
On the Occult Nature of Sound-Image Synchronization

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Moments of precise synchronization in films are the key instances for pulling together physically unconnected image and sound tracks into an illusory whole—both in experiential as well as industrial terms. The ‘lock’ of audio and visual exerts a synergetic, what might be described as an occult, effect: a secret and esoteric effect that can dissipate in the face of an awareness of its existence. Film tends routinely to move between moments of synchrony between sound and image and points where there is no apparent synchronization. Approaching audiovisual culture from this, more abstract, perspective illuminates it in a form that removes the overly familiar aspects that have militated against sustained and detailed theorization of sound in films, and the notion of ‘sound films’ more generally. Drawing upon theories of sound originally developed by psychologists or sound theorists including Sergei Eisenstein, Pierre Schaeffer, R. Murray Schafer and Michel Chion, points of synchronization can

be approached as a form of repose, providing moments of comfort in a potentially threatening environment that can be overwrought with sound and image stimuli. Correspondingly, the lack of synchrony between sound and images has to be characterized as potentially disturbing for the audience. Following this perspective, the interplay between the two becomes the central dynamic of audiovisual culture and its objects can be reconceived and newly understood along these lines. This is likely a ‘hard-wired’ process whereby we are informed about the space we occupy through a combination of the senses, and a disparity between visual perception of a space and its apparently attached sound (or vice versa) might have some direct physical effect, or set in progress an unconscious unease or dissatisfaction that the film will endeavour to develop and assuage as part of its essential dynamic. Indeed, such biological concerns about sound’s perception and its place in our survival likely have been transposed into cinema, even directly exploited

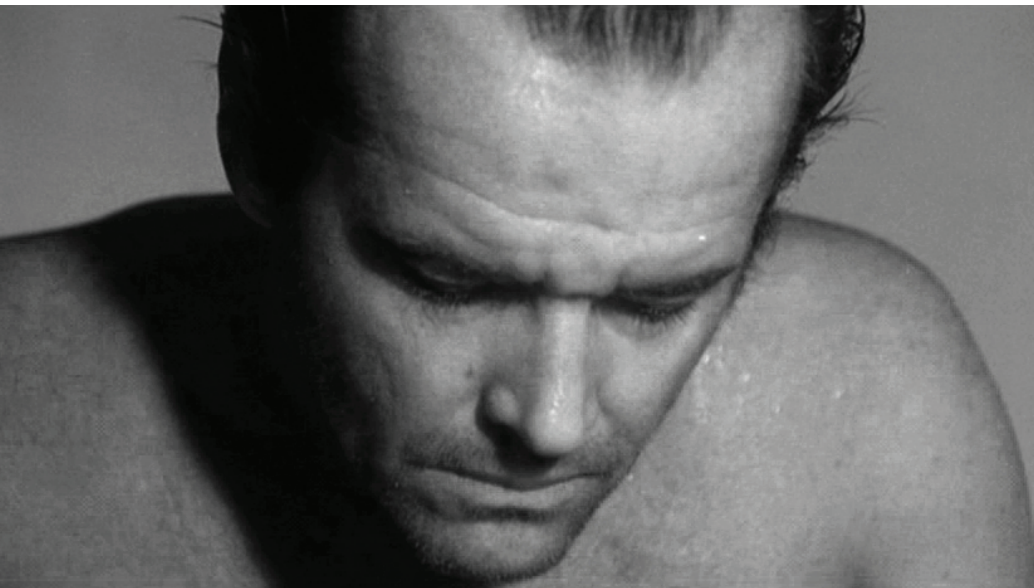
by cinema for the purposes of affect. This paper outlines a larger project, one that wishes to look askew at film, as a speculation, a rumination. My discussion aims to be tentative rather than conclusive.

There is surprisingly little written about synchronization of sound and image, and there certainly are no sustained studies. There is Michel Chion's discussion of 'synchresis,' the spontaneous perceptual welding of sound and image, and there was some concern in classical film theory

analyses of films take the illusion of unified sound and image as a 'given.' Earlier (talking about perception more generally), Maurice Merleau-Ponty noted that, "the only way to become aware...is to suspend the resultant activity, to refuse it our complicity" (xiii). My aim is momentarily to reconceive cinema as a set of *abstract* aesthetics rather than as an industrial practice or measured against a referent.

Contrary to the orthodoxy of historical discussion of the landmark 'talkie,' the debut of *The Jazz Singer* in Lon-

'Musical' aesthetics can doubtless offer something to audiovisual analysis of films as abstract structures.



(63-64). Writers such as Rudolf Arnheim, Bela Balazs, Vsevolod Pudovkin and Sergei Eisenstein wrote notable articles and book chapters about sound synchronized to image. However, their writing on the subject was dismissed in a cavalier fashion by later film theory, merely as representing a response to a restricted period of cinematic transition. They developed the notion of parallel and counterpoint as descriptive of the relationship between image and sound. They were interested in the space between image and sound communication—and consequently valorized asynchrony—as central to the principle of montage, which they saw as the heart of cinema. I am interested more in precise moments of synchrony and their relationship to asynchrony. In the 1970s, Christian Metz noted that analysis needs to "go beyond" the illusion of films (735-36)—yet almost all

don in October 1928 was not quite a triumph of the magnitude of its earlier US debut. Musicians' newspaper *The Melody Maker*, in an article entitled "Flowers all over the Orchestra Pit" (in clear anticipation of the masses of unemployed cinema musicians to come), noted that the audience was in peals of laughter due to the synchronization failures across the evening's programme (1150). In terms of film production, key moments or sequences (such as dialogue sequences) tend conventionally to have action matched to sound through direct synchronization, yielding the illusion of a coherent 'reality.' However, many sequences (sometimes including dialogue sequences) are not shot with location or synchronized sound. This habitually is added later, as part of the post-production stage—the point where the overwhelming majority of film sound is created (not just musi-

cal score but also ADR ‘dubbing’ and Foley). Consequently, there are plenty of points where visuals and sound do not match directly; sometimes they match only vaguely, and sometimes they are connected in a manner that is not immediately apparent. Sound in the cinema is less concerned with capturing reality than it is with producing a composite of sound and image that will be accepted by audiences, and thus is essentially conventional in character. Much effort is expended in sustaining the customary illusion. The logic is not simply about cause and effect or sound sources appearing on screen; there are also dynamic and aesthetic concerns. Synchronization occurs through editing techniques, staging techniques, musical or sonic cadence, gesture, or other means. Incidental music is commonly written to fit the ‘rough cut’ of the picture and in the overwhelming majority of cases keyed to ‘sync points.’ There is a concrete status to ‘sync points’ and dynamic ‘hits.’

concentrated.) We can rethink film, though, as a different form of temporal movement, between moments of synchronized repose and unsynchronized chaos. Films contain a large amount of asynchronous sound that we tend not to notice or register consciously; film aims to ensure that we do not linger on these moments. However, every film that has a synchronized soundtrack will evince this sort of forward development or ‘movement.’

A notable example takes place in Michelangelo Antonioni’s 1975 film *The Passenger*, or *Professione Reporter*. There is a startling sequence, where the protagonist, played by Jack Nicholson, is assuming the identity of the man he met the previous day who has since died. As he pastes his picture into the dead man’s passport, the soundtrack consists of a conversation between the reporter and the dead man that is temporally unconnected to what we see. After some minutes, the camera alights on a reel-to-reel tape,



These points of synchronization might be apprehended as instances of repose, providing moments of comfort in a potentially threatening environment that can be overwrought with sound and image stimuli. Correspondingly, the lack of synchrony between sound and images has to be characterized as potentially disturbing for the audience, perhaps even as moments of textual danger. Thus, from this perspective, the interplay between the two becomes the central dynamic of audiovisual culture and its objects can be reconceived and newly understood along these lines. Indeed, much contemporary mainstream film is often thought of as movement from set piece to set piece, with filler material in between. (We may well realize that the exigencies of film finance and production dictate that certain ‘featured’ sequences are nodes where the budget is

revealing that we are listening to a conversation recorded the previous night. If we think of this sequence in terms of a ‘classical’ sound counterpoint, its key is in the space between the meaning of soundtrack and image track and their seeming temporal dislocation. However, thinking of it in abstract terms, the key moment becomes the ‘snap back’ of the sound and image at the point where we realize that we are listening to a tape. Indeed, this is a very dramatic moment but also a very important instant in structural and perceptual terms.

Rather than merely conceive this as an industrial process and a by-product of the conventions of framing, recording and post-production, I might suggest this is something potentially more profound. It can be approached as an abstract, unconscious, and aesthetic drama in itself,

where film might play out momentary and instinctual understandings of and responses to the world. Within this system, precise synchronization and complete asynchrony represent different extremes of film, and extremes of experience for the viewer/auditor. Asynchrony, or at least an uncertain relationship of synchronization between images and sounds, renders the audience uncertain, making them uneasy or afraid. On the opposing pole, (absolute) synchronization suggests to us, or dramatizes for us, a situation

ments. This process can be fleeting or take longer and unfold in a more leisurely manner. Thinking of this in musical terms, this is strikingly reminiscent of the harmonic movement of classical tonality, where music in the tonic key then 'develops' by moving (or 'modulating') into different keys before returning 'home' to the tonic key. Indeed, it could well be advantageous to think of film's temporal progression precisely in musical terms, where sounds and images form notable 'cadences' conjoining or ending sections of

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where all is well with the world: everything is in its rightful place. Ambiguity about synchronization (or a total lack of it) is potentially unsettling. At the very least it is a different 'mode' from synchronized 'normality' on screen.

Film is precisely 'audiovisual' and the aesthetics of sound are at the heart of the medium. Indeed, contemporary sound design increasingly appears to be musical in inspiration, regularly conceiving of a holistic soundtrack and using technology developed essentially for the music industry. Consequently, the formats and logic of music can be used as a means of understanding film, particularly if one focuses on the abstract aesthetics evident in music and non-figurative art. While film may seem to be a figurative medium, it is also concerned with non-figurative aspects, such as time and impressions of space, which usually are associated more with arts such as music. I would argue that 'musical' aesthetics can doubtless offer something to audiovisual analysis of films as abstract structures. Consequently, films can be approached as a conglomeration of related abstract aesthetic concepts (line, contrast, dynamics, harmony and counterpoint, discord, rhythm and cross-rhythm, foreground and background, event and accompaniment, and register, for example) that 'make sense' in themselves as much as film's elements make sense—as dominant theory might argue—through recourse to a film's central narrative developmental drive. Such an approach allows a rethink of film, precisely as an audiovisual and essentially aesthetic medium.

Following the logic already outlined, we might reconceptualize films as a forward movement through time from moments of synchronization of image and sound through unsynchronized moments and back to synchronized mo-

space, narrative, or activity. Similarly, we might think of the resolution of dissonance to consonance in the vocabulary of tonal harmony as a metaphorical correlation to the relationship between synchrony and asynchrony in films. Such thought inspires an approach that reconceives film in terms of abstract dynamics and illuminates the sound film as an abstract psychology rather than as representation. We can see a succession of states that cohere around the existence of the audiovisual 'lock' between sound and image: precise synchronization, the 'plesiochronous' where they are nearly (or vaguely) in sync, and the unsynchronized (asynchrony), which can be fully disconnected in causal as much as psychological terms. These three states make dynamic transitions that manifest a temporal development across every film.

After taking analysis in to abstraction, looking into principles of contrast, tension-resolution structures, dynamic matching and contrast, homology and difference, and so on, I'm interested in introducing a degree of biological determinism to attempt to understand how synchronization appears to serve films. Human beings likely react to discontinuity between what is seen and what is heard on an unconscious or pre-conscious level. It is reasonable to imagine that this is a 'hard-wired' process whereby we are informed about the space we occupy through a combination of the senses. A disparity between visual perception of a space and its apparently attached sound (or vice versa) could have some direct physical effect on the inner ear akin to the delicacy of the balance mechanism, or set in process an unconscious unease or dissatisfaction that the film will endeavor to develop and assuage as part of its essential dynamic. This disparity in perception probably evolved as a defense mechanism that, for example, might inform us that

the wall at the back of the cave is lacking in echo, meaning that a large predator is there, hidden from sight. Such biological concerns about sound's perception and its place in our survival may well have been transposed into cinema, even directly exploited by cinema for the purposes of affect. Since the advent of 5.1 surround sound cinema, soundtracks have spatialized their elements as never before. Features such as the 'in-the-wings sound' effect still can make us partially turn our heads, forcing an involuntary physical reaction to sound. It is worth remembering that sounds that emanate from anywhere except directly in front of us are perceived as a potential threat, which corresponds with Schafer's characterization of acousmatic sound (32). Indeed, as these points attest, there is something absolutely primal about the synchronization of sound and image (both in and out of the cinema). Clearly, the senses of hearing and seeing are not totally separated. The cross-referencing of the two, making for a seamless continuum of perception would have to be approached as the dominant normality of human physicality.

The exigencies of the human body are partially activated and altered in significant ways by the cinema. I suspect that moments of synchronization between sound and image provide feelings of coalescence, joining up, and ultimately of integration. Integration on an aesthetic level homologizes feelings of integration on a level of physical-mental well-being and ultimately of wider social integration. Following Adorno's suggestion in *Philosophy of Modern Music* that cultural objects embody social substance (130), we might characterize the abstract play of synchronization in films (indirectly, at least) as a mirroring of the social and psychological processes of understanding our place in the world and perception of risk in modern life. In *Composing for the Films*, Adorno and Eisler discuss the separation ('counterpoint') of sound and image:

The alienation of the media from each other reflects a society alienated from itself, men whose functions are severed from each other even within each individual. Therefore the aesthetic divergence of the media is potentially a legitimate means of expression, not merely a regrettable deficiency that has to be concealed as well as possible. (74)

Since the introduction of synchronized sound, technological developments have allowed for more precise editing and synchronizing of sound and image. Developments in digital technology over the last decade or so have enabled a previously unimagined degree of control for filmmakers and an increasingly complex aesthetic experience for cinema audiences. Concurrently, in the world outside the cinema, we are in more and more situations where sound does not immediately match to our visual perception. This is

attested to by the visible proliferation of cellphones, iPods and ambient sounds in cities with no clear origin, such as distant traffic or aircraft. As many of us are aware, one effect of being in a world where there is increasingly less 'sync,' where things seem more 'out of sync,' is that of increased mental disturbance, cognitive dissonance, and stress.

Moving to an even more speculative conclusion: considering sound cinema in the light of its central illusion of synchronization, I would suggest, illuminates the process as being a magical talisman to ward off the natural separation of sound and image, at least as much as it is a banal industrial practice. It is 'occult' in that it manifests the belief that esoteric and secret ritual holds the world together (perhaps dealing with a deeper 'spiritual' reality). The approach outlined here reveals that synchronization of sound and image into a whole is precisely a point of *belief*, and thus desire must be central—something perhaps obvious, but forgotten in much recent thinking about films. Furthermore, while I characterize the 'lock' of sound and image as an 'occult' aspect of sound cinema, based on a secret knowledge and hidden hand, I also acknowledge the occult aspects of theory. The paper's title might not merely describe the hidden process afoot but may also register theory as esoteric *ritual* to 'de-enchant' film, and confront the secrets of the conceptual, psychological and ideological 'lock' between sound and image.

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