

# About Some Psychological Observations Made During Film Screenings

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According to Wundt and his school of thought, the main principle in the perception of movement in stroboscopic discs and other similar equipment would lie in the intervention of reproduced elements of visual representations.<sup>1</sup> Even though I do not wish to enter the list of those who support this theory, I strongly believe that it is undeniable that associative processes do participate in this phenomenon and complete the impression, often inadequate, during motion picture screening. In fact, how could the perception of distance, size, direction, and speed of movement be acquired so rapidly, were it not for the help provided by previous experience?

These associative processes do not always remain in the same field as visual sensations, but often they also occur between different fields of sensations; and it is in reference to some of these complications that I have gathered together the comments included in this article. The complications in question can have two origins. In one case, and certainly the most frequent, the sensations associated with visual representations are not determined by external stimulus, but are produced by psychic elements. Therefore, it is not unusual to connect the acoustics associated with the images and the noises they represent, such as falling water, the movement of heavy machinery, car wheels running on pavement. In other words, they are part of multiple acoustic representations previously experienced in connection with similar visual representations, which help us in this case, and make even more vivid the true visual impression that is actually before our eyes. These reproduced elements belong to other fields of sensation, and when they are associated with the scenes from life that are presented to us in a visual image, they are far from small exponents of the interest provoked by the motion picture or film. Sometimes, for example, when we are watching a film, we feel the desire to applaud. This impulse would seem inexplicable if we were always very conscious of the fact that, even in these moments, we are sitting in front of a screen and not actually participating in the events that have inspired our desire to applaud.

However, there is no doubt that the fusion between true visual images and reproduced elements can never attain the clarity that we are able to observe in association between sensorial elements which all depend on direct impressions. For example, the fusion between the acoustic impressions from the film or motion picture theatre with the images on the screen is quite strong. These are the cases that surprise us most when we become conscious of the illusion itself. In this situation, the illusion depends on an error in localization. The sound impressions refer to a place which is totally different from their actual locality. In addition to this false reference and the association that is established with the visual image, there is also the need for a change in the interpretation of the causes that determine it. And in the successive analysis of this phenomenon, this often makes it difficult to retrace the true origin.

For example, the case is not unusual where we must search for the cause of these sound impressions among the sounds produced by the small orchestra that normally accompanies the film. I remember that during the screening of a film showing a pagoda in Burma, while two adolescents were striking some bells with a horn, I was surprised by the fact that little by little, I no longer noticed the sound, but the special vibration that normally follows the striking of a door knocker. By retracing back to the cause of this illusion I realized that this was caused by an association of the visual impression with some of the lowest notes played by the string instruments in the orchestra.

These fragments of acoustic representation blended with visual impressions have for the most part, characteristics of sound. A good example of the facility with which certain sounds can refer to scenes shown on the screen is this: the motion picture was about a car racing around an area of Rio de Janeiro. During this scene, while the car was driving from a point in the distance towards the viewer, I had the impression for a moment that I could feel the throbbing of the motor. Immediately afterwards, I realized that the effect had been caused by the noise of the electric fan in the theatre.

It has often happened that I was certain I could hear the noise of a mountain river or a waterfall, only to realize later that the sound was caused by a fan or the film projector. I remember a case where for the same reason, professor Kiesow and I had the distinct impression of a similar noise watching a film located in the valleys in the Savoy mountains.<sup>2</sup>

The shorter the acoustic impressions are, the more difficult it is to recognize their true origin and identify where they are coming from, because we tend to immediately blend it into the single total representation using the predominant conscious perception, which in the case of films, is of course, visual. During a film screening I saw not very long ago, there was a

scene where a son was being taken away from his mother: when the mother placed her lips on her son's forehead, a person among the public made a kissing noise, and for me, this was perfectly localized on the screen, as if it were made to order, and in this case, it was the association between two sensorial representations.

On the other hand, when one deliberately attempts to connect full representational experiences in two fields of sensations, it is rare that one is able to obtain the desired effect, at least in my personal experience. Everybody is aware of the attempts to combine filmed representations with acoustic equivalents using a phonograph. I have no idea whether results in the future will be more satisfactory than those obtained up to this point. In my opinion, even when it is possible to obtain perfect synchronicity between pieces of film and phonographic equipment to eliminate the most obvious problems with the most substantial difficulties, perhaps the most impossible problem will remain: the difference of locality of the origin of the sound in relation to the locality of the visual impression, which prevents perfect fusion in the two levels of impression.

Music, which in Italian motion picture theatres is played while the image or picture is screened, represents an aesthetic 'filler' of far greater value; I use the term 'filler' in the sense that, in spite of the meaning of the piece that is played, it also draws the ear into these silent films, and therefore the auditory impressions always remain in the peripheral zone and less clearly in the plane of consciousness. And when you have been used to hearing the musical filler, it is a sad feeling when it is totally missing. It almost seems that we notice the lack of music more than its presence when it is played.

To help the acoustic-visual association, certain direct sound effects are produced behind the screen to imitate the noise normally associated with the movement of certain objects, such as the sound of car wheels, etc., for example. Once, I experienced the perfect illusion of the imitation of pelting rain accompanying the screening of a scene from Dante's *L'Inferno*, and more to the point, the downpour tormenting the greedy in the third circle.<sup>3</sup>

If the associations between visual representation and direct acoustic impressions are the easiest to be observed, there are plenty of cases where visual representation blends with other field of sensations.

During the scene of Dante's *Inferno*, referred to previously, a person sitting close to me experienced a decided impression of damp and cold while watching the scene. This impression, so unconsciously referred to the visual representation was no doubt caused by the weather conditions that evening (27 March 1911), which was rainy, and the theatre was damp and cold.

In June of last year, I was watching a film of a group of tourists on a trip to Tunisia. While the ship was sailing across the Mediterranean on the screen, we could see the waves beating against the hull, and my mother said to me 'I seem to actually feel the fresh air and see that water.' Here again, the feeling of fresh air, that was attributed to the sight of sea waves did not depend entirely on the film, but was influenced to a certain extent by the draft from the fan attached to the ceiling, and when it turned on its vertical axis, it sent a flow of fresh air when it turned in our direction.

Impressions of this kind would not be noticed particularly, but for the fact that the visual representations made the effect seem more obvious.

A typical example of a complication that arose between visual and olfactory sensations was an illusion that professor Kiesow and I experienced at the same time, but in a completely separate manner. The scene showed a horse stable where hay was being roughly taken from a manger. Professor Kiesow turned and said to me at that moment, 'I seem to be able to smell that hay.' And I made the same comment at the same time. Objectively, as we discovered later, it was actually a smell inside the theatre, coming from a person who had come in a short time before and was sitting not very far from us. We were not able to establish exactly what the smell was; but we were able to absolutely exclude that it was the smell of hay. The visual impression was so predominant at that time that it induced us to associate the smell of hay with a smell of another nature from a totally different source.

Generally speaking, we can say that our whole complex sensorial organism takes part in a representational experience truly and uniquely linked with a given field of sensations. Even secondary factors that participate from a considerable distance, at the extreme limit of consciousness in a visual representation, are able to take advantage of complete perception, through visual association. If these secondary elements were not present, the illusion would seem less perfect.

So, it often happens that we see views filmed from a moving locomotive or from the window of a train. The objects that are photographed in this case, are rapidly enlarged on the screen; we interpret this as the objects moving closer to us, as we immediately recognize that it is the same impression we have experienced many times before as we watch a panorama from a moving train. However, there are certain aspects which weaken the illusion up to a certain point, among which, the imperfect vision of the contours and the fact that, because of the type of lighting in the theatre, the abrupt, dark edges of the illuminated screen are visible. We are able to eliminate these two disturbing elements almost completely by watching the screen as if through a pair of binoculars, our hands to form a tube so that the eyes

do not see the screen edges. In this way, the illusion becomes more perfect, but another secondary factor is still lacking, which removes part of the efficiency, and that is composed of the muscular and tactile sensations caused by the vibration of the train, which generally accompany the true vision of the objects when actually in a train.

Lastly, it is also worth noting the curious inhibiting effect on all these associative phenomena that occur in the plane of consciousness and the very fact that we decide to observe them. Every time I have been to the movie theatre with the precise intention to collect new data concerning visual-acoustic associations, I have never been able to identify a single one. Therefore, the examples described here have been observed by chance, at times when I was not actually concentrating on that aspect; once they have actually been perceived, then I am able to analyse them by focusing my attention on them.

I felt it was worth mentioning these observations, because although it is not yet clear in the field of associations, despite considerable study on the question, each contribution provides a new fact or the way to observe that can mean another step closer to deciphering these rather complicated psychic processes.

*'Di alcune osservazioni psicologiche fatte durante rappresentazioni cinematografiche', Atti della Reale accademia delle scienze di Torino* 46/15a (1910–1911), pp. 943–948. Translated by National Museum of Cinema, Turin.

## Notes

1. [Editors' note. The author is referring to a stroboscope, a patented device created in 1833 by Simon Ritter von Stampfer. A disc with painted figures is rotated on the same axis as a second disk of equal proportions with small holes, and these figures seem in motion when seen from a stationary perspective.]
2. [Editors' note. Friedrich Kiesow (1858–1940) was a German psychologist and professor at the University of Turin for almost 30 years. A student of Wilhem Wundt, he was one of the leading international experts in experimental psychology.]
3. [Editors' note. The author is referring to the 1911 film, *L'Inferno*, directed by Francesco Bertolini, Alfonso Padovan, and Giuseppe de Liguoro.]