn that often voices highly ambiguous connotations. Moments where the narrative pauses to allow the characters, and the music, to indulge in expressive anarchy suggest a space for the spontaneity of human feeling in an otherwise mechanically ordered world. And, since the nature of that expression often involves a comedic resemblance to a different kind of machine, the characters are possibly engaging in their own shaping of their mechanical surroundings by dictating the form that machine might take. Anarchic characters like Screwy appear to be replacing the cartoon's machine for one of their own making, but they do so by taking on attributes of the animator - expressing an organic, individual freedom that challenges the distinction between man and machine. Avery's cartoons further challenge mechanized society by apparently undermining any of its obvious aims. They both portray and resemble machines but apparently do so only in order to indulge in expression without endorsing any of modern society's aims of efficiency and stable organization.

vi. Self-Reflexivity and the Brechtian Cartoon

A critical investigation into an artistic foregrounding of its own materials almost inevitably touches upon, or overlaps with, the crucial 'modernist' notion of aesthetic self-reflexivity. Indeed, Avery's work, and many of the cartoons of his contemporaries at Warner Bros., has occasionally been studied from the perspective of their reflexivity. In particular, the more reflexive moments, such as a character's direct address or a particularly improbable gag, have been considered by at least a few commentators in light of Brecht's famous *Verfremdungseffekt*, or distancing effect, whereby the audience is reminded of the artificiality of the unfolding drama. On the whole, however, existing discussions of reflexivity in Avery's style have little to say about the dimensions of music and sound. But there are undoubtedly examples of musical and sound practices that may make the artifice of the whole audio-visual aggregate almost impossible to overlook. For one relatively obvious example, film funning (quoting

music with humorously appropriate titles) is clearly a self-conscious acknowledgement of the cartoon's place within wider culture, and can thus lay claim to a somewhat similar effect as a direct address from the cartoon 'world' to our own. And, as will be seen, the prevalence of self-reflexive gestures fosters an atmosphere of experimentation and deliberate transgression which also allowed Bradley's music to be avant-garde in a populist genre long before similar sonorities were acceptable in film music more widely.

For Klein, Brechtian distancing is universal to all chase cartoons, because the simple vision of characters running on screen 'revealed the clockwork of animation':

Film historians often compare that clockwork effect to a Brechtian device. The motorized look of the chase gag distances the character from the drama.²¹²

Even more Brechtian are the metagags, which subvert the audience's suspension of disbelief. Klein does not use the term 'metagag', but he describes the kind of gag that would provoke a distancing effect:

Abandoning what seems to be motivated action, the character will suddenly talk to the silhouette of someone in the audience, stop to show us a sign: "Silly, isn't it?" Or get sucked from the projection booth onto the screen, like Keaton's Sherlock Junior.²¹³

Examples of this sort crop up throughout all of Avery's cartoons. The silhouette of an audience member is rebuked by a character in *Who Killed Who?* (1943); in *The Blitz Wolf*, the eponymous Hitler caricature holds up a sign that says, 'Go on and hiss! Who cares', and has a tomato thrown into his face from the audience. It is easy to see how an audience could feel 'distanced' from a straightforward identification with characters when the unfolding narrative is constantly disrupted and diverted by metagags. However, while the experience of cartoon distancing may resemble what Brecht meant by *Verfremdungseffekt*, it is worth questioning whether they are necessarily 'Brechtian'.

In his chapter for the second volume of *Movies and Methods*, Polan points out that the foregrounding of the mechanisms of art, and the resulting effect of surprising the audience, predate Brecht considerably:

If we survey the development of the literary and dramatic arts, we continually come across examples of art which signal awareness of their own artifice. Literary critics often point to Laurence Sterne's 18th-century novel *Tristram Shandy* as a special highpoint of conscious

²¹² Norman M Klein, p. 168.

²¹³ Norman M Klein, p. 168.

artistic artifice; [...] Yet in the same literary period, Henry Fielding's *Tom Jones* goes as far as Sterne's book in uncovering the codes which a reading of literature depends upon.²¹⁴

These renowned literary instances aside, we might also point to the ancient comedic traditions from which - as already noted - the cartoon can be recognized as a relatively direct descendant. The *Commedia dell'arte*, *Punch and Judy*, and various street theatre practices have long tended to acknowledge their status as performances, often through well-established devices of narrative and material reflexivity.

Polan considers the distancing effect to not only predate Brecht, but to be more prevalent in contemporary film than is generally acknowledged:

All art is distanced. This is as true of Hollywood as of Laurence Sterne or Aristophanes. We learn to read through this distance from material reality, but we also learn to want new distances. Hollywood not only presents unreality as reality; it also openly acknowledges its unreality.²¹⁵

Polan highlights the cartoon, and the fact that metagags are the norm in certain cartoons, as evidence for the widespread presence of distancing effects in Hollywood. But for Polan, the commonly occurring type of distancing is not Brechtian. The crucial difference lies in the fact that Brecht's *Verfremdungseffekt* was an attempt to refer outwards from the artwork to wider culture. By contrast, Polan has observed that the cartoon tends to use metagags that only refer back to the work itself, turning the distancing effect into a purely formalist gesture.

Polan considers the Warner Bros. cartoon *Duck Amuck* (dir. Chuck Jones, 1953), which is arguably even more of a metagag than Avery ever came up with. In it, Daffy Duck is constantly tormented by the animator as he tries to act his way through the cartoon. He addresses both the audience and the cartoonist in bewilderment as backgrounds shift, props vanish, and he himself is transformed until nothing but his beak is recognizable. When, at the end of the cartoon, the camera zooms out of the frame to reveal the animator, it turns out to be Bugs Bunny who is sat at the easel. As Polan says, '*Duck Amuck* closes in on itself, fiction leads to and springs from fiction, the text becomes a loop which effaces social analysis.'²¹⁶

²¹⁴ Polan, (p. 666).

²¹⁵ Polan, (p. 667).

²¹⁶ Polan, (p. 668).

Polan's article is primarily concerned with saving Brecht and the *Verfremdungseffekt* from being considered a purely formalist practice. Brecht's theories of theatre are closely tied to the belief that art ought to take a political stance; the purpose of the *Verfremdungseffekt* is primarily to encourage the audience to consider in what ways the artwork is situated within wider culture. It would be possible to argue that some of Avery's metagags do in fact do this. The practice of quoting existing melodies is surely a gesture that refers outwards to wider culture. Avery's *House of Tomorrow* and its series refer to and comment on consumer culture in a way that might invite the audience to consider politics. Even so, however, it seems undeniable that in most of his cartoons it is difficult to discern any social or political commentary, and Avery never seems to have spoken of political aims when interviewed.

Polan's point is that the foregrounding of artifice is not enough in itself to earn the label 'Brechtian', which label, in his view, would require also that the work presented a deliberate attempt to be political:

Art automatically embodies a distancing, a making strange. But there's nothing yet political about that. To be political, art for Brecht has to be made so.²¹⁷

Polan's focus is on Brecht, but his argument also has bearing on how the cartoon might be reconsidered. If we broaden the definition of *Verfremdungseffekt* to include all instances of distancing, whether political or apolitical, we risk losing what is special about Brecht. But we also risk shading back towards that normative, qualitative language already encountered with Adorno and Eisler, and criticising the cartoon anew as a merely 'pseudo-Brechtian' artwork - one that uses the devices of Brecht but without making a serious political point. Not only would this assessment suggest the cartoon's form of self-reflexivity is somehow lacking in substance or import, it also fails to acknowledge the presence of distancing humour in the rich tradition of slapstick comedy. If the cartoon is labelled 'Brechtian' it loses its connection to the older forms of self-reflexivity in slapstick.

It is better, therefore, to leave Brecht to one side and consider the distancing effect as being a characteristic of certain kinds of popular entertainment. Rather than focusing on the potential to make political commentary, we can consider how else self-reflexivity serves the cartoon. There

²¹⁷ Polan, (p. 669).

seem to be two main reasons why self-reflexivity is important to Avery's cartoons. The first of these is its usefulness as a technique to increase the illusion that the cartoon 'actors' have some autonomy from the cartoon around them. Brecht used direct address in order to undermine the audience's belief in the characters, but Terry Lindvall and Matthew Melton point out in their 1994 *Animation Journal* article that, where an animated figure is concerned, direct address actually increases the illusion that they exist in the first place:

When the text acknowledges the presence of a generalized reader, it procures from the audience the plausibility of existence. [...] Bugs Bunny's discursive behaviour enables the spectator to attribute more actuality to him than to either Popeye or even Donald Duck. [...] Woody Allen talking to us is unremarkable. But for Bugs and his ilk, the word and image become the miracle of new creation. He who has no being, whose presence in the film is a veritable absence, now exists in a phenomenological encounter.²¹⁸

The very idea that cartoon characters are fully rounded, with emotions, thoughts and motives, is an illusion the animators have to take pains to establish.²¹⁹ By giving figures like Screwy the added ability to step out of character and make a wise-cracking remark about the narrative, Avery deepens the illusion and adds interest to the unfolding drama.

The second reason that self-reflexivity benefits the cartoon is that it gives a wealth of new avenues for comedic innovation. Avery's humour can be characterized as a multi-dimensional combination of established narrative formulas and new aesthetic developments. Generally, he was happy to recycle old ideas: *Red Hot Riding Hood* had its roots in an earlier Warner Bros. cartoon *Little Red Walking Hood* (dir. Avery, 1937) and was followed up by several other cartoons that featured the Wolf's libidinous contortions upon seeing the showgirl's performance. John Steinbeck's *Of Mice and Men* spawned several Warner Bros. and MGM cartoons in which Avery featured a Lenny-esque character, including *Of Fox and Hounds* (Warner Bros., 1941) and *Lonesome Lenny* (MGM, 1946) in which Screwy finally met his demise when was petted too strongly by the eponymous antagonist. Formally speaking, there is an abundance of chase cartoons, which can be traced back to the very earliest ventures in the

²¹⁸ Lindvall and Melton (p. 50).

²¹⁹ Crafton provides an in-depth discussion of the ways cartoon characters are perceived as performers throughout *Shadow of a Mouse*. Particularly pertinent to Lindvall and Melton's point is his consideration of Betty Boop as Vaudeville star. See Crafton, *Shadow of a Mouse*, pp. 26-28.

medium. And musically Avery was happy to re-use well-known pieces such as Stephen Foster songs or the overture to *William Tell*.

The recycling of old stories might be considered a mildly self-reflexive practice, since the cartoon is acknowledging its place within wider culture. But it is not a practice particularly beneficial to comedy, since humour is generally considered to require novelty. The innovations which Avery made to the standard elements refreshed anything in danger of becoming stale, and turned established formulas into ground-breaking humour.

Among the more self-reflexive innovations were transgression of formalist rules, which Avery often used to create comedy. Curtis has identified a device often used by Avery in which something unexpected is revealed as the camera pans across:

Meathead, the dog, has chased Screwy up a tree. In a medium two-shot Meathead backs Screwy onto a branch. Screwy backs out of the frame right, leaving Meathead alone in the frame. Meathead proceeds forward, the camera tracking slowly to follow, he suddenly registers surprise and the camera pans quickly right to reveal a sign at the end of the branch: "Sucker!" Even though Meathead should be able to see beyond the frame - if this were a live-action film - he does not; the frame almost forces his inattentiveness.²²⁰

In this case, the simple reflexive play with the 'frame' allows Avery to transgress the rule or expectation of Meathead's normal sight in the 'world' in which he lives, which is one of the most basic assumptions of realistic audiovisual narrative.

An even more basic assumption that Avery subverted for the sake of comedy is the concept that the fictional world is discrete and has physical or material integrity. Jean-Marc Limoges has attempted to describe the varied ways in which Avery broke this convention.²²¹ 'Metalepsis' occurs when something breaks the boundaries of a fictional world by appearing to escape it. Direct address might be perceived as a form of metalepsis, because the character acknowledges the world outside the fiction. Someone being sucked into the world of a film, or a fictional character escaping into the real world, would also be metalepsis. But Avery's cartoons offer innumerable examples of physical movement between two distinct realities, such as when Screwy finds a full-size

²²⁰ Curtis, 'Tex Avery's Prison House', (p. 221).

²²¹ Jean-Marc Limoges, 'Metalepsis in the Cartoons of Tex Avery: Expanding the Boundaries of Transgression', in *Metalepsis in Popular Culture*, ed. by Karin Kukkonen and Sonja Klimek, Narratologia: Contributions to Narrative Theory (Berlin; New York: De Gruyter, 2011), pp. 196–212.

railway and station platform inside a tree trunk. (We glimpse the train inside the hollow as though the gap in the trunk were a window.) Limoges has attempted to categorise these moments of metalepsis in Avery's work. Using a framework begun and adapted from Gérard Genette's original coining of the term, he identifies some instances of 'descending extradiegetic transgressions' in which 'it is the extradiegetic producers that are breaching the boundaries', such as the animator's hand and pencil coming in to cross out a joke in *Car of Tomorrow*.²²² In another category, there are the 'extradiegetic ascending transgressions' in which a character appears to interact with the audience.²²³

The relatively simple impression constructed by Limoges's terminology is of nested worlds - the fictional diegetic world *in there* and the extradiegetic world *out here*. But that model is complicated not least because the world of the producers may be discrete from that of the audience. Avery refers to the latter when a tomato sails (apparently out of the cinema audience) onto the face of the Blitz Wolf, but the former by having the animator's pencil interact with the images in *The Car of Tomorrow*.) Genette's model is complicated still further by the category of 'horizontal interdiegetic metalepsis', in which a character appears as if by mistake in the wrong cartoon, apologises and leaves (*Swing Shift Cinderella* (1945), *Screwy Truant* (1945)).²²⁴ So common and varied are the many acts of metalepsis, that Limoges is forced to admit that some of them defy categorization, such as the book in *Who Killed Who?* (1943) entitled: 'Who Killed Who: Based on the Cartoon of the Same Name', or the billboard advertising *The Early Bird Dood It!* (1942) within the very same cartoon. Limoges concludes:

Tex Avery's cartoons alone seem to offer a nearly exhaustive repertoire of the forms of transgression, almost forcing us to expand Genette's definition and all subsequent versions coined by his followers. But Tex Avery's cartoons also present instances of broken boundaries that would have been difficult to integrate into this typology - proof that as he expands the boundaries of transgression, he also invites expansion of the boundaries of knowledge, a challenge he presents not only to his characters, his producers, and his audience, but also to theoreticians.²²⁵

The concept of 'expanding the boundaries of transgression' is an interestingly reflexive one. It suggests that the cartoon at once transgresses boundaries and creates new ones, or finds new ones, to transgress. And this constant exploration

²²² Limoges, (p. 207).

²²³ Limoges, (p. 207).

²²⁴ Limoges, (p. 210).

²²⁵ Limoges, (p. 211).

and discovery of new boundaries through transgression might actually be necessary for the continuation of the comedy. In order for Avery's metagags to be funny, they must transgress rules that are well-established, known to the audience, and not habitually broken. If it becomes ordinary for the rule to be broken, the breaking of it is no longer funny. When the rules are purely formal, and therefore subject to change, the very existence of gags that transgress them risk turning the transgression into a new rule. The new rule is then itself open to being transgressed for comic purposes. The development is cyclical, with the comedy always at the forefront of the cycle.

A recent example of this comic evolution can be found in the sound design of situation comedies. In a 2001 essay about postmodern television soundtracks, Julie Brown describes a formalist gag in *Ally McBeal* (dir. Mel Damsky et al, 1997-2002):

Lower-level alienation gags abound, such as the cartoon-like sound of a needle scratching across vinyl as the musical soundtrack 'screeches to a halt' ('Oops. Wrong soundtrack!'). This gag is now everywhere on TV, but it is worth pointing out that in a more conventional film score the scene would have begun with different music, prompting from the beginning something that was 'underscoring' what was visually apparent.²²⁶

This is exactly the kind of gag under discussion - one that can be likened to Brecht's *Verfremdungseffekt* (here translated as 'alienation') as it transgresses the accepted norm of using 'correct' music from the beginning of the scene. When Brown described the technique, it was already on the way to becoming a norm in itself ('now everywhere on TV'), and in fact it has recently been transgressed to create new humour. In an episode of the sitcom *How I Met Your Mother* called 'Bad Crazy' (dir. Pamela Fryman, 2013), after the familiar sound of the record being abruptly changed, the main character Ted shouts to another off-screen, 'Aw, man! Jeanette, come on, that's vintage vinyl!', prompting the audience to reconsider the soundtrack once again.²²⁷

It seems plausible to suggest that Avery's metagags are avant-garde because that is where the comedy lies - at the forefront of formalist rule-breaking. Although the cartoons use tried and tested formulas, they also experimented wildly in order to break accepted formal rules. Formal comedy's

²²⁶ Julie Brown, 'Ally McBeal's Postmodern Soundtrack', *Journal of the Royal Musical Association*, 126 (2001), 275-303, (p. 286).

²²⁷ 'Bad Crazy', dir. by Pamela Fryman, *How I Met Your Mother*, 8.16, CBS, 11 February 2013, rereleased in *How I Met Your Mother: The Complete Season 8*, (20th Century Fox Home Entertainment, 2013) [on DVD].

constant need for innovation is shared by more serious self-reflexive gestures. Both self-reflexivity and formalist humour need to use techniques at the very forefront - the avant-garde - of artistic development. Avery's metagags, therefore, have techniques in common with Brecht, but without the same goals or ultimate effects.

The culture of transgression engendered by Avery's style of comedy is possibly what allowed Bradley to experiment with advanced musical composition. The silliness of constant formal play in Avery's cartoons allowed Bradley to transgress accepted norms such as tonality, and present the audience with the unfamiliar. The same could be said of the post-production sound practices of the cartoons. The extremely fragmented structure of the soundtrack as it leaps from quotation to shock chord, from a delicate melody to a crashing sound effect, would be quite difficult to listen to in isolation. Indeed, Barrier has remarked:

Separate his music from the cartoons and for some long stretches it could be confused with a particularly cold and disagreeable contemporary classical score.²²⁸

If Barrier's opinion was shared by the cartoons' audiences, it seems fair to raise the question of how Bradley's music could ever have formed part of a popular entertainment. One possible answer is that the context of innovative formal comedy, and the reckless atmosphere of experimentation created by the unpredictable antics and metagags, meant that all kinds of avant-garde practices were given an acceptable context.

vii. Conclusion

Avery's work has often been considered as a form of modernism, for several reasons. Perhaps the most appropriate of these is the fact that Avery's cartoons do offer a response to modern life and the machine. However, the response is hardly clear-cut in its effects and implications. Although Klein has asserted that the mechanical nature of these cartoons makes them seem strangely supportive of the machine aesthetic, the anarchic character of the unfolding narrative actually goes against core principles of a mechanistic society including mechanistic efficiency and maximal productivity. So while Avery's cartoons do

²²⁸ Barrier, *Hollywood Cartoons*, p. 421.

respond to modern life, they do so in a playful way which makes it difficult to discern any serious political statement.

Some of the artistic techniques used in Avery's cartoons, including several sound and music practices, have also been considered modernist. Some of the extreme distortions of the characters, as well as the more geometric aesthetic of cartoons such as *A Symphony in Slang*, have led Avery's work to be compared to certain modernist painters; Bradley's use of twelve-tone phrases has attracted similar scholarly emphasis. However, Avery's and Bradley's attitudes towards the new techniques tended to be somewhat opportunistic and even exploitative - they did not apparently share many of the ideals common to more portentous strains of modernist art. This has led to the cartoons usually being deemed some form of 'pseudo-modernism', sharing certain of modernism's techniques but not fully deserving consideration as high art.

An alternative is to see the cartoon's more unusual techniques as placing it in the slapstick tradition, which has often incorporated similar whimsy, even extending to radical experimentation. Self-reflexivity in particular is a long-established feature of slapstick comedy. It is probably truer to describe high-art modernism as borrowing techniques from popular culture. But even if that assertion is controversial, it is at least fairer to Avery and Bradley to describe their techniques - including the experimental ones - as being a development of the popular comedy tradition which includes vaudeville, pantomime and the *Commedia dell'arte*, rather than a poor imitation of an unrelated artistic genre. Once the connection to the slapstick tradition is re-established, the purpose of using avant-garde techniques becomes clear: they are a way of keeping novelty in comedy that was otherwise very repetitive. The self-reflexive metagags in particular foster an environment of formal experimentation which in turn makes it possible to incorporate highly unusual practices, such as atonal music, that would otherwise perhaps have been unacceptable to the contemporary cinema audiences.

viii. Figures

Figure 2.1: Puttin' on the Dog (04'31" approx.), copied from the orchestral score.

Piccolo and Oboe
(in octaves)

267 268 269

Jerry's first appearance wearing the dog mask. The first nine notes are correct according to the primary row, but notes 10-12 do not tally. The final three notes of the example are not analysable in twelve-tone terms.

Figure 2.2: First six bars of Bradley's unpublished 'Sketches for Str. Quartet on 12 tone technique'.

Violin I

Violin II

Viola

Cello

Vln. I

Vln. II

Vla.

Vc.

The first violin plays the primary row (with some repeated alternating notes as was generally permitted by Schoenberg and his school); the second violin plays the primary inversion; the viola plays the retrograde; the cello plays the retrograde inversion.

Figure 2.3: *Puttin' on the Dog* (04'12" approx.), copied from the orchestral score.



Tom walks with his head tucked invisibly between his shoulders, making himself appear headless. Bradley's audience's first exposure to his twelve-tone material; an unaccompanied clarinet plays the retrograde – identical to that of the quartet.

Figure 2.4: *Puttin' on the Dog* (05'04" approx.), copied from the orchestral score.

Musical score for Piccolo, Oboe and 3 Clarinets showing measures 305, 306, and 307. The notation is in 2/4 time and features triplets of notes with various accidentals, including a tritone interval.

Another instance of Jerry wearing the dog mask. The departure from the twelve-tone row again occurs after the first nine notes, this time omitting F#. The end of the phrase appears once again to be freer material.

Figure 2.5: *Little Rural Riding Hood* (02'27" approx.), copied from the orchestral score.

Musical score for Flute and Oboe showing measures 113, 114, and 115. The notation is in 2/4 time and features a series of notes with various accidentals, including a tritone interval.

The rural Wolf enters the hotel. The first eight notes of the primary row appear in the oboe, while the flute plays the first eight notes of the retrograde. From the middle of bar 113 the twelve-tone phrase is abandoned in favour of freely atonal material. The distinctive element of three rising semiquavers in the oboe (A, A#, B in bars 112-113) is imitated several times (D, D#, E in bar 113; C#, D, Eb in bar 114), which hints at possible relationships to the various transpositions of the row (and the inversions), but since the integrity of the rows is not maintained it is more appropriately analysed as imitation or motivic similarity.

Figure 2.6: 'Grotesque' twelve-tone images



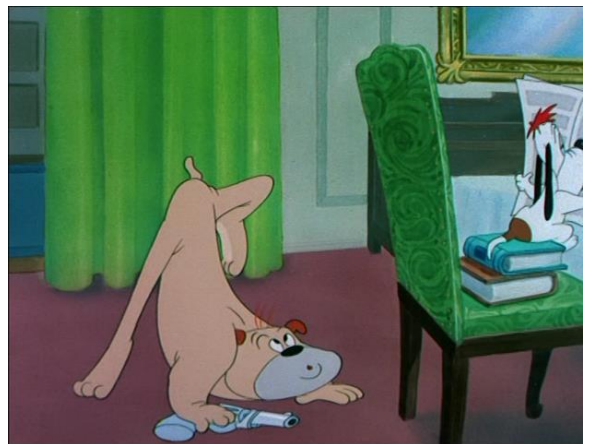
Jerry runs around with the dog mask on his head in *Puttin' on the Dog*.



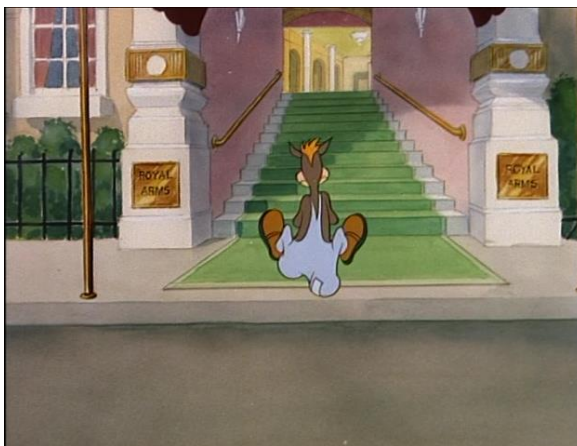
Tom walks around apparently headless in *Puttin' on the Dog*.



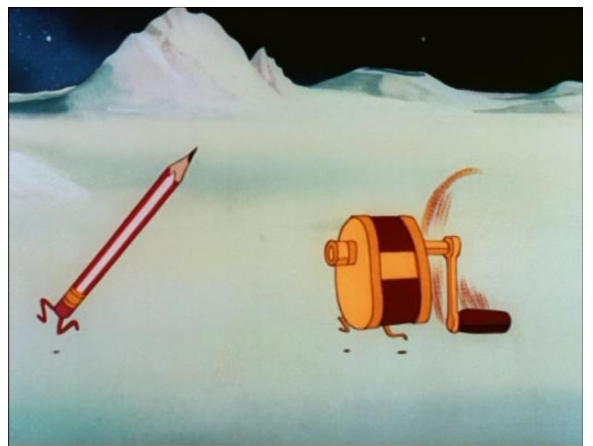
A basket moves apparently of its own accord in *The Milky Waif* (dir. Hanna and Barbera, 1946).



Spike the dog creeps forward improbably in *Wags to Riches* (dir. Avery, 1949).



The uncouth Wolf walks on his buttocks in *Little Rural Riding Hood* (dir. Avery, 1949).

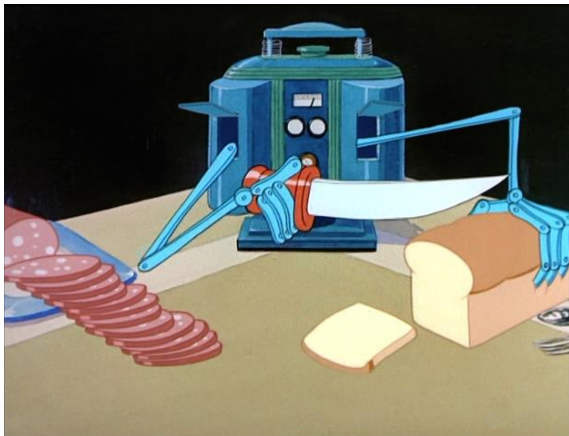


A pencil sharpener chases a pencil on the moon in *The Cat that Hated People* (dir. Avery, 1948).

Figure 2.7: Compiled sounds during the opening titles for *Happy Go Nutty* (1944), transcribed from the cartoon.

The musical score is transcribed across three systems of staves. The first system (measures 1-4) features a treble clef staff with notes marked 'plucked strings(?)' and a bass clef staff with notes marked 'Orchestra'. The second system (measures 5-8) includes a treble clef staff with notes marked 'slide whistle' and 'Orchestra', a middle staff with notes marked 'percussion(?)' and 'clang', and a bass clef staff with notes marked 'pop' and 'twang'. The score also includes various musical notations such as triplets and rests.

Figure 2.8: Unlikely machines in *The House of Tomorrow*



Sandwich maker



Sunbed

Figure 2.9: The Wolf's libidinous and mechanical reactions in *Red Hot Riding Hood*



3 Chapter Three: William Hanna, Joseph Barbera and Musical Comic Timing

*i. The History of Tom and Jerry*²²⁹

Between 1937 and 1957, William Hanna and Joseph Barbera directed a total of one hundred and fourteen *Tom and Jerry* cartoons, of which all but one or two were scored by Scott Bradley.²³⁰ This was to be the single largest series of cartoons made at MGM during the time they maintained a cartoon studio. It was so successful that after MGM shut down its own cartoon department (at which point Bradley retired), it commissioned yet more *Tom and Jerry* cartoons from several outside sources. Between 1961 and 1962, Gene Deitch directed thirteen cartoons at Rembrandt Films in Czechoslovakia, after which Chuck Jones directed thirty-four at Sib Tower 12 Productions between 1963 and 1967. All of Deitch's and Jones's cartoons were distributed by MGM. In 1975, Hanna and Barbera became involved once more, when their own company Hanna-Barbera Productions made a further forty-eight cartoons.

By this stage, the cartoons were being produced for television, rather than theatres, but MGM were still involved as financiers. Filmation Associates were the last company to produce *Tom and Jerry* cartoons for MGM. They made thirty cartoons between 1980 and 1983, after which MGM sold the rights to Turner Entertainment. With Turner, Hanna-Barbera Productions made seventeen episodes of *The Tom and Jerry Kids Show*, which featured younger-looking versions of the characters. Turner also produced the feature-length *Tom and Jerry: The Movie* (dir. Phil Roman, 1992). In the decades since Turner merged with Time Warner in 1996, nine further feature-length releases have been produced by Warner Bros. and released for the home entertainment market, the most recent being *Tom and Jerry: The Lost Dragon* (dir. Spike Brandt, Tony Cervone, 2014). Warner Bros. also produced twenty-two television episodes, each featuring three stories, from 2006 to 2008. They have also announced plans

²²⁹ Much of the historical information for this section is drawn from Barrier, *Hollywood Cartoons*.

²³⁰ The exceptions were *The Missing Mouse* (1953) which was composed by Edward Plumb while Bradley was on vacation, and possibly *The Million Dollar Cat* (1944). Bradley received the only music credit for the latter, but examination of the archived orchestral score bears the inscription, 'Adapted by Ted Duncan'. As Barrier has remarked, this score is very unlike Bradley's other work of the period, since it 'sounds like ordinary dance-band music, related only tenuously to the cartoon action'. It seems plausible that Duncan adapted the score from pre-existing songs because Bradley was unavailable, and the latter received credit for contractual reasons. See Barrier, *Hollywood Cartoons*, p. 421.

to produce a further television series and a theatrical film.²³¹ In addition, the original series of MGM theatrical shorts have continued to be shown on television since the early 1960s.

Given the vastness of the *Tom and Jerry* franchise in comparison to MGM's other cartoon output, it hardly seems surprising that these cartoons provide the central, if not the sole, focus of almost all the extant Scott Bradley scholarship. Furthermore, the fact that the cartoons between them won eight Academy Awards, while receiving a further six nominations, must have made them particularly attractive as a subject for animation research.²³² But there are other reasons why the *Tom and Jerry* cartoons deserve close critical attention.

One reason why *Tom and Jerry* is useful in a study of Scott Bradley's music is that these seem to have been the cartoons he himself was most willing to discuss. Out of seven direct references to particular cartoons that can be found in Bradley's own writings, five concerned *Tom and Jerry* cartoons. And, as already noted in the discussion of Avery's work in Chapter Two, Bradley discussed techniques such as the 'shock chord' with specific reference to *Tom and Jerry* even though, in all likelihood, he had used them for Avery cartoons first. Of course, considering the issue from the other direction, it is possible that Bradley chose these cartoons for particular emphasis because the characters were so popular. It is also possible that he was able to see his own development as a composer against the background of a long series of cartoons whose basic setup remained the same across several years. This is another reason why scholars may have been drawn to the *Tom and Jerry* cartoons in particular. It is much easier to notice new compositional techniques when the scenes they are accompanying vary only a little.

But there is another reason why the *Tom and Jerry* cartoons are of particular importance, and that is their style of narrative humour. Even if the cartoons can be labelled 'chase' narratives, they are very different from Avery's chases, by virtue of the fact that the characters are enduring. The audience

²³¹ Marc Graser, 'Tom and Jerry Head to the Bigscreen', *Variety*, 21 January 2009 <<http://variety.com/2009/digital/news/tom-and-jerry-head-to-the-bigscreen-1117998898/>> [accessed 23 January 2015].

²³² The winners, which were in the 'Short Subject: Cartoon' category, were *The Yankee Doodle Mouse* (1943), *Mouse Trouble* (1944), *Quiet, Please!* (1945), *The Cat Concerto* (1946), *The Little Orphan* (1948), *The Two Mouseketeers* (1952), and *Johann Mouse* (1953). By comparison, Ising won the same award once, with *The Milky Way* (1940), and had one other cartoon nominated. Harman's cartoons gained one nomination, and he collaborated with Ising on two further nominated cartoons. Avery's MGM cartoons were awarded two nominations altogether. See Academy of Motion Pictures Arts and Sciences.

grows to know Tom and Jerry; affection for the characters somewhat tempers the ferocity of the violent chase. Just as importantly, there are next to no metagags in the *Tom and Jerry* cartoons. Apart from the odd moment of direct address, such as Tom grinning pantomimically towards the viewer, the narrative unfolds within a stable fictional world. On the other hand, the antics are generally more violent, more extreme, and more geared towards creating humour in the cartoons of Hanna and Barbera than they were in most of those of Harman or Ising. The challenges of composing for *Tom and Jerry* can therefore be seen to be quite different from those Bradley encountered while working either with Avery, Harman or Ising. It seems to be a style to which Bradley's approach to composition was particularly well suited.

In this chapter, I want to use the *Tom and Jerry* cartoons to examine how the music supports a particular, relatively distinct, style of comedy. This comic style differs considerably from that of Avery's cartoons, and thus more or less by definition relies on different kinds of musical support. Music, it is traditionally accepted, can offer insights into a character's psychology, which is arguably a more important trait in the *Tom and Jerry* style of comedy than that favoured by Avery. The narratives of *Tom and Jerry* tend to be constructed around a battle of wills, in which knowledge of the characters' motivations and emotions is essential to understanding the comedy. The narratives are quite different from Avery's concoctions of improbable physical and narrative distortions. Avery's narratives tended to involve very simple premises that required minimum understanding of character motivation. Indeed, in several of his cartoons, such as *Red Hot Riding Hood* and *Screwball Squirrel*, the characters know they are 'acting' in a cartoon. If Avery's comedy had any psychological dimension, it resided in the portrayal of exaggerated extremes: absolute shock, disbelief and horror at some impossible scenario - for example, the convict's terror upon finding that his pursuer Droopy has (impossibly) beaten him to his next hiding place in *Dumb-Hounded*, which prompted Bradley's first use of a shock chord. By contrast, Tom and Jerry's psychological journey through any given cartoon tends to be one that covers a whole range of emotions, and their motivations are often quite complicated.

Crafton has identified two tendencies in 'cartoon acting' which may be of use here, in the difference between 'figurative' and 'embodied' performances. In a figurative performance,

Characters ‘behave as recognizable “types,” marshalling a small range of instantly identifiable facial and body expressions. [...] These performances are formally presentational, meaning that the actors often face the audience and display their talent as though putting on a show.’²³³

Embodied acting, on the other hand,

is the philosophy and practice of creating imaginatively realized beings with individuality, depth, and internal complexity.²³⁴

As Crafton emphasises, the distinction is by no means a binary. Avery, Hanna and Barbera equally used both figurative and embodied performance in their cartoons. But it is an expedient observation that Avery’s cartoons tended to shy away from the embodied in favour of the figurative, whereas the characters of Tom and Jerry display their embodiment deliberately, and participate in narratives where ‘individuality, depth, and internal complexity’ are essential to the comedy.

For the detailed example of this chapter, I have chosen *Little Runaway* (1952), in which Jerry is trying to protect an escaped baby seal while Tom is trying to capture it for a reward. Tom’s usual motivation for chasing Jerry is supplemented by his greed, while Jerry acts out of compassion as well as self-preservation. Along these lines, most of the *Tom and Jerry* cartoons have a more complicated premise than a simple chase: only ten of them have no additional characters. Even in the very first cartoon, *Puss Gets the Boot* (1940), the additional presence of a housemaid complicates the dynamic between cat and mouse.²³⁵ The maid has threatened to throw Tom out into the cold, rainy night if he breaks anything, so that Tom is comically torn between his desire to catch Jerry and his fear of incurring her wrath should he break anything.

At the level of large-scale form, the *Tom and Jerry* cartoons tend to feature a narrative arc that is closer to the unified stories of Harman or Ising, rather than the fragmentary style of Avery’s cartoons. There is often a sense that events are moving towards some sort of conclusion, even though the

²³³ Crafton, *Shadow of a Mouse*, p. 23.

²³⁴ Crafton, *Shadow of a Mouse*, p. 36.

²³⁵ In *Puss Gets the Boot*, the cat’s name is actually Jasper. According to Hanna, the mouse was to have been called Jinx (although he goes unnamed within the cartoon itself). The names ‘Tom and Jerry’ may have been copied from a Van Beuren Studios cartoon featuring a pair of human characters. Barbera had worked at Van Beuren before moving to MGM. Hanna could not recall whether he or Barbera came up with the names; Barbera claimed in his autobiography that the studio personnel submitted names into a hat. In any case, Hanna stated they only needed to gain legal consent from the owners of the ‘Tom and Jerry’ branded cocktail consisting of rum and egg. See Hanna and Ito, p. 46. C.f. Barbera, p. 76. C.f. Barrier, *Hollywood Cartoons*, p. 405.

unfolding is occasionally broken up by gags. The music helps to pace the unfolding by providing an underlying metrical and harmonic rhythm for the action, and it also highlights important developments and individual gags by breaking up that rhythm and by introducing passages of blatant Mickey-Mousing. A similar unfolding takes place on the smaller scale of a single gag, in which a character sets up some sort of expectation for the audience. For example, Tom catches sight of Jerry and starts to chase him, which sets up the expectation that he will continue to chase Jerry until he catches him. This expectation might be fulfilled or thwarted if Tom is distracted or collides with an unforeseen obstacle. The music supports the smaller-scale unfolding in a similar way by providing an underlying rhythm and punctuating collisions.

In her recent study of Mickey-Mousing, Jacobs has made some pertinent observations about the role of music in articulating the large- and small-scale narrative pacing of three Disney cartoons: an early *Silly Symphony* called *Hell's Bells* (dir. Ub Iwerks, 1929), *Three Little Pigs*, and the Mickey Mouse cartoon *Playful Pluto* (dir. Burt Gillet, 1934). Some of her observations are directly applicable to Bradley's score for *Little Runaway*. For example, scenes of chase are contrasted to the preceding restful scenes both visually, by speeding up the cutting rate for example, and musically by increased tempo, a shift from major to minor tonality, and the abandonment of lyrical melody in favour of scalar passages. The kind of Mickey-Mousing taking place also differs during chases. Whereas the 'dominant organizing principle' of the earlier peaceful scenes is 'close' Mickey-Mousing - synchronized to each beat of the music - the chase is synchronized to 'larger musical units: scale passages or other motives that can extend over several beats or over bar lines.'²³⁶

It would be possible to adapt Jacobs's study with reference to Bradley's score for *Little Runaway*. Many of the techniques she identifies have direct examples in Bradley's score. But Bradley also used contrasts that are not evident in the Disney cartoons, most prominently the difference between the predictability of identifiable melodies and the unfamiliarity of the quasi-atonal idiom. Many of the melodies Bradley used are famous enough to be known to audiences, and many that are less famous nevertheless follow the expectations promoted by their genre. The creation and subsequent fulfilment or frustration of expectations is of key importance in the study of comic timing, and it is this

²³⁶ Jacobs, p. 81.

relatively unexplored aspect of comedy which an analysis of musical pacing can elucidate. Rather than simply extending Jacobs's study, I will reframe the discussion in light of this issue.

While comic timing is generally accepted by audiences as important to the success of comedy, particularly in reference to the performance of well-known verbal jokes, the intricacies of comic timing have largely escaped close scholarly attention until recently. My investigation has discovered only a small body of research into the timing of verbal humour as used in the routines of professional stand-up comedians and in narrative jokes recounted in social contexts, as well as one highly suggestive examination of literary timing in the novels of Charles Dickens. The cartoon presents an opportunity to examine timing in a medium where every detail was planned to the millisecond. Meanwhile, there is a modest group of texts - including studies of film music and of pure music - which examine the ways in which music creates audience expectations, and the effects that are subsequently produced when those expectations are thwarted or fulfilled. By examining comic timing in conjunction with the mechanisms of musical unfolding, I will explore the degree to which the comedy in *Tom and Jerry* relies upon the music for its success.

ii. Bar Sheets

The temporal unfolding of an MGM cartoon was established at the very beginning of the planning phase. As was explained in the previous chapters, the planning tools common to all the directors at MGM were the exposure sheet and the bar sheet. While Avery preferred to begin with the exposure sheet, the other MGM directors timed their cartoons on the bar sheet first.

Hanna, who timed all the *Tom and Jerry* cartoons, described himself in his autobiography as having a 'musical background'. While he was at school, he took piano and saxophone lessons and, at some point, lessons in 'piano composition'.²³⁷ While he never claimed to be a 'composer', he was occasionally called upon to write songs for Harman and Ising's early *Looney Tunes* and *Merrie Melodies* cartoons and, as I mentioned in Chapter One, he considered his musicality to be essential to the directorial task of timing.²³⁸ No

²³⁷ Hanna and Ito, p. 15.

²³⁸ Hanna and Ito, p. 22-23. The cartoons in the *Looney Tunes* and *Merrie Melodies* series were contracted out to Harman and Ising by Leon Schlesinger, who sold them to Warner Bros.. After Harman and Ising fell out with Schlesinger, he set up his own cartoon studio and kept the series names. They later became

doubt his musicality aided his understanding of how to time movements to a musical beat. Timing a cartoon on the bar sheet was one of the first directorial tasks with which Hanna was entrusted when he began working for Harman and Ising. The early *Tom and Jerry* cartoons display a tendency to remain at the same tempo and time signature for long periods, with actions unfolding in eight-bar phrases, creating a pervasive sense of somewhat artificial regularity that often becomes monotonous. But in the later cartoons the phrase lengths become much more flexible, with actions unfolding over irregular groups of phrases of various lengths, including five- and three-bar phrases. The increased flexibility could well be the result of Avery's influence, which both Hanna and Barbera describe as being profound. Hanna deliberately and meticulously copied Avery's work in order to improve his timing:

Whenever time permitted, I would take the opportunity to run one of Avery's latest cartoons and study it on the movieola, frame by frame, in order to hone my own skills in timing.²³⁹

Hanna's understanding of timing can therefore be described as a combination of musically metrical, or hypermetrical, phrases and temporally freer moments copied from Avery.

The resulting style is a cartoon where some actions follow a predictable musical beat, while others unfold unpredictably. The music is inevitably implicated in the aggregate audiovisual effect, because even if Hanna were to time an action to occur over eight bars, Bradley could have chosen to accompany it with shorter unrelated phrases that had no consistent hypermetrical structure. But there are many instances in the *Tom and Jerry* cartoons where action and music unfold together in eight-bar phrases, which creates quite a different effect from those scenes where the visual and musical gestures seem to unfold independently of metre.

While scholars have tended to focus on the originality of Bradley's personal contribution to cartoon composition, the effect produced by his employment of more predictable musical idioms has been comparatively overlooked. Bradley's own emphasis on avant-garde techniques, and his determination to portray the cartoon as a site for potential artistic

famous, under directors such as Avery and Chuck Jones, for their violent, slapstick comedy and irrepressible characters such as Bugs Bunny and Daffy Duck. However, the cartoons produced by Harman and Ising were much closer to their preferred aesthetic of slower-paced, musical whimsies, as outlined in Chapter 1.

²³⁹ Hanna and Ito, p. 60. Barbera said, 'his irreverence, daring, timing, headlong pacing, and total originality certainly inspired us in what we did with Tom and Jerry.' Barbera, p. 83.

development, was influential in shaping the early scholastic impression of his work. For example, a short biography printed in 1944 states: 'He is interested in the application of *modern music* to all pictures, and in original as opposed to adapted scores at all times.'²⁴⁰ Articles in which Bradley was interviewed, such as John H Winge's 'Cartoons and Modern Music', tended to focus on his uses of modernist techniques.²⁴¹

One particularly influential example of early Bradley scholarship is Dahl's 1949 article, because it was used as the basis for Roy M Prendergast's chapter on cartoon music in *Film Music: A Neglected Art*. Dahl's examples, which were reprinted in Prendergast, were entirely made up of original phrases, including several of Bradley's twelve-tone gestures. As far as timing was concerned, Dahl asserted the coincidence of actions and musical cadences was a feature of 'old cartoons' in contrast to Bradley's newer techniques. His description of 'old cartoons' also reveals a prejudicial assumption that most animators had little or no musical knowledge:

The music was rhythmically defined, symmetrically constructed in eight bar phrases, somewhat on the order of a dance tune [...]. The cartoons presented in essence a kind of humorous 'choreography' to catchy music. This analogy can even be carried into details: just as the dancer reserves his more spectacular tricks for the cadences at the end of musical phrases so the cartoonist, probably out of instinct, achieved some of his funniest effects by placing outstanding action (be it the bounce of a ball or the impact of a pie in the face) on the same cadential accents with which in popular music every eighth measure ends.²⁴²

There is a strong hint of disparagement in the tone of this description. Dahl seems to assume that any synchronization effect would be achieved by accident on the part of the director, 'out of instinct' rather than skill. He seems to imply that metrical timing is too simple a technique to be worthy of praise, and that it should be consigned to the past. By contrast, Dahl considers the introduction of less strict metrical adherence to be an improvement in newer cartoons:

This 'cadence plus stylized action' has been changed in most of the newer cartoons to just the opposite approach: the action is determined purely from the story angle and developed independently of musical considerations.²⁴³

²⁴⁰ Bradley, 'Music in Cartoons' (p. 120). Emphasis in original.

²⁴¹ Winge, (p. 136).

²⁴² Dahl, (p. 3).

²⁴³ Dahl, (p. 3).

Here Dahl blatantly misstates, and grossly simplifies, what was in fact a far more interesting interdisciplinary interaction; Bradley would not have been able to determine any kind of musical confluence with the images had Hanna not timed it sympathetically. The collaboration between director and composer, including the degree of musical understanding on the director's part, is not given sufficient acknowledgement.²⁴⁴

In this same article, Dahl also emphasises Bradley's originality, which he sees as more important than established methods of cartoon accompaniment. He seems at pains to portray the cartoon as a potentially progressive art form, one that could be a fertile ground for developing both animation and music, but one that must abandon its clichéd past in order to do so. And he portrays Bradley as struggling to innovate the form away from old habits. His bias is best revealed in his description of the 'restrictions and hazards' Bradley faced when composing:

[T]he constant preoccupation with a metronomic beat from which the composer, at least subconsciously, cannot escape, tends to impart a certain rhythmic squareness to his phrases and it takes much conscious effort on his part to overcome this. Tied down, as he is by metronome and timing sheet it is difficult for him to write music that has flow and over-all continuity and that is written *across* the bar lines rather than shackled by them. But if, on the one hand, he has to fight the constraining influence of the squarely regular time unit he has to try, on the other hand, to create musical *symmetry* where the cartoon lacks it.²⁴⁵

Dahl clearly does not consider that 'rhythmic squareness' might have an inherent aesthetic practicality or value in some contexts, or that the cartoon might be at its best when comprised of both innovative and established methods. His implied insistence that Bradley's music is worthwhile only insofar as it is original is typical of the way the subject has continued to be viewed.

More recently, Goldmark's chapter on Bradley contrasts him to Stalling, who famously made free use of a vast array of quotations whenever feasible. He asserts that Bradley 'wanted to make the melodic lines themselves contrapuntally valid and interesting', and also suggests that Bradley avoided accompanying scenes with pre-existing melodies:

²⁴⁴ Exactly what form the collaboration between Bradley and Hanna took is not clear. As I mentioned in Chapter One, the practice at the Disney studio was to have the director and composer work as a team when devising and timing the cartoon, hence the office where they worked being called the 'director's music room'. Hanna's own description of timing implies less of an input from Bradley – indeed, Hanna barely mentioned the composer in his autobiography – but he does emphasise his own musical understanding as a necessary skill. See Jacobs p. 62; Hanna and Ito, p. 23.

²⁴⁵ Dahl, (p. 5). Emphasis in original.

He also strove to create a compelling relationship between the music and the image, in order to avoid rudimentary mickey- (or Jerry-) mousing. To be sure, mickey-mousing in its literal sense, the synchronization of sound and image, appears often in Bradley's work. Though he resisted the limitations of synchronization by trying, whenever possible, to write the music *before* he saw the visuals, we know that he was rarely able to do so. However, he could escape at least the appearance of mickey-mousing by refusing to use songs with straightforward rhythmic pulses. For example, an animated figure walking to the tempo of a standard pop song led to double accents on footfalls through both a visual and an aural representation of a character's movements to a constant beat - exactly the kind of synchronicity Bradley wanted to avoid.²⁴⁶

It is true that Bradley's original music is important to the overall effect of the cartoon and that he did innovate cartoon scoring practices including utilizing various kinds of Mickey-Mousing. But there are many instances of 'songs with straightforward rhythmic pulses', and indeed, this seems to have been a defining characteristic of the Hollywood sound cartoon. To consider the functions of musical innovation or of rhythmic regularity as independent of the expressive contexts for which they were designed can be described as a characteristically misleading outgrowth of certain unexamined assumptions of modernist historiography.

Jacobs has observed a similar historiographical tendency to dismiss metrical synchronization in early Disney cartoons as overly simplistic when compared to later, more nuanced audiovisual alignments. Her analysis of *Hells Bells* demonstrates that, even with a rigid alignment of musical metre and visual action, various nuanced effects were created in these early cartoons. The depicted 'King Devil' and his minions dance so that their steps are variously on stronger or weaker beats, with the resulting syncopation adding interest to the choreography.²⁴⁷ Meanwhile, stronger beats are used to highlight more important actions in the drama. Far from being a necessary evil, Jacobs reveals strictly metrical timing to be a defining characteristic of earlier sound cartoons - a characteristic that 'represented a surprising innovation for filmmakers, musicians and audiences in the 1920s who had been accustomed to the looser and more intermittent forms of matching that could be achieved with the live accompaniment of silent films.'²⁴⁸

²⁴⁶ Goldmark, *Tunes for 'Toons*, p. 64.

²⁴⁷ Jacobs, pp. 69-70.

²⁴⁸ Jacobs, p. 65.

An examination of all of Bradley's techniques in the immediate audiovisual context, and the wider context of the unfolding narrative, is necessary if we are to gain an understanding of how MGM's cartoons were timed musically.

iii. Definitions of Comic Timing

Comic timing has been studied from several different angles and with reference to many different media: linguistic and narrative jokes in social contexts, literary humour, professional stand-up comedy and, to a lesser extent, film and television comedy. The medium of the cartoons offers a unique opportunity to shed light on some unrecognized or unexplained aspects of the theories of comic timing, due to the distinct way timing was controlled.

One drawback routinely voiced at the start of most recent studies of comic timing concerns the broadness of the notion itself, which seems to encompass a multitude of aspects or techniques of performance.²⁴⁹ Among these are speaking at a speed that will make the joke intelligible to an audience, repeating information in order to ensure comprehension, inserting a pause before the punch line (or simply 'punch' in physical comedy) in order to build tension, and waiting for the audience to finish laughing before trying to speak again.²⁵⁰ One of the chief difficulties seems to be a lack of further terms to distinguish between these different kinds of timing. Perhaps music offers a useful analogy: it is easy to imagine how difficult it would be to discuss music if tempo, metre, rhythm, harmonic rhythm, fermatas and caesuras were all encompassed by one term. It is beyond the scope of this study to provide a universally applicable solution, but the ubiquity of music in the cartoon means it is possible to borrow musical terminology to an extent.

As far as the purpose of timing is concerned, there seem to be two broad categories. The first, which arises to varying degrees throughout the literature, is manipulation of the audience's understanding and expectation. Speaking clearly, repeating information and inserting pauses during the joke's narrative are all intended to increase audience understanding, while pauses at dramatic

²⁴⁹ C.f. Salvatore Attardo and Lucy Pickering, 'Timing in the Performance of Jokes', *Humor - International Journal of Humor Research*, 24 (2011), 233–250 <doi:10.1515/HUMR.2011.015>, (p. 234); Oliver Double, *Getting The Joke: The Inner Workings of Stand-Up Comedy* (London: Methuen, 2005), p. 201; Malcolm Andrews, *Dickensian Laughter: Essays on Dickens and Humour* (Oxford: Oxford University Press, 2013) p. 50.

²⁵⁰ Attardo and Pickering, (p. 234).

moments might also manipulate the audience into a state of heightened expectation. The second purpose of timing might be described, more generally, as a range of ways to enhance the acted performance, or the communication of the character's understanding and expectation. This is necessarily limited to performances delivered 'in character' - films, plays, literature, and some forms of stand-up - as opposed to linguistic comedy such as 'knock-knock' jokes. In acted performances, the character's thoughts may be portrayed as clearly by the manner of their delivery as by their words. Both of these types of timing are important to the cartoon.

One of the notions upon which most studies seem to agree is that timing cannot 'be measured in seconds on the clock'.²⁵¹ According to Neal Norrick, who made one of the first empirical studies of timing in social settings, this is because 'spoken and semantic features of the build-up and the punch-line influence our perception of timing, as do the teller's style of delivery and audience response'.²⁵² Oliver Double describes the absurd notion that an audience might have of a stand-up comedian's understanding of timing:

People seem to think that the masterful control and presence that a good comic exudes onstage is created by standing there concentrating on getting the timing right. As if all comedians have a little joke-clock inside their heads, and all the time they're onstage it's ticking away: one two three, build-up two three four and punchline, pause for laughs two three, milk it a bit more two three four five six seven eight, start next joke two three...²⁵³

By contrast, Double asserts that 'the skill is more about communication than the simple passing of seconds.'²⁵⁴

According to Double, the communication of the joke requires the teller to be responsive to the audience. He further claims that Tommy Cooper's skill with timing was at least in part his 'having the daring to wait and see if they'll laugh, to see if he's got his idea across.'²⁵⁵ Norrick goes so far as to say that comic timing 'requires interactional definition, since the successful joke performance depends on the audience.'²⁵⁶ Several of the specific timing strategies, such as 'hesitation, formulaicity and repetition' Norrick describes as 'serving as a guide

²⁵¹ Neal R. Norrick, 'On the Conversational Performance of Narrative Jokes: Toward an Account of Timing', *Humor-International Journal of Humor Research*, 14 (2001), 255–274, (p. 256).

²⁵² Norrick, 'Conversational Performance of Narrative Jokes', (p. 256).

²⁵³ Oliver Double, *Stand-Up: On Being a Comedian* (London: Random House, 1997), p. 251.

²⁵⁴ Double, *Stand-Up*, p. 251.

²⁵⁵ Double, *Stand-Up*, p. 251.

²⁵⁶ Norrick, 'Conversational Performance of Narrative Jokes', (p. 256).

for listeners'. But as well as making sure the audience understand the joke as it unfolds, timing is also described as building up or subverting the audience expectation. Salvatore Attardo and Lucy Pickering began a recent article with five different sources claiming that a pause between the build-up and punch line of a joke was essential to prepare the audience and increase their reaction to the punch line.²⁵⁷ Part of the skill of the comedian is the ability to tell at what moment the audience will be best prepared to receive the punch line. One assertion that is quoted in several different studies is that 'comic timing happens in the moment, in the feedback loop between [the comedian] and each individual audience.'²⁵⁸

Of course, this definition presents a possible problem for understanding cartoon timing, because the cartoon cannot respond to its audience. In a fixed medium, the audience's response must be anticipated before the performance begins. On top of this, the cartoon's timing had to be meticulous, with every movement planned before being animated to ensure synchronization with the soundtrack. The cartoon therefore presents perhaps a unique forum in which to examine comic timing that really was 'measured in seconds on the clock', but at the same time, it poses a challenge to any straightforward impression of the interaction between the originator of the jokes and the audience.

One pertinent study that deals with a similar lack of audience interaction is Malcolm Andrews's chapter on comic timing in his book on humour in Dickens:

[W]e are examining the literary performer who delivers comic material to an unseen readership, not to a listening and watching audience. What for the stand-up comic is a three-way dynamic [between performer, material and audience], where each night involves the retuning of that relationship, for the writer becomes a two-way process, writer and material, with the readership only imagined, and, at the point of composition, hardly nuancing the 'delivery' in any active way.²⁵⁹

The same can be said of Hanna and Barbera as they planned their cartoons: the communication between the animator and audience is unidirectional. The

²⁵⁷ Attardo and Pickering then presented empirical data showing many joke performers do not in fact pause before the punch line. They also debunked the theory that punch lines are delivered at a different rate to the other phrases in the joke. But a separate study conducted in the same year came to the opposite conclusion that these pauses are indeed a feature of social joke-telling. Attardo and Pickering, (p. 234). C. f. Argiris Archakis and Maria Giakoumelou, 'The Prosodic Framing of Humour in Conversational Narratives: Evidence from Greek Data', *Journal of Greek Linguistics*, 10 (2010), 187–212.

²⁵⁸ Greg Dean, *Step by Step to Standup Comedy* (Portsmouth, NH: Heinemann, 2000), p. 127, quoted in Attardo and Pickering, (p. 234), and in Andrews, p. 51.

²⁵⁹ Andrews, p. 52.

animator can interact with an imagined audience, but ultimately they have to deliver one performance for all audiences.

Within the cartoon, there are several areas worth exploring with the aim of illuminating the relationship between music and comic timing. For one thing, music is capable of guiding the audience by conveying a sense of tempo and pacing, allowing the action to unfold in understandable phrases that have an identifiable beginning, middle and end. It can aid the task of communicating the narrative, which is even more essential since the cartoon audience, unlike the listener in a social situation, cannot interrupt if they fail to understand something. The underlying tempo of the music can dictate the timing of an action, or an action can come surprisingly early or late. The music is capable of providing a standard gauge for expected tempo that is present at every performance, no matter the type of screen or the size of audience. In this way it may act as a sort of intermediary between the artists and their audience, communicating across the distance and acting as a guide for creating and comprehending the unfolding narrative.

In addition to compensating for the lack of interaction between audience and animator, the music can communicate what the characters themselves understand about their situations, and expect about what is soon to unfold. Since slapstick comedy often relies on a character's shock or annoyance at an unexpected impact, their false expectation has to be set up carefully. The music efficiently communicates what the character expects to transpire, which is essential for the performance of the joke.

iv. Character Timing

In his book on stand-up comedy, Double considers acting to be an essential aspect of timing. Discussing the timing of stand-up comedian Bob Newhart he states:

there are fine nuances of tone, pace and punctuation which not only bring the situations he evokes to life, but also show the character's reactions to these situations without spelling them out in words.²⁶⁰

Double continues by describing how Newhart delivers the line, 'Oh, hi!' in the character of a policeman sent to talk to a man attempting suicide:

²⁶⁰ Double, *Getting the Joke*, p. 204.

What makes these two simple, innocuous words so funny is the way he says them. He manages to fill them with the forced brightness of fake surprise. It suggests somebody trying to pretend they have just casually walked out on to the ledge of a skyscraper to enjoy a cigarette, and being pleasantly surprised to find somebody else up there with him.²⁶¹

Of course, one of the obstacles for the ‘acting’ in *Tom and Jerry* is the lack of dialogue. Visually, everything must be communicated with facial expressions and body language, reinforced by the occasional utterance or, more often, shriek.²⁶² But an even more basic obstacle for any cartoon is the primary need to convey that the character can think at all. An audience cannot begin to believe a portrayal of ‘forced brightness of fake surprise’ unless they first assume the character is capable of thought. This was a concern from the very early days of animation, and is still a concern even in modern cartoons.

Tom Porter and Galyn Susman, who were the visual effects supervisor and lighting supervisor respectively on the Pixar film *Toy Story* (dir. John Lasseter, 1995), describe character psychology as a universal concern:

‘lifelike’ does not mean ‘has movement’; lifelike means ‘has a brain.’ The underlying notion of Pixar and Disney animation is that action is driven by the character’s cognitive processes - that it reflects intelligence, personality and emotion.²⁶³

One of the earliest breakthroughs in portraying psychology was giving the character body language that would signal intention:

Cartoons have long portrayed exaggerated anticipation of any movement. Hands always reach far up before reaching down into a pocket.²⁶⁴

Animator Dick Huemer clarified the technique using the same example:

When a man put his hand in his pocket, he pulled his hand back first, sort of aimed it for his pocket and then thrust in. Walt [Disney] called it ‘anticipation’.²⁶⁵

Disney animators Frank Thomas and Ollie Johnston included the technique in their instructive handbook:

²⁶¹ Double, *Getting the Joke*, pp. 204-205.

²⁶² The common belief that Tom and Jerry never speak is not exactly true. Their dialogue was rare, but even in *Puss Gets the Boot* Jerry recites the prayer, ‘If I should die before I wake’. Tom also occasionally spoke, including in *The Million Dollar Cat* (1944) and *The Mouse Comes to Dinner* (1945), and he delivers the ominous line ‘Don’t you believe it!’ in both *Mouse Trouble* (1944) and *The Missing Mouse* (1951) in a reference to the title and catchphrase of a popular radio programme of the time, starring Toby Reed.

²⁶³ Tom Porter and Galyn Susman, ‘Creating Lifelike Characters in Pixar Movies’, *Communications of the ACM*, 43 (2000), 25–29 (p. 27).

²⁶⁴ Porter and Susman, (p. 28).

²⁶⁵ Quoted in Barrier, *Hollywood Cartoons*, p. 132.

Before Mickey reaches to grab an object, he first raises his arms as he stares at the article, broadcasting the fact that he is going to do something with that particular object.²⁶⁶

These gestures are essential to conveying an air of intention, and therefore to creating the impression that the character is thinking. Psychological nuances, like those suggested in the performance of comedian Newhart, are essential to the comic timing of a character's performance, whether acted or animated.

Another important tool in creating a character's inner life is the music, because it can suggest various emotional states. As Goldmark describes,

Bradley provides us a musical path to their thoughts. His cues give us a brief glimpse into the character's interior state, usually at moments of crisis, whether physical (about to be crushed, impaled, eaten, etc.) or mental (afraid of being crushed, impaled, eaten, etc.) - or even at a moment of empathy (do I help my archrival, who is about to be crushed? etc.).²⁶⁷

In these 'moments of crisis', what is crucial for the comic timing (an aspect not considered by Goldmark) is what the character predicts the next few seconds are going to contain. Their thoughts and emotions, and their prediction of the immediate future, are essential to comedy, because humour can be derived from the difference between the characters' apparent understanding of what is happening and what is actually occurring, or between what they expect to happen next and what will actually happen.

It would be tempting to argue that in slapstick comedy the humour is created by the pure act of violence, and perhaps the sheer absurdity of such (often extreme) violence within a civilized or domestic setting. The violent act in itself might provoke laughter, without any consideration of psychology. But the mental state of the one inflicting or receiving the impact is often crucial to the success of the joke. Sometimes a slapstick impact does not even need a character to inflict it, such as when someone collides with an obstacle. Arguably, these accidental slapstick moments are not violence per se, nor are they particularly funny unless the character's mental state is taken into account.

A discussion involving the creators of *Not the Nine O'Clock News* can shed light on the importance of a character's psychology in a slapstick collision. One of their most famous, and shortest, jokes depicts an unknown man walking through a crowded street. When he spots that he is being filmed by the camera,

²⁶⁶ Frank Thomas and Ollie Johnston, *The Illusion of Life: Disney Animation*, 1st Hyperion edn. (New York: Hyperion, 1995), p. 52.

²⁶⁷ Goldmark, *Tunes for 'Toons*, p. 64.

he is distracted by it and waves foolishly before walking straight into a tree. In a comparatively recent interview, the producer John Lloyd described his frustration when the writer Richard Curtis first presented the scripted idea to him, which simply consisted of, ‘Rowan [Atkinson] walks along the street, sees the camera and hits a lamppost’:

I turned over the page and thought, a kind of interesting setup, what’s the joke? [...] You know, I probably got a bit cross, because we were all under such pressure all the time, and then [said], ‘What the hell is this, Richard?’ You know? ‘There’s no joke in it.’²⁶⁸

It was only because Atkinson was so enthusiastic about performing the short sketch that Lloyd allowed them to try filming it. Lloyd goes on to describe his dawning comprehension after having seen the filmed performance:

It’s not about bumping into the tree. It’s about the vanity of looking into the camera, and then you don’t pay attention because you think, ‘Oh look, I’m being filmed’.²⁶⁹

Atkinson had a different understanding of what made the joke funny, but one that was still rooted in psychology:

It was just something that felt funny, a sort of gimpish self-consciousness. [...] You know, the sweet reaction of the self-conscious man who has no performing talent, per se. It’s just, [...] what do you do if you notice someone [filming you]? [...] ‘I’m not sure where to put myself,’ and so inevitably [...] you’re going to hit something eventually.²⁷⁰

Lloyd and Atkinson have slightly different interpretations of what exactly the psychology is behind character’s action, whether he is vain or simply self-conscious. But what is crucial, in terms of timing at least, is the difference between what Atkinson’s character expects to transpire next (he will continue walking) and what actually transpires (he hits the tree). There may be other factors that contribute to the comedy. For example, the audience may be surprised by the collision, or they may anticipate it. Either way, at least one important part of the humour consists in the absurd gap between the character’s expectation and what actually happens.

In *Tom and Jerry*, what communicates a character’s expectation is partly visual: a combination of facial expressions and the narrative setup. But the music also communicates the character’s expectation by providing music that

²⁶⁸ ‘Not Again: Not the Nine O’Clock News’ dir. by Andy Humphries, BBC Two, 28 December 2009, rebroadcast 3 August 2013.

²⁶⁹ ‘Not Again: Not the Nine O’Clock News’.

²⁷⁰ ‘Not Again: Not the Nine O’Clock News’.

seems to have a definite future. This phenomenon has been observed by Goldmark in the cartoon *Solid Serenade* (1946):

A rapid, syncopated pattern in the strings characterizes Tom's chasing Jerry across the yard. Descending a step each time it repeats, the melody moves us forward to an eventual finish line, or, as Chion would say, *vectorizes* the shot by directing it toward an inevitable goal, enabling the audience to anticipate the end of the chase before it actually happens.²⁷¹

Before discussing Chion's 'vectorization' in more detail, it may help to entertain the idea that as well as guiding the audience, the forward-moving music portrays Tom's expectations of what will happen. There are two examples from *Little Runaway* prove to be particularly convenient illustrative cases because they are obviously prepared by the narration.

In the first of these examples, we see the escaped seal running away from Tom across a roof. When he reaches the edge of it, he plucks the telegraph wire from the house and uses it to swing across, past the first telegraph pole, and up on top of the next one. Tom reaches the edge of the house, grabs the other wire, and repeats the seal's manoeuvre, only to smack into the first telegraph pole. Tom's expectation (that his swing will repeat the seal's exactly) is communicated clearly enough by the narrative setup. It is reinforced only slightly by Tom's determined expression, but much more by the music, because Bradley chose to use the same melodic material to accompany the actions of both the seal and Tom.

The music in figure 3.1 can be divided into two parts: the pentatonic skipping figure which accompanies the grabbing of the telegraph wire and jumping, and the ascending scales which accompany the swinging. The second figure could be said to be purely descriptive of the swinging motion, a simple upwards trajectory translated straightforwardly as an ascending scale. But the first figure does not relate clearly or straightforwardly to describe any of the onscreen physical movement. There is no reason why Bradley should not have used different music for the seal's choice of escape and for Tom's decision to follow it. By repeating the melody, it presents the impression that Tom is thinking the same thing as the seal. Tom expects his swing to follow the exact same trajectory as the seal. Bradley does use different orchestration for the two of them: Tom's first figure is pitched a major tenth lower, and the second figure

²⁷¹ Goldmark, *Tunes for 'Toons*, p. 66.

is chromatic from the first, whereas the seal's phrase moves gradually from diatonic to chromatic. But the heavier orchestration of Tom's music reinforces the impression that he himself, along with his intention, is being described. When Tom's swing and the accompanying music is cut off, midway through the bar, we feel as if his intention has also been cut short, very much like Atkinson's character upon collision with the tree. The ascending scalar figure creates the impression that it will continue for longer than it does. Tom's resulting surprise upon feeling the full weight of the telegraph pole squash him (portrayed by two half-diminished seventh chords from the full ensemble) is much better understood because the music also sounds incomplete. Tom's astonishment is further reinforced by a kind of codetta, in which his eyes - the only remaining part of his face - blink stupidly. The movement is given as much expressivity as possible by the accompaniment of the xylophone.

A similar example can be found only moments later (see figure 3.2). After Tom recovers (instantaneously, of course) from being squashed by the telegraph pole, he climbs another one and chases the baby seal along the wires. Jerry helps the baby seal by placing a glass of water underneath another pole for the seal to dive into. Having seen the seal land with a splash and run away, Tom copies the manoeuvre, only to squash improbably into the glass, his feet protruding absurdly. Again, the music for Tom's jump (bars 294-297) closely resembles that of the seal (bars 289-291), portraying his expectation of similar success. And, once again, Tom's surprised eye-blinks are sounded by the xylophone.

The technique of using music to suggest moving forwards is described by Goldmark as 'vectorization'.²⁷² Chion introduced the term in his influential study of sound in film, *Audio-Vision*, to describe the phenomenological difference between silent film and sound film:

sound *vectorizes* or *dramatizes* shots, orienting them towards a future, a goal, and creation of a feeling of imminence and expectation. The shot is going somewhere and it is oriented in time.²⁷³

Chion argues that sound is fundamental to the basic sense that time is moving forward. Purely 'visual phenomena' are 'not marked with a sense of past and future', but the presence of sound indicates that time is passing.²⁷⁴ More

²⁷² Goldmark, *Tunes for 'Toons*, p. 66.

²⁷³ Chion, *Audio-Vision*, pp. 13-14.

²⁷⁴ Chion, *Audio-Vision*, pp. 19-20.

recently, Chion introduced a useful distinction between kinds of ‘vectorization’, and the different impressions of an immediate future that audiovisual media can create. This new somewhat slippery distinction between ‘vectorization’ and ‘temporal vectorization’ is crucial to understanding the different possibilities for audiovisual timing. Chion defines the latter, which is in fact much closer to Goldmark’s usage of ‘vectorization’, in his more recent book, *Film: A Sound Art*:

When a number of sound elements and/or visual elements are superimposed and constituted in a way that allows the spectator to anticipate their crossing, meeting, or collision just ahead. This expectation is then either satisfied or unfulfilled, and the crossing can occur earlier or later than when it was expected. Of course a sound or sound sequence must last long enough to create the expectation. A crescendo or decrescendo, a melody with a distinct arc, an accelerating rhythm, a sentence being spoken that is moving toward an end all create temporal vectorization.²⁷⁵

The distinction adumbrated here may seem quite pedantic at basis, but it is crucial within the context of comic timing. ‘Vectorization’ simply creates the impression that a scene is unfolding through time - an impression Chion believes is lacking in silent film - whereas ‘temporal vectorization’ gives the audience specific clues as to what the future will contain.

There is a further sub-division of ‘temporal vectorization’ not fully considered by either Chion or Goldmark that is crucial to understanding how music functions to time comedy, which depends upon whether the predicted ‘crossing, meeting or collision’ will occur at a particular predestined moment. Chion is happy to group together spoken sentences, gradual changes of volume, and melodic arcs in the same category, but not all these have the same kind of ‘eventual finish line’ (to borrow a formulation from Goldmark).²⁷⁶ The distinction that must be drawn is between a finish line that is predicted to occur at some undefined point in the future, and one that has an exactly predictable temporal location. A gradual crescendo or decrescendo may continue indefinitely; it might be impossible to predict at what moment the volume change will reach its goal. Similarly, a spoken sentence might contain any number of clauses before it concludes. But a distinctive melody, particularly one known to the audience, will indicate a very definite temporal end. Upon hearing the tune commonly dictated as ‘Shave and a haircut, two bits,’ the audience will have no trouble predicting exactly when ‘bits’ will occur. The difference may be

²⁷⁵ Chion, *Film: A Sound Art*, p. 495.

²⁷⁶ Goldmark, *Tunes for Toons*, p. 66.

small, but it is crucial because of the various ways in which audience expectation can be manipulated for the purposes of comedy.

To return to the example just discussed: Tom's swing on the telegraph wire is unexpectedly cut short. The expectation created by the preceding music is that it will continue to unfold in phrases of at least two bars, but Tom's swing is cut short on the second beat of the second bar (bar 261, figure 3.1). By contrast, his dive into the glass of water is accompanied by a musical gesture that sounds perfectly finished - Tom landed when he expected to, if not in the manner he intended.

v. Audience Timing

Another important aspect of timing, one that is discussed more often with reference to stand-up comedy and social joke-telling, arises from the common techniques used to guide the audience and increase their expectation that something funny is about to be said.

One of the simplest examples to describe is when a comedian pauses before delivering a punch-line. In his discussion, Double describes Cooper's famously effective pauses as a way of giving the audience 'time to work out what the joke's going to be'.²⁷⁷ Similarly, Edward Galligan suggests comedian Jack Benny's audiences use the pauses to 'try to anticipate what the climactic line will be, or to put it another way, [...] build a high level of comic tension.'²⁷⁸ Norrick also says that '[j]okes require prefaces, set-ups, build-ups, *tension* and a punch, in that order.'²⁷⁹ He claims that the penultimate line of the joke 'briefly suspends our expectation' before the punch line arrives.²⁸⁰

The slapstick equivalent of this might be what Steve Neale and Frank Krutnik call 'the suspense gag', in which there is 'a tendency [...] for the predictable to become the inevitable. If there is a banana skin around, someone will fall on it.'²⁸¹

²⁷⁷ Double, *Stand-Up*, p. 252.

²⁷⁸ Edward L Galligan, *The Comic Vision in Literature* (Athens, GA: University of Georgia Press, 1984), p. 13.

²⁷⁹ Norrick, 'Conversational Performance of Narrative Jokes', (pp. 271-272) (emphasis altered).

²⁸⁰ Norrick, 'Conversational Performance of Narrative Jokes', (p. 267).

²⁸¹ Steve Neale and Frank Krutnik, *Popular Film and Television Comedy* (New York; London: Routledge, 1990), p. 55.

In a gag involving suspense, [... the pratfall] is delayed while the narration provides the information necessary to generate anticipation, or slowly unfolds the events with which it will culminate.²⁸²

Of course, not all jokes are prepared in this way. Neale and Krutnik continue:

In a gag of pure surprise, on the other hand, where the comic point cannot be foreseen, the event in which it occurs will be presented as rapidly as possible.²⁸³

Verbal jokes also may not laboriously be prepared. The requirements of timing are different depending on whether the audience is supposed to be surprised or to anticipate the culmination of the joke. In the cartoon, the different ways the movement and music were timed could affect whether the audience anticipated the action or were surprised.

As I outlined in Chapter One, the cartoons of Harman and Ising tended to unfold in eight-bar phrases. This seems to have been the standard way to time cartoons, as evidenced by Jacobs's findings. Often, when a gag unfolds it culminates at the cadence of the phrase. Jacobs describes in great detail the intricacies of a gag in *Playful Pluto*, and states that 'the climax of the gag is keyed to this metrical organization of the soundtrack'.²⁸⁴

It appears that Avery was responsible for introducing the main alternative to this standard, metrical timing, which was to have gags surprise the audience by their unexpected arrival:

I found out the eye can register an action in five frames of film. [...]f I wanted something just to barely be seen, five frames was all it needed. What would ruin it would be two or three seconds of film... No, you'd have nothing. Say we had an anvil falling, we would bring it in perhaps four or five frames before the hit, that's all you need - Djuuuuuu...Bam! It's there, and you don't know where in the hell it came from. It makes that gag much funnier.²⁸⁵

Avery, as I have already noted, planned his cartoons on the exposure sheet, with little interest in how it would fit with the musical metre. This often led to the music having to change time signature and tempo, and to the scores being recorded in more cues than those for Harman and Ising. By contrast, Hanna timed everything on the bar sheet, but he found a way to incorporate some of the quicker movements pioneered by Avery. The result is action that unfolds quickly in terms of the number of frames depicting a single movement, but is

²⁸² Neale and Krutnik, p. 57.

²⁸³ Neale and Krutnik, p. 57.

²⁸⁴ Jacobs, p. 95.

²⁸⁵ Avery, quoted in Adamson, p. 188.

still synchronized to the musical metre. One might expect this would make the action in *Tom and Jerry* less surprising for the audience, but Hanna found a way around that by placing surprise gags on weaker beats of the bar. Tom's collision with the telegraph pole falls on the second beat of a four-beat bar, and the pole finally squashes him on the fourth beat of the bar after. The action unfolds musically, but not as predictably as an event on the downbeat, such as the moment when Tom squashes into the glass.

Jacobs has observed a similar moment in the Disney cartoon *Three Little Pigs*, which perhaps suggests that the placing moments of surprise on weaker beats was a widely established Hollywood practice. The pigs, who have been dancing and singing unaware of the wolf's presence, finally discover they are in danger on the fourth beat of a four-beat bar:

The action is parsed according to the beats so that the film builds to the discovery across the course of the bar, with the actual sighting of the wolf taking place on beat 4 and on the word "wolf".²⁸⁶

Within the context of established metrical regularity, we might well accept that an action on the downbeat of the bar will almost always come across as more predictable than an action that happens on a weaker beat, or off the beat. For further support on this point, it is illuminating to refer to the work on musical expectation by the musicologist David Huron. Huron has made an extensive study of musical expectation from the standpoint of music psychology and cognition, in which he collates information from a wide range of experimental studies involving listeners. One of his most pertinent assertions is that:

When listening to sounds, we do not pay attention equally at all moments. Instead, auditory attention is directed at particular moments in time. Specifically, attention is choreographed to coincide with the most likely moments of stimulus onsets.²⁸⁷

Huron includes evidence from statistical analyses which show that musical events are more likely to occur on the downbeat of the bar, followed by the third beat, with the fourth and second beats least likely. This holds true for Puerto Rican children's songs and for Haydn string quartets.²⁸⁸ Huron suggests that placing events on the downbeat aids listener comprehension. He refers to a

²⁸⁶ Jacobs, p. 78.

²⁸⁷ David Huron, *Sweet Anticipation: Music and the Psychology of Expectation* (Cambridge, MA: The MIT Press, 2006), p. 176. Huron's book revisited the earlier theories of Leonard Meyer, regarding musical expectation, in light of advances in music psychology and statistical analysis. See Leonard Meyer, *Emotion and Meaning in Music* (Chicago: University of Chicago Press, 1956).

²⁸⁸ Huron, pp. 178-180.

study where listeners were asked to identify the last note in a string of pitches by stating whether it was higher, lower or equal in pitch to the first note.²⁸⁹ The subjects' responses were significantly faster and more accurate if the last note arrived on the downbeat than if it were earlier or later than expected. Huron attributes this to the audience's increased attention to the downbeat: people find it easier to comprehend something that happens at the moment they were paying most attention. This would suggest that the gags in *Tom and Jerry* are not only less surprising than those in Avery's cartoons, but they are also easier to grasp. Avery's remark would appear to corroborate this impression: 'Bam! It's there, and you don't know where the hell it came from.'

Avery would appear to generate more surprise for the audience than Hanna, but this does not mean *Tom and Jerry* is less funny. It is simply a different style of comedy. Avery's narratives were surprising in other ways: Avery's world was one where animals talked, sometimes directly to the audience, and had the unnatural ability to escape and redefine the bounds of the narrated world. By contrast, Jerry and Tom were domestic animals whose abilities, though beyond any real cat or mouse, were far more modest. The humour of Hanna and Barbera was always contained within the narrated world and, apart from the occasional moment of direct address, the bounds of that world were stably upheld. The decision to rarely have a slapstick impact occurring off the beat transferred an impression of there being some control to the onscreen antics. Order may be in the process of breaking down, but it is not entirely absent.

Still, while Hanna generally timed his action to coincide with the metre, and the humour of *Tom and Jerry* tended to be suspenseful gags, that is not to say there were never any surprises. One notable instance in *Little Runaway* happens soon after Tom hears the radio broadcast notifying people of the reward (figure 3.3). He rushes at the seal and manages to catch him straight away, only to be convinced by Jerry to place the seal in a sack in Jerry's hands. After Jerry runs off with the seal, Tom saunters away, relaxed, only to realize his mistake and - in a rare moment of quasi-modernist visual design - make a horrified grimace at the camera. The humour is intensified by the suspense as we wait for Tom to realize his mistake, and also by the extremity of Tom's

²⁸⁹ Mari Jones, Heather Moynihan, Noah MacKenzie, and Jennifer Puente, 'Temporal Aspects of Stimulus-Driven Attending in Dynamic Arrays' *Psychological Science* 13 (2002) 313-319, quoted in Huron, pp. 176-177.

reaction when he does realize it. It would be better, therefore, for Tom's horrified grimace to arrive at an unexpected moment, so that it surprises the audience and sounds disjointed from Tom's previous relaxed frame of mind.

In this instance, it would seem that Bradley is solely responsible for creating a nuanced timing that surprises the audience and emphasises Tom's shock. As usual, Hanna placed Tom's reaction on the second beat of the 2/2 bar (bar 231 of figure 3.3), which, according to precedent, is not a particularly unexpected position. But Bradley scored it in such a way that the preceding two bars disrupt the underlying metre. The scurrying triplet figure that accompanies Jerry out of sight in bar 229 helps to distance the next gesture from the more rhythmically assertive music in bars 225-226. And the rhythm of the melody that accompanies Tom's saunter is deliberately set against the metre of bar 230. Not only is it in crotchet triplets, but they are phrased in rising pairs, giving the impression that the tempo and metre have changed. Each pair of crotchet triplets appears to consist of a single beat, meaning that when the shock arrives in bar 231 it is between the first and second beats of the apparent metre. It would appear that this inventive bit of timing was entirely down to Bradley, since the crotchet triplets are not closely synchronized to any onscreen movements.

In timing slapstick impacts on the beat, Hanna may have sacrificed one tool for generating surprise. But in exchange he gained another, for the ongoing metre gives the humour a background sense of inevitability against which all particular moments can stand out. Like the banana skin mentioned by Neale and Krutnik, the constant music gives the audience a sense of being able to predict the action. The difference is that the banana skin gives the audience clues about what will happen, whereas the metrical accompaniment gives a definite sense of when an impact is likely to occur. This tool is even more important in generating audience suspense or tension.

The difference between a surprise and a suspense gag is that in the latter the audience know something is going to happen. In spoken comedy, the difference may be between a one-liner, which requires no set-up, and a longer narrative joke. In the latter case, the comedic effect will often be quite laboriously prepared. In his account of timing, Double includes an interview with comedian Harry Hill, who describes the importance of setting up even a two line joke:

I had this gag which was, “You know the white plastic doll’s house furniture that you get free with the home-delivery pizzas? [...] I keep getting the table.”²⁹⁰

Hill explains that he tries to deliver the set-up as clearly as possible:

There’s a lot of things in there, contained in there. That’s the minimum amount of words you can use to say this gag. [...] So what [you] do is, [...] you say it a few times. And then they’re really keen to know what the answer is. You know, so you can do the next bit, and you know they’re all sort of going to be on top of it, pretty much.²⁹¹

Hill’s timing technique depends upon being able to gauge the audience, to sense when they are ready for the punch-line. It is this kind of interaction, of course, that is out of the question for cartoons. Perhaps unsurprisingly, Norrick’s work on joke-telling in social contexts focuses even more strongly on interaction between the teller and the listener. In a study focusing on the placement of audience laughter, Norrick suggests that listener laughter acts ‘as supportive of a joke performance comprehended as an opportunity for laughter and fostering rapport rather than primarily as an understanding test focused on the final punch line’. In other words, the joke-teller listens to the reactions of the audience and is encouraged to continue by their display of enjoyment.

Ultimately, ‘[p]articipant laughter contributes to the overall trajectory of the joke performance, the ebb and flow of information highlighted by rhythms of hesitation, repetition, and fluent passages to co-determine timing.’²⁹²

I am intrigued by the musicality of Norrick’s chosen terms: ebb and flow, rhythm, repetition, hesitation and fluency are all terms that might describe the temporal unfolding of music. And although Norrick considers these to be a product of interaction between performer and audience, they can all exist in a musical context without that interaction. Indeed, further evidence for a kind of audience preparation that is without ‘live’ personal interaction can be found in Andrews’s rich account of the timing in the works of Dickens. He describes the monologues from *David Copperfield* given by the character Mr Micawber, who tends to begin with a statement delivered in overly elaborate language before interrupting himself bathetically with a simpler description. For example,

²⁹⁰ Double, *Getting the Joke*, p. 206.

²⁹¹ Double, *Getting the Joke*, pp. 206-207.

²⁹² Neal R. Norrick, 'Laughter before the Punch Line during the Performance of Narrative Jokes in Conversation', *Text & Talk - An Interdisciplinary Journal of Language, Discourse & Communication Studies*, 30 (2010), 75–95 <doi:10.1515/TEXT.2010.004>, (p. 91).

‘The twins no longer derive their sustenance from Nature’s founts - in short,’ said Mr. Micawber, in one of his bursts of confidence, ‘they are weaned...’²⁹³

The maximum impact on the audience from the bathetic switch of register is achieved, according to Andrews, by timing:

There are seldom more than half a dozen lines of orotund speech before Micawber abruptly checks his flow, just enough to establish the impressive movement of his swelling periods - his signature rhythm. [...] His legato swell hits the breakwater just as it seems to be gathering full momentum, and just at the point where the reader has fully tuned into its stately music, because that is precisely when the comic jolt is best positioned.²⁹⁴

The timing of Micawber’s monologues does not depend directly on any live ‘interaction’ with the reader. Instead of interacting with the audience, the ‘flow’ of Micawber’s verbose rambling interacts with his shorter explanations. Although Dickens is unable to gauge whether every reader will be ready for the punch line at the right moment, the joke nevertheless prepares the reader as well as possible. Arguably, the cartoon uses very similar techniques when creating comic timing. One can see a similarity between the expectation created by Micawber’s wordiness - that the sentence will continue in the same manner - and Tom’s swing towards the pole. One might even say that Micawber’s speech is temporally vectorized towards some point further in the future, and is interrupted by his ‘- in short,’ in much the same way Tom’s swing is interrupted by the pole.

Music provides the terminology for Andrews, just as it does for Norrick. Micawber’s ‘flow’ has a ‘signature rhythm’ of a ‘legato swell’. In attempting to describe something that requires nuanced and subtle temporal unfolding, both Norrick and Andrews have turned to music, which is arguably the quintessential example of an art form equipped to do so.

As well as preparing the audience for the punch line, part of the purpose of comic timing is to delineate the narrative from the punch line. Norrick does identify a timing strategy whereby the punch line is clearly delineated from the preceding narrative:

²⁹³ Charles Dickens, *David Copperfield*, quoted in Andrews, p. 65.

²⁹⁴ Andrews, p. 66.

The punch-lines themselves typically coincide with a semantic perspective switch in the joke text, which tells further foreground with a voice shift and a rapid, fluent delivery.²⁹⁵

The purpose of delineating the two is, in Norrick's estimation, to ensure the punch line 'intrudes itself with added force'. Exactly why this effect occurs is somewhat open to debate. Norrick suggests that the perspective switch 'complicates the processing task facing the audience', which presumably makes the audience pay more attention.²⁹⁶ However, Huron's explanation of listener attentiveness gives a more pertinent theory of why a clear distinction between the narrative and the punch line might be beneficial.

Preparing for an event typically involves both motor preparation (arousal) and perceptual preparation (attention). The goal is to match arousal and attention to the expected outcome and to synchronize the appropriate arousal and attention levels so that they are reached just in time for the onset of the event. [...] If we want to conserve the maximum amount of energy, then we ought to wait the last possible moment before increasing attention or arousal.²⁹⁷

It is more tiring for the audience to keep their attention at a heightened state for any length of time. It seems plausible that Norrick's observation about the distinction between the narrative and the punch line can be accounted for as a sort of rallying point for attention: the perspective switch, combined with the change in delivery style, signals to the audience to pay special attention because the punch line is imminent. If the audience do not know which line is going to be the last, their attention might waver and they may miss the punch line. A clear delineation means the audience can remain relatively relaxed while absorbing the information from the narrative, and increase their attention when they are given the clues that the punch line is arriving.

The cartoon uses music to create a similar effect. Music that unfolds in long phrases has the effect of suspending their attention during the middle of the phrase. As if the music were saying, 'wait for it', the audience know that, whatever may be unfolding, something further is likely to occur at the cadence. A good example of this falls directly between Tom's collision with the telegraph pole and his dive into the glass of water. From the point where Tom climbs the pole himself and begins to give chase, Bradley employs the central theme from

²⁹⁵ Norrick, 'Conversational Performance of Narrative Jokes', (p. 272).

²⁹⁶ Norrick, 'Conversational Performance of Narrative Jokes', (p. 264).

²⁹⁷ Huron, pp. 9-10.

the Strauss waltz *Voices of Spring (Frühlingsstimmen)*.²⁹⁸ The melody continues for a full thirty-two bars in waltz time before the seal's jump at bar 289 (see figure 3.2).²⁹⁹ During this time, there is a gag where the seal ties the three telegraph wires into a knot. Tom, who has somehow procured a bicycle prior to climbing up the pole, is cycling along the middle wire. When Tom reaches the knot his bicycle splits completely into three, so that he is left pedalling the crankset along the middle wire while the front and back wheels take the wires either side of him. The soundtrack makes absolutely no reference to this piece of comic business - there is not even a sound effect when the bicycle falls apart. The effect of the temporally vectorized music is to keep the audience's attention focused on the future, informing them subtly that there is another, bigger, laugh to come at the end of the phrase. The music lets the audience know that, even though this occurrence is funny, there is more still to come, and they should maintain their anticipation for what will coincide with the cadence - namely, Tom's dive.

The audience's attention is directed towards the end of the unfolding joke by the metrical structure of the music. Huron has shown that audiences expect musical events to occur on the downbeat, and that their expectation is directly affected by what is statistically common.³⁰⁰ While similar statistical analyses have not been carried out for the music Bradley used, it is fairly uncontroversial to observe that the melodies he quoted - both popular and classical - tend to unfold in eight-bar phrases. The downbeat of the eighth bar is the point at which an audience would expect the musical cadence, and as Dahl observed is also often where the slapstick impact is positioned.³⁰¹

A good example of musical phrasing that guides the audience's attention to the slapstick conclusion is to be found in a different cartoon, *Salt Water Tabby* (1947). In one scene, notated in figure 3.4, Jerry shovels sand into Tom's teacup while the latter is not looking. The music accompanying the scene is the song 'Here's to the Girls', with words by Arthur Freed and music by Roger Edens, which had appeared in MGM's successful musical *Ziegfeld Follies* the previous

²⁹⁸ This melody was commonly associated with circuses, ice skating and other acrobatic performances. It also appears in *Mice Follies* (1934) where it accompanies Tom's virtuosic (and, inevitably, catastrophic) ice-skating.

²⁹⁹ To confuse matters, the thirty-two bars of the waltz are converted into sixteen bars of 6/8 time, as in bars 287-288 in the example. This makes performance easier, since the time signature change from and back into split common time is easier to navigate, but it results in four-bar phrases, rather than eight.

³⁰⁰ Huron, pp. 180.

³⁰¹ Dahl, (p. 3).

year.³⁰² Although most of the movements occur in time with the metre, the music does not draw attention to any particular action over another. For example, there is no added emphasis on Jerry's action as he pours in the sand, by Mickey Mousing or any other means. The music simply suggests that things are progressing - heading towards some sort of 'inevitable goal', as Chion says - which arrives when anticipated, as Tom swallows the cupful of sand and chokes on the downbeat of the eighth bar. The accompanying cadence is a deceptive one, which leads into a repeated shock chord played by the brass as Tom spits out the sand in disgust.³⁰³

It is worth observing that *Voices of Spring* and 'Here's to the Girls' do not need to be recognized by the audience in order to create the timing effect. It is sufficient that they conform to the common genre expectation of unfolding in eight-bar phrases. As long as the audience are familiar with the genre, and recognize the melodies as being likely to conform to it, they will expect the cadence to arrive when it does. However, this kind of timing effect is not possible using the avant-garde idiom that Bradley is most famous for, simply because the audience would not have any preconceived temporal expectations for a music that unfolds in this unfamiliar idiom. The avant-garde moments create an entirely different impression of temporal unfolding, within which it is impossible to rely aurally on any sense of metrical hierarchy. The effects of pre-existing music must be understood alongside those of the original gestures if we are to arrive at a clear picture of how the musical comic pacing works in the cartoon.

vi. Large-Scale Timing

I have so far limited the discussion to examples of individual gags within the cartoon, but it is worth considering the narrative of *Tom and Jerry* cartoons as a whole because they tend not to be a string of unrelated gags. Unlike some of Avery's work, for example, the overarching narrative of a *Tom and Jerry* cartoon almost always creates comic interest of its own. For example, the story of *Little Runaway* concerns an escaped circus seal who seeks shelter from Jerry. The pair enrage Tom when they steal his fish, and after he hears about a reward for the

³⁰² *Ziegfeld Follies*, which is made up of unrelated musical numbers, was directed by Lemuel Ayers, Roy Del Ruth, Robert Lewis, Vincente Minnelli, Merrill Pye, George Sidney and Charles Walters.

³⁰³ The American term 'deceptive cadence' seems far more apt than the British equivalent 'interrupted' in this case.

seal, the chase begins in earnest. It reaches its climax when Tom gives up on chasing the seal and tries subterfuge instead. He dresses himself up as a seal in black rubber from a car tyre, but just when he has successfully enticed the seal away from Jerry, a circus trainer arrives and mistakes Tom for the escapee. Tom does not even see the trainer's net until he is caught in it. The final scene is of Tom, still in his seal suit, performing in the circus and being rewarded with a fish. The story has humour of its own, quite independent of the violent antics along the way - it is a joke in its own right.

If we consider how music might best be brought to serve such large-scale narrative structures, we might well expect, on time-honoured precedent of Hollywood film scoring, a composer to resort to leitmotivic techniques. This was indeed a standard technique at the time, and Bradley too had built many of his earlier cartoon scores out of leitmotifs. But by the time of *Little Runaway*, he had more or less abandoned the leitmotif as a way of structuring the *Tom and Jerry* cartoons. It is worth examining how this gradual shift came about, because it brings clearly into relief a shift in the sense of which narrative elements were most deserving of musical support.

When the *Tom and Jerry* series began, the leitmotif was central to Bradley's techniques for structuring a score. In a 1937 interview, Bradley stated that, when he began composing the score for *Little Cheeser* (dir. Ising, 1936) he decided 'to surround him and his assisting "artists" with character themes in much the same fashion as Humperdinck did in *Hansel and Gretel*.'

Cheeser's theme is a playful, active sort of thing, four bars long. The Devil's, a sinister and menacing one, is three bars, and the Angel's, a prayer-like affair of three bars. With the appearance of any or all of these characters, their musical themes are heard in the score. The treatment varying, of course, as the situation demands.³⁰⁴

In *Puss Gets the Boot*, Bradley based most of the score on a pair of leitmotifs for the protagonists. Jerry's was based on 'Three Blind Mice', played on high strings and woodwind instruments, and Tom's was based on a bluesy melody, played on a trumpet with a 'wah wah' mute. In fact, Tom's melody pre-dates this appearance in *Puss Gets the Boot*, having also been used in *The Early Bird and the Worm* (dir. Ising, 1936). It is almost certainly based on a pre-existing song, but I have been unable to discover its title. At any rate, within the present

³⁰⁴ R. Vernon Steele, 'Scoring for Cartoons: An Interview with Scott Bradley', *Pacific Coast Musician*, 26.10 (May 1937), 12–13 (p. 12).

instance the two leitmotifs are orchestrated contrapuntally throughout the cartoon, and together provide the majority of the musical material.

The scores for the early sequels to *Puss Gets the Boot* have a similar structure, but utilize different material. Tom's music remained the same bluesy riff, but Jerry now acquired the nursery song 'Hickory Dickory Dock' as his theme in *The Midnight Snack* (1941), and a new one which Bradley may have composed himself in *The Night Before Christmas* (1941). After this, Bradley stopped basing his scores so thoroughly on the characters' leitmotifs, reserving them for isolated moments. The leitmotifs continued to diversify until Tom and Jerry each would have a collection of melodic fragments that might be called on to signal their presence and identity in any given cartoon. Arguably, the group of themes can no longer be called leitmotifs, since they are characterized not by a unique melodic or rhythmic element but by their more general features. Tom's themes are generally played by the trombone on the blues scale, and incorporate swing rhythms. Jerry's themes tend to be major, with simple non-swing rhythms, and to be orchestrated lightly for higher register instruments.

While Bradley refrained from using leitmotifs to construct his later *Tom and Jerry* scores, he nevertheless tended to repeat one or two melodies within an individual score in order to give it some large-scale coherence. At first, he would use one or two pre-existing melodies as the main themes, which would sometimes pertain to the narrative. For example, a love song might feature prominently if the story involved a female cat. But often the choice of main song seems to have been dictated by the suitability of its tempo to accompany the chases, such as 'All God's Chillun Got Rhythm' or 'Spreadin' Rhythm Around'. In later years, Bradley composed more original music, and relied less on pre-existing themes. *Little Runaway* has a recurring theme for the seal and Jerry, which Bradley apparently composed himself. The repetition of this theme during moments of rest, and its occasional distorted reiteration in moments like figure 3.3 (bars 225-226) impart a sense of large-scale unity to the cartoon.

While there is a vestige of leitmotivic structure in Bradley's use of repeated melodies, the large-scale unfolding of the cartoon score is more aptly described in terms of its narrative pacing. Bradley tends not to underline narrative events with themes. Instead, the music matches sections of chase and restfulness with suitably fast or slow segments. It may seem a simple

observation, but the result is to bring the narrative pace to the fore, in a way that clarifies the comic timing as it unfolds.

In terms of its structure and comic timing, the overarching joke is not all that different from the shorter ones. The narrative is generally set up in a way that clearly communicates to the audience all the information necessary for them to find the joke funny; the punch-line is clearly delineated from the preceding narrative. In fact, the structure of the joke can be described in similar terms to both of Tom's collisions with the telegraph pole and the glass of water. In each of the smaller scenes Tom's expectations are clearly communicated, as is his intention in the overarching narrative to catch the seal and claim the reward. Then, just at the moment when he thinks he is succeeding, something unexpected happens to him, such as being captured in the seal's place. The aftermath of the unexpected twist is also given some emphasis, in the form of Tom's surprised blinking and, in the large scale narrative, his experience at the circus.

In the large-scale narrative, the joke unfolds in clearly delineated stages. Norrick's description of the large-scale structure of narrative jokes matches surprisingly well with *Little Runaway*, far better than it does the individual slapstick gags already discussed. Perhaps because Norrick's study is based on longer narratives, his description of the structure of a typical joke would appear to offer a good basis for discussing the large-scale narrative of *Little Runaway*:

Jokes require prefaces, set-ups, build-ups, tension and a punch, in that order, and [to be] reinforced by such timing mechanisms as hesitation at the start, rhythm in the middle, tempo slowdown and semantic shift in the transition, then smooth delivery through the punch-line.³⁰⁵

The music helps articulate the sections of the narrative, create moments of hesitation and of rhythm, and slow down the tempo by pacing the cartoon into periods of chase and restfulness. The wide variety of techniques Bradley deployed signal various narrative elements and support the large-scale structure of the cartoon. These techniques range from famous and less-famous pre-existing melodies that conform to genre expectations, to recurring themes in the manner of leitmotifs, and highly original avant-garde gestures.

Little Runaway begins, as do all the *Tom and Jerry* cartoons, with opening titles. It would be tempting to dismiss these from the present discussion since

³⁰⁵ Norrick, 'Conversational Performance of Narrative Jokes', (pp. 271-272).

they are not unique to *Little Runaway*. They consist of the usual MGM logo, for which Bradley had written a fanfare, followed by the cards showing the character's faces and the credits. The accompaniment for the cards is the theme tune exclusive to the *Tom and Jerry* series, which was well-established by 1952.³⁰⁶ Bradley rarely altered the theme, as evidenced by the fact that most of the surviving written scores begin at 'Part 2', which would immediately follow the title cards. But it would be wrong to neglect the titles because they perform the initial task of preparing the audience for what is to follow - what Norrick has identified as the 'preface'. As well as announcing the brand of cartoon, and the likely style of comedy, to any audience familiar with other *Tom and Jerry* episodes, it establishes the musical idiom upon which so much of the comic timing depends.

Norrick has made the observation that 'Listeners expect hesitation and disfluency in the build-up of a joke, particularly in the opening sentences.'³⁰⁷ He gives an elaborate account of the sort of disfluency common to verbal joke-tellers:

[T]ellers frequently repeat themselves or correct themselves at the beginning of the performance: they typically start the joke, then hesitate, backtrack and re-start, often in a slightly different way. It may seem that they plunge into the joke then spin their wheels for a few seconds to organize their performance, but it happens so frequently that we might well view it as a standard strategy in oral joke performance.³⁰⁸

It is perhaps difficult to reconcile the hesitancy of a live performance in a social context with the fixed medium of the cartoon. There may be any number of sociological reasons why people might be hesitant in a social context, and it may be only tangentially related to the effective communication of the joke.³⁰⁹

However, Andrews has noted a comparable tendency in Dickens to take his time establishing the narrator, as in the beginning of *A Christmas Carol*:

³⁰⁶ Tex Avery's cartoons began with the same fanfare over the MGM logo, but had their own theme tune, as did the Barney Bear series. There were exceptions – cartoons that used a unique theme – and it appears the *Tom and Jerry* theme was only used consistently after c1949. It is difficult to establish whether it was used before this date, because restored versions of the earlier cartoons have sometimes appeared to have later credits grafted onto them whenever the original ones have become damaged.

³⁰⁷ Norrick, 'Conversational Performance of Narrative Jokes', (p. 264).

³⁰⁸ Norrick, 'Conversational Performance of Narrative Jokes', (p. 257).

³⁰⁹ It is outwith the scope of this study to examine the role of comedy in social relations, but there is a current field of research in this area. See for example Karl-Heinz Renner and Timo Heydasch, 'Performing Humor: On the Relations Between Self-Presentation Styles, Gelotophobia, Gelotophilia, and Katagelasticism', *Psychological Test and Assessment Modelling*, 52 (2010), 171–190.

He elaborates a fussy self-consciousness about his task as a storyteller and teasingly spins out what amounts to a shaggy-dog story (about the importance of knowing that *Marley was dead*). [...] This whole opening of nine paragraphs is a carefully tuned exercise in comic timing. Dickens creates the illusion of being a live entertainer. His main purpose in the first few paragraphs of this meandering preamble is to introduce neither Marley nor Scrooge, but himself, or rather the projected self of this whimsical storyteller.³¹⁰

We might easily say that the purpose of the title sequence is to introduce neither Tom nor Jerry, but the trappings of narration that will guide the audience through the unfolding story. While one could hardly complain that the title cards are 'meandering' or 'teasingly spun-out' they could arguably be removed without affecting the narrative. But the information contained in the titles is significant. Visually, there is the simple image of the two character's grinning faces, which suggests that what is about to unfold will be jovial. And musically, the title sequence is filled with subtle clues about what idiom the audience can expect the score to involve.

The theme tune begins with an eight bar phrase, and is reminiscent of contemporaneous popular music, in a stable major key, which sets up the expectation that the cartoon's score will largely conform to genre expectations. But the second phrase modulates to the mediant and back, which is slightly unexpected and suggests things may not be quite as straightforward. The coda ends with a tonic sixth chord, again suggesting the popular idiom of the time, but consists of a two-bar followed by a four-bar phrase, which again suggests a certain amount of flexibility from the idiom. So both tonally and temporally, the popular idiom is established, but with the possibility of deviations.

After the preface, comes the setup, in which the setting of the joke is established. According to Norrick, the opening phrases of a joke often include hesitations and repetitions. Tellers 'typically start the joke, then hesitate, backtrack and re-start, often in a slightly different way.'³¹¹ While the opening scenes of *Little Runaway* are not hesitant in the same sense - there is no rewinding to correct something - there is a sense that the cartoon has yet to reach its stride.³¹² The cartoon has two introductory scenes, clearly delineated

³¹⁰ Andrews, pp. 54-55.

³¹¹ Norrick, 'Conversational Performance of Narrative Jokes', (p. 257).

³¹² Avery did occasionally 'rewind' his cartoons, or correct them after they had started, such as in *Batty Baseball* (1944) where the titles are shown after someone points out their absence during the opening scene, and *Red Hot Riding Hood*, where the characters protest at the unoriginality of the fairy-tale and restart the cartoon in a modern setting. The fact that this produces quite a surprising form of humour

visually by transitional cuts. The first, in which the seal escapes, fades in from black, and then back again once the seal has begun his journey; the second, in which the seal enlists Jerry's help, fades from black to establish the main location of the garden. The second scene has a clear repetition of information already revealed, when the seal declares to Jerry, 'I am a seal. I ran away from the circus'. And in terms of pacing, the two scenes are very hesitant, especially in comparison to the chase scenes.

Throughout the first opening scene, the music seems to be taking its time in establishing a metre, a tonality and a connection to the onscreen activity - all the things we might expect would need to happen for the narrative to get under way. When the first scene fades up, the music features violins playing a sustained tremolo over a series of tonally unrelated triads on clarinets; when the seal is shown sawing at his bars, an oboe states a brief melodic gesture, and is soon joined by solo viola and cello, which slowly crescendo until the seal has jumped into the water trough. There is no attempt in either of these opening gestures to synchronize the musical and visual gestures, and there is no stable suggestion of a key centre. When the seal swims across the trough we hear a more rhythmic three-bar phrase played by two clarinets and bassoon, but although the metre is more stable the tonality remains undefined. It is only finally when the seal begins to lope into the distance that the music seems to be metrical, hinting at a key (with a D major 7th chord) and in synchronization with the images.

The second scene can be described as a series of interruptions. After the visual interruption of the fade to black, a regular metre and tonic key are finally properly established, but again with a certain degree of hesitation. While the establishing shot of the garden is accompanied by an adagio theme (which so closely resembles the first bars of the score for *The Little Mole* one cannot help wondering if Bradley copied it directly), the idyllic inclination is diverted by the appearance of Jerry into a much more playful, upbeat melody that becomes a sort of theme for him and the seal. When Jerry runs towards and dives into the pond, the theme is interrupted in turn in favour of a series of gestures closely synchronized to Jerry's movements. The close synchronization continues until the seal tells his story, under which the music is barely audible. When he

demonstrates how unnatural it seems within a fixed medium. Hanna and Barbera's hesitations are less elaborate, but they arguably perform a task much closer to that of the speaker's hesitations, easing the audience in and establishing the pace.

describes being made to play ‘Yankee Doodle’ on a series of horns - later we will witness Tom performing the very same at the end of the cartoon - the musical narration breaks off in order to provide sound effects for the seal’s mimed performance. It is only after Jerry has agreed to help that the music returns to the playful theme, and both the music and the narrative seem to have some form of impetus, reinforced by the seal’s request ‘Can you spare a fish?’

The second scene gives way to the third with another visual transitional cut - a wipe left to right - which reveals the interior of the house, where Tom is snoozing beside his fish. There is no further visual transition of this sort until Tom squashes into the glass. Even so, the chase still takes its time getting going. Jerry steals the fish and Tom immediately chases after him, but Jerry manages to waylay Tom temporarily by hiding behind the fish and making it perform a tap dance. It is only when Jerry is stupid enough to take a bow himself that Tom finally chases after him. And even when the chase is finally underway, the characters all halt to hear the radio news bulletin. It is only at this point - three and a half minutes into the seven-minute cartoon - that all the narrative motivation for the chase is in place.

The build-up of *Little Runaway* is really a building up of Tom’s frustration. From the moment he hears the radio broadcast until his impact in the glass of water, the narrative consists of fast-paced chases ending with Tom’s painful or outraged shock. The shock-chords have been described by Goldmark as being important, partly because they avoid the use of possibly more clichéd sound effects, and because of their ability to convey both the physical and mental content of a scene:

If we consider the music (in addition to the sound effects) as trying to depict how something sounds *and* feels, suddenly the purpose of Bradley’s most idiosyncratic moments of composition becomes clear: they are attempts at properly rendering an impact that will last for only eight frames, yet must resonate enough in the viewer’s psyche to cause him or her to flinch at the thought (and sound) of a painful injury.³¹³

The pain of the physical impact on Tom is a more important narrative element than the sound that impact might make, which is why Goldmark uses Chion’s term ‘rendering’, which refers to sounds that ‘convey the feelings or effects

³¹³ Goldmark, *Tunes for Toons*, p. 63.

associated with the situation on screen' as opposed to those that 'literally reproduce what might be heard in the real world'.³¹⁴

I would push Goldmark's point even further, and say that the emotional pain of the impact is more important than the physical one. Yes, the humour in the *Tom and Jerry* series is violent, but violent slapstick is funny because of the emotion it generates, as the example from *Not the Nine O'Clock News* demonstrates. Tom's physical disfigurement is only temporary, after all. Much more devastating to him is losing the seal time and again. In fact, the biggest shock chord (that is, the only one scored for the whole ensemble) happens without any physical impact, when Tom realizes he has handed the seal to Jerry (see figure 3.3).

The slapstick gags that comprise the chase scene are jokes in their own right. One could easily make the observation that the overarching narrative is simply an excuse for the chase. Whether one takes this view, or the opposing one that the chase is somehow a build-up for the narrative conclusion, is a matter of personal perception. Nevertheless, the chase can be viewed as preparation for the narrative twist when Tom is captured. In his discussion of comic timing, Double describes a common joke structure as being 'Establish, Reinforce, Surprise!' A tripartite structure is common but not essential for the underlying purpose of 'deviating from an expected pattern.'³¹⁵ In other words, some pattern is set up which leads the audience to predict what will happen, and the final iteration of the pattern subverts their expectation in some way. In *Little Runaway*, the established pattern is that Tom will chase the seal and have some sort of physical collision. This expectation is played out three times, when he collides with a fire hydrant, with the telegraph pole and with the glass. The surprise comes right at the end, when the audience might expect that Tom, dressed as a seal, will once again attempt to catch the escapee (and presumably suffer another collision of some kind). But the expectation is subverted when Tom is caught instead by the circus trainer.

Jacobs has observed a tripartite gag in the middle of *Playful Pluto*, which involves Pluto's altercation with a garden hose. She suggests that composer Frank Churchill 'tailors the score so as to reinforce a sense of distinct phases of the action, and the filmmakers vary the density and rhythm of both music and

³¹⁴ Goldmark, *Tunes for 'Toons*, p. 62. C.f. Chion, *Audio-Vision*, p. 224.

³¹⁵ Double, *Getting the Joke*, p. 207.

effects from one subsection to the next. [...] As the gag builds across these repetitions, each phase of the action is given its own musical treatment and builds to a culminating sync point.³¹⁶ The sections of the narrative of *Little Runaway* are similarly articulated as each builds to its climax, which consists of the visual distortion of Tom's body and the aural punctuation of the shock chord.

Structurally speaking, one of the important aspects of the build-up is its repetition and its formulaic content. Norrick has suggested that 'repetition and formulaicity help determine the rhythm of the joke performance',³¹⁷ and also that 'parallelism and repetition establish a rhythm which carries the auditor along, so as to render the punch all the more effective'.³¹⁸ Of course, the cartoon music is independently capable of establishing rhythm. I have already described the metrical nature of the individual gags contained in the chase. What is also worth noting is that the faster pace of the music during the long chase scene helps to link the impacts together. As Jacobs has observed in *Three Little Pigs*, the impression of a faster pace in *Little Runaway* is created mainly by the use of quaver triplets (sometimes notated as 12/8, as in figure 3.1) and the scalar nature of the melodic material.³¹⁹ The contour of the music often matches quite closely the direction of the onscreen characters. Bradley often employs a technique whereby he creates a short scalar figure in triplets or compound dotted rhythms and transposes it sequentially to give it a feeling of moving towards a goal - a temporal vectorization - that unlike the eight-bar melodies does not have a predictable moment for the cadence. Rather, it feels as if the possible finish line is constantly moving ahead, which exactly matches the feeling of chasing or of being chased. Several examples are notated in figure 3.5.

According to Norrick, an important moment occurs in narrative jokes towards the end of the build-up, called the 'transition' or 'pivot'. This is the information in the joke's build-up that will allow the punch-line to make unexpected sense. The simple example Norrick uses is, 'a pan-handler came up to me today and said he hadn't had a bite in weeks, so I bit him.'³²⁰ The pivot is the ambiguous phrase 'had a bite', which sets up the mistaken expectation for the audience that the next clause will refer to food, but also leads logically to

³¹⁶ Jacobs, p. 99-100.

³¹⁷ Norrick, 'Conversational Performance of Narrative Jokes', (p. 263).

³¹⁸ Norrick, 'Conversational Performance of Narrative Jokes', (p. 267).

³¹⁹ See Jacobs, p. 84.

³²⁰ Norrick, 'Conversational Performance of Narrative Jokes', (p. 259).

the punch line. In narrative jokes, Norrick has also identified that the transition often involves some form of switching of our perception of the characters: 'Here a new frame takes hold in which the victimized passer-by becomes the attacker, while the panhandler becomes the victim.'³²¹ The humour of the punch line lies in both the unexpected nature of the conclusion and its perfectly logical link to the pivot. As Norrick says, 'On reflection, we realize that the final twist was already latent in the pivot.'³²²

The pivot in the overarching narrative in *Little Runaway* is Tom's disguise as a seal. It generates the expectation that he will use it to lure the seal to him and cause another slapstick impact, an expectation which is reinforced by the repetitious gags of the preceding chase. But it also creates the perfectly logical possibility that the circus trainer will mistake Tom for the runaway. It also involves a switch in roles: Tom unexpectedly becomes the victim.

The timing of the pivot has to be carefully determined. It is essential that the audience absorb the essential 'pivotal' information because without it, the punch will make no sense. It is also beneficial if their false expectations are reinforced as strongly as possible before the surprising conclusion. Norrick has observed that, in spoken humour, the pivot often involves 'a shift in voice quality, speaking tempo and fluency'.³²³ More specifically, he has detected that a 'tempo slowdown' accompanies the transition.

In *Little Runaway*, the transition begins when Tom dresses himself up as a seal, which has a markedly slower tempo from the preceding chase. The scene begins with an iris opening, which is the first visual transitional shot other than a straight cut to have been used since Jerry stole Tom's fish. The music begins with a rising introductory figure which sounds very much like the musical equivalent of the iris, emphasising the break from the previous scene and its hectic tempo. Tonality and metre, which were both re-established with 'Voices of Spring' at the end of the previous scene, are maintained, while Tom disguises himself, and while Jerry and the seal play together. Even though Tom's intentions are not peaceful, a sense of relaxation arises from the temporary pause in the sequence of slapstick events. The relaxation is emphasised by the eight-bar jazz melody played on the trombone, and the return of the playful theme associated with Jerry and the seal. Even when Tom interrupts their game,

³²¹ Norrick, 'Conversational Performance of Narrative Jokes', (p. 259).

³²² Norrick, 'Conversational Performance of Narrative Jokes', (pp. 259-260).

³²³ Norrick, 'Conversational Performance of Narrative Jokes', (p. 260).

flattening Jerry in the process, there is little musically to suggest the threat implicit in his behaviour. Musically, his arrival is portrayed only by a shift of key as the theme is transposed down from the flute to the bass clarinet.

The relaxed atmosphere suggested by the predictable melodic theme is undercut by the visual and narrative tension of the scene. Tom's devilish grin whenever the seal is not looking at him raises the tension as the audience wonder what Tom will try next. Once he has lured the seal away, the music moves swiftly away from the security of predictable tonality and metre. Tom's and the seal's movements are closely synchronized to separate musical gestures, which gives little indication of what may happen next. These gestures, like those accompanying the chase, have little identifiable character - they are simply scalar or arpeggiated figures. By moving away from strict tonality and predictable metrical structures, the music ceases to give an impression of predictability.

The final preparation for the punch, which occurs with Tom's capture, unfolds through a long shot of him lurking around a corner for the arrival of the seal. The shadow of the circus trainer with his net creeps up behind Tom, accompanied by a drum roll and a chord in the low woodwind and brass which rises chromatically before being joined by the full ensemble. There is no audible metre underscoring these chords - the audience do not know at what moment the net will descend. The maximum amount of tension is prepared before Tom is swiped away, making a relatively long dramatic pause while the audience realize the full implication of Tom's decision to dress as a seal. The punch itself - Tom's capture - is over in a moment. Like the spoken joke, which involves 'a more rapid, fluid delivery of the punch-line,' the moment of capture consists of two swipes of the net - over Tom's head and gliding offscreen - accompanied by high-pitched slide-whistle glissandos.³²⁴ (The whistles are not notated in the score, so presumably were sound effects added after recording). After the punch, the scene at the circus makes further fun of Tom's fate, as he performs 'Yankee Doodle'. The scene also unequivocally re-establishes metre and tonality with the quotation of 'Flying Feet March' by William Axt, and the customary final fanfare.

³²⁴ Norrick, 'Conversational Performance of Narrative Jokes', (pp. 260-261).

vii. Conclusion

The comedy in *Tom and Jerry* is meticulously timed to create various effects. The large-scale narrative comes across as a set of articulated sections that ease the audience into the scenario before establishing a rhythm and building up towards a punch line. The sectional structure makes the story easier to comprehend, which compensates for the impossibility of clarifying details to a confused audience. Without the possibility of interaction, the audience must understand the unfolding narrative first time.

The cartoon uses its musical soundtrack to further compensate for the lack of interaction between the audience and the comedy. Where a stand-up comedian might gauge audience expectation as a joke unfolded, and make sure that certain information arrived only when the audience were ready, the cartoon instead uses the music to create moments of high expectation onto which is placed narrative events. The most obvious of these moments is the downbeat of the eighth bar, where it is commonly assumed the cadence will arrive. The effect is one of temporal vectorization, where the music appears to predict what is about to unfold, lending a comic air of inevitability to the action.

As well as guiding the audience, the music appears to portray the emotions of the characters. Bradley's shock chords, as Goldmark has observed, manage to convey the physical and mental pain of a violent impact as well as providing a suitable sound effect for the collision. But sometimes the funniest moments of horror are those that do not involve an impact, but merely a dawning realization of some kind. Tom's horror at having unthinkingly given the seal away to Jerry is portrayed by both visual distortion and the aural assault of a dissonant brass chord. In terms of timing, the chord occurs on a weaker beat of the bar, and after a series of crotchet triplets that further undermine the metre, so that Tom's surprised horror is emphasised by happening unexpectedly. Since the humour of slapstick often depends upon a character's mistaken impression of what is about to happen, the Tom's expectation is as important as his reaction. In the case of an unexpected impact, where a character's movements are interrupted, the music highlights the character's surprise by having what appears to be the start of a longer musical phrase interrupted at the point of collision. When Tom's swing on the telegraph wire comes to an abrupt collision with the pole, the musical momentum of the phrase is similarly cut short. In this case, the temporal vectorization of the music creates an impression that the

phrase ought to have continued for some undetermined length of time, rather than indicating a specific future moment.

The cartoon potentially has a lot more to teach scholars about comic timing, a field which is still relatively unexplored. One of the phenomena I have highlighted here is the distinction between different kinds of temporal vectorization: phrases that would appear to be continuing indefinitely, and those that lead towards a fixed point in the future. In the introduction to his article on timing, Norrick insists that comic timing cannot 'be measured in seconds on the clock'.³²⁵ Similarly, Double ridicules the notion that comedians have a 'joke-clock inside their heads'.³²⁶ Perhaps what is lacking in the passing of seconds is any idea of vectorization. Seconds pass no matter what kind of expectation the performer is portraying or the audience is feeling. A musical beat might be a more useful analogy for the timing of humour generally, since all beats do not pass equally. Some might be stressed, some might be elongated, some might temporally vectorize the listener's expectation towards a fixed point or just generally towards the future. And there is no doubt that the music for cartoons still has much more to teach us about the interplay of expectation and outcome that is so important both to comedy and to music.

³²⁵ Norrick, 'Conversational Performance of Narrative Jokes', (p. 256).

³²⁶ Double, *Stand-Up*, p. 251.

viii. Figures

Figure 3.1 *Little Runaway* bars 257-269, copied from the short score. With images from the cartoon.

The musical score is divided into three sections labeled A, B, and C. Section A (bars 257-260) features a melodic line for 'Strings and woodwind' starting at bar 257 with a 'col 8va' marking, and a 'loco' marking at bar 260. The piano and woodwind parts provide harmonic support. Section B (bars 261-262) shows a melodic line with a '2.' marking at bar 262. Section C (bars 263-265) includes a melodic line with a '3' marking at bar 264, a 'col 8vb' marking, and a 'Drum' part with a '3' marking at bar 264. The score is written in treble and bass clefs with a key signature of two sharps (F# and C#).

266 D

267 268 E

8vb seg

3 3 3 3

full

269 Xylophone

270

- A. The seal prepares for and makes his jump



- B. The seal swings up to the pole



- C. Tom prepares for and makes his jump



- D. Tom swings towards the pole



- E. Tom's impact with the pole (after this image he gets squashed, and blinks in time to the xylophone)

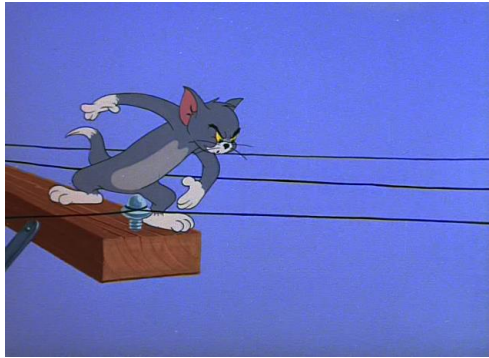


Figure 3.2 *Little Runaway* bars 287-298, copied from the short score. With images from the cartoon.

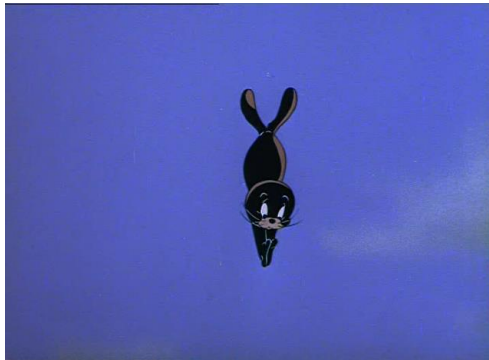
The musical score is divided into five systems, each corresponding to a lettered section (A-E) in the cartoon images. The notation includes various instruments and performance directions:

- System 1 (A):** Labeled "A" in a box. Includes "Strings and Woodwind" (top staff), "Strings and Woodwind" (second staff), "Brass" (third staff), and "Lower strings" (bottom staff). Bar 287 is marked with a fermata. Bar 288 has a fermata with a wavy line above it. Bar 289 is marked with a fermata.
- System 2 (C):** Labeled "C" in a box. Includes "+ Piano" (top staff) and "Lower strings" (bottom staff). Bar 290 is marked with a fermata. Bar 291 has a fermata with a wavy line above it. Bar 292 is marked with a fermata.
- System 3 (D):** Labeled "D" in a box. Includes "Strings and Woodwind" (top staff), "Brass" (middle staff), and "Lower strings" (bottom staff). Bar 293 is marked with a fermata. Bar 294 has a fermata with a wavy line above it. Bar 295 is marked with a fermata.
- System 4 (E):** Labeled "E" in a box. Includes "Strings and Woodwind" (top staff), "Brass" (middle staff), and "Lower strings" (bottom staff). Bar 296 has a fermata with a wavy line above it. Bar 297 is marked with a fermata. Bar 298 is marked with a fermata. The word "seg." is written in the first staff of this system. A "Xylophone" part is introduced in bar 298, with a fermata above it.

A. Tom watches the seal dive



B. The seal drops through the air



C. The seal splashes out of the glass of water and hurries away



D. Tom dives



E. Tom squashes into the glass (followed again by blinks in time with the xylophone)



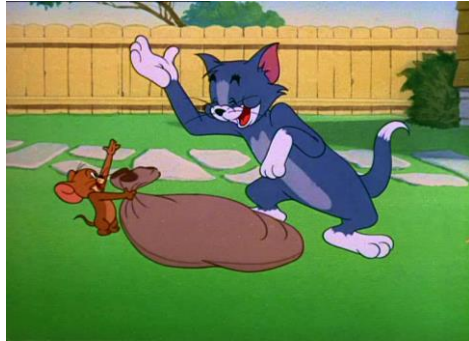
Figure 3.3 *Little Runaway* bars 225-232, copied from short score. With images from the cartoon.

The musical score is divided into two systems. The first system covers bars 225 to 228. Bar 225 is marked with a box 'A'. Bar 226 is marked with a box 'B'. The score includes three staves: a top staff with a treble clef, a middle staff with a treble clef, and a bottom staff with a bass clef. The top staff contains a melodic line with a fermata at the end of bar 228. The middle staff contains harmonic accompaniment for 'Woodwind, strings and piano' in bar 225, 'Strings and piano' in bar 226, 'Brass, woodwind, piano' in bar 227, and 'Brass tacet' in bar 228. The bottom staff contains a bass line. The second system covers bars 229 to 232. Bar 229 is marked with a box 'C'. Bar 230 is marked with a box 'D'. The score includes three staves: a top staff with a treble clef, a middle staff with a treble clef, and a bottom staff with a bass clef. The top staff features a saxophone line with triplets and a 'dim.' marking. The middle staff contains harmonic accompaniment for 'Cymbal' and 'Tutti'. The bottom staff contains a bass line. Bar numbers 229, 230, 231, and 232 are indicated above the top staff.

F. Jerry offers to take the seal for Tom



G. Tom and Jerry salute one another



H. After Jerry rushes off, Tom saunters away, relaxed.



I. Tom realizes his mistake.

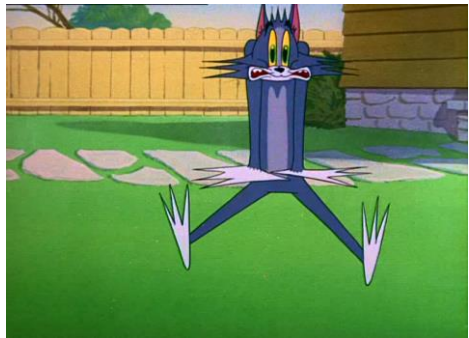


Figure 3.4 *Salt Water Tabby*, excerpt transcribed from the cartoon. With images from the cartoon.

The musical score is presented in three systems. The first system (measures 1-4) features Violins, Strings and Clarinets, and Double bass pizz. (8vb). Measure 1 is marked with a circled '1' and a box labeled 'A'. The second system (measures 5-8) features Violins, Strings and Clarinets, Double bass pizz. (8vb), and Brass. Measures 5, 6, 7, and 8 are marked with boxes labeled 'B', 'C', 'D', and 'E' respectively. The third system (measures 9-10) features Violins, Strings and Clarinets, and Double bass pizz. (8vb). Measure 9 is marked with a circled '9'. The score is in 2/4 time with a key signature of three sharps (F#, C#, G#).

- J. Tom puts spoonfuls of tea into his cup, in synchronization with the bass line.



- K. Jerry tips sand into Tom's cup.



- L. Tom swallows the cupful of sand.



- M. He pauses, as realisation dawns.



- N. Tom spits out sand in disgust.



Figure 3.5 *Little Runaway*, bars 201-203, copied from short score.

The musical score for Figure 3.5 consists of three staves. The top staff is for Violins, the middle for 2 Clarinets, and the bottom for Piano. The music is in 6/8 time. Bar 201 shows the Violins with a whole rest, while the Clarinets and Piano play. Bar 202 features a rising semiquaver sequence in the Violins, while the Clarinets and Piano continue. Bar 203 shows the Violins with a long note, while the Clarinets and Piano continue. The Piano part consists of a steady bass line with chords.

Jerry and the seal slow down and stop to hear the radio news broadcast. The sequence in the violins in bar 202 is comprised of four rising semiquavers, and prefigures no obvious ending. The less steep contour of the clarinets and the static pitch of the bass-line do, however, suggest the slowing down of the characters as the parts move towards convergence.

Figure 3.6 *Little Runaway*, bars 222-224, copied from short score.

The musical score for Figure 3.6 consists of three staves. The top staff is for Woodwind col. 8va, the middle for Piano and strings, and the bottom for Piano and strings. The music is in 6/8 time. Bar 222 features a triplet of eighth notes in the Woodwind col. 8va, while the Piano and strings play. Bar 223 continues the triplet in the Woodwind col. 8va, while the Piano and strings play. Bar 224 shows the Woodwind col. 8va with a long note, while the Piano and strings play. The Piano and strings part consists of a steady bass line with chords.

The seal struggles as Tom takes hold of him and picks him up. Once again, the slowing down is not predictable metrically. As in bars 201-203, the parts move closer together, this time with the lower parts rising, towards a static top line in the final two bars.

Figure 3.7 *Little Runaway*, bars 237-239, copied from short score.

Tom rushes through the gate after the seal. The sequence across bars 237 and 238 is in all parts, and conveys less directionality owing to the oscillating contour of the top line and the contrary motion between parts. Since Tom has momentarily lost sight of his quarry, the music may be portraying his own indecision about which way to go.

Conclusion

Even as I was grappling with my most recent thoughts about Avery, Bradley, and modernism, I was intrigued to find, in a review of Björk's latest album *Vulnicura* by Taylor Ho Bynum of *The New Yorker*, the following assertion - whose relevance to the present discussion should be immediately clear:

The creative realms of the popular and the cutting edge are always closer than generally portrayed. An experimentalist as dedicated as the composer Anthony Braxton mines the Super Bowl half-time show for conceptual inspiration for his operas, while a pop celebrity as high-profile as Beyoncé cribs dance moves for her videos from the avant-garde Belgian choreographer Anne Teresa De Keersmaeker.³²⁷

Here again, we find a vivid and up-to-date example of the way the unstable relationship between popular entertainments and ostensibly more 'serious' art forms continues to challenge any simplistic categorical assumptions.

On reflection, I am tempted to say that of all the issues that spring from a close consideration of Bradley's music for MGM's cartoons, those that circle around this notional boundary, or distinction, perhaps retain the greatest potential for further inquiry. After several decades' outpourings of theory about the so-called 'postmodern' turn, we might all too easily gain the impression that a once well-patrolled border between 'high' and 'low' culture has never been more open to attack. But for those wishing a more sceptical historiographical perspective on the perennially rich and unstable topography of creative cultural endeavours, the Hollywood cartoon, going all the way back to its earliest instantiations, stands as a vivid illustration of the degree to which such border-defying and -crossing has long preceded its latest instantiations.

It seems clear that the somewhat marginal place previously granted to popular modes of entertainment in academic discussion has now undergone pervasive (if inevitably incomplete) correction. I nonetheless come away from this study with the sense that comedy, and the comic mode, continues to suffer a somewhat 'second-rate' status within an academic purview that so prioritises (after e.g. Adorno *et al*) more 'serious', indeed darker, ideological concerns. While the Hollywood cartoon may well seem less well-equipped than, say, overtly political satire to demonstrate the rich potential of humour studies to contribute to a broader conception of entertainment as cultural critique, I would nonetheless suggest that its particular idiosyncrasies - from the 'musical' timing

³²⁷ Taylor Ho Bynum, 'Björk's Healing Music', *The New Yorker*, 10 March 2015 (para 3 of 10).

sheets, to the absurd physical/material distortions, to its endless opportunities for self-reflexive play - do offer several avenues towards generally applicable insight into 'comedy' as a central human practice. And in order to understand how comedy has any kind of cultural impact, there is still plenty of room for further investigation into how it achieves its humour in the first place.

Most of all, a close, comparative consideration of Scott Bradley's music and how it interacts with the imagery of his various collaborators validates the richness of the medium as a field for interrogating our preconceptions concerning comedy and popular culture and reaffirms the continuing value of music for animation as a field of further study for musicologists.

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