

A phenomenological analysis of Fellini's films to understand the effect of LSD therapy on his creativity

Antonio Metastasio^{1,2}, Silvio Mignogna³, Riccardo Paci⁴,
Milena Mancini³, Fabio Melelli¹, Enrico Lando¹, Ornella Corazza¹
and Giovanni Stanghellini³

Drug Science, Policy and Law

Volume 9: 1–8

© The Author(s) 2023



Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/20503245231186723

journals.sagepub.com/home/dsp

Abstract

Since its discovery in 1943, LSD has been used by artists, scientists, and intellectuals, amongst others, to stimulate their creative insights. Federico Fellini, one of the most important film directors in the XX century, used LSD when it was still legal under the guidance of his psychoanalyst during a phase of personal and creative crisis. This article proposes a phenomenological analysis of how his filmmaking and his creativity was enhanced after using LSD in such controlled therapeutic settings, according to four main domains: (a) time, (b) space, (c) body and others and (d) perception of the self. In particular, time flows irregularly and is punctuated by disorienting flashbacks, colours become supernaturally brilliant and detached from objects, sounds pop up independently from any visible source, and human bodies become often deformed, grotesque and caricatural. The boundaries between dream- and reality-worlds also collapses. His films became so distinctive and original that an adjective was coined *felliniesque*.

Keywords

human enhancement, LSD, creativity, phenomenology, cinema, psychotherapy

Introduction

Fellini, his time and the LSD

Federico Fellini has been one of the most remarkable and unique film directors. His style was peculiar, and his work has widely influenced the contemporary intelligentsia all over the world. Fellini, like many other intellectuals of his time was exposed, legally (psychedelics were not banned then) to LSD. We believe that LSD had an impact on his creativity. In our present days, we are witnessing a renaissance of psychedelics, at least in therapeutic settings. If the clinical studies will confirm the relative safety of these compounds, we believe that might be worth considering again these compounds as creativity aids. For this reason, might be necessary to have a public debate about the possibility and the form of a legalisation of these molecules not only for therapeutic but also for creative purposes bearing in mind the use that was made in the 50 s and 60 s by a large cohort of very successful intellectuals.

LSD and the “psychotomimetic” and “psychotherapeutic” paradigms. LSD-25 is a powerful hallucinogenic compound

with psychoactive properties. We refer to it as a “psychedelic” drug, a term invented by the psychiatrist Humphrey Osmond in 1957 (Tanne, 2004), derived from the Ancient Greek words ψυχή, “soul” and δηλοῦν, “to make visible, to reveal”, translating to “mind-manifesting”. From a chemical prospective, it’s a semi-synthetic diethyl-amine derivative, obtained from *Claviceps Purpurea*, an ergot fungus that grows on rye and wheat. It was first synthesized by the famous Swiss scientist Albert Hofmann (1906–2008), in 1938. However, its psychedelic proprieties

¹Department of Clinical, Pharmaceutical and Biological Science, University of Hertfordshire, Hatfield, UK

²Camden and Islington NHS Foundation Trust, London, UK

³Department of Psychological, Health and Territorial Science, Università degli Studi Gabriele d’Annunzio Chieti Pescara, Chieti, Italy

⁴Università degli Studi di Bologna Scuola di Medicina e Chirurgia, Bologna, Italy

Corresponding author:

Antonio Metastasio, Department of Clinical, Pharmaceutical and Biological Science, University of Hertfordshire, College Lane, Hatfield, Hertfordshire AL10 9AB, UK.

Email: antonio.metastasio@gmail.com

were discovered accidentally only five years later, in 1943, during the iconic “bicycle-ride” of April 19th (Hofmann, 1980).

This novel substance, produced and distributed by Sandoz starting from 1947 under the brand name Delysid®, was widely used in the scientific field, at first as an ideal model for psychiatrists to understand the psychotic or delusional state in schizophrenic patients: we could refer to this trend as the “psychotomimetic paradigm” period, from 1947 to 1957 (Samorini, 2019). At the same time and in subsequent years, in an only apparent contradiction, many psychologists and psychiatrists all over the world studied LSD in the treatment of a large variety of psychiatric and neurological conditions, especially as an adjuvant tool in psychotherapy. During the phase of the “psychotherapeutic paradigm” (1957–1972) (Samorini, 2019), two main ideal types of LSD therapy arose: 1) the *psychedelic therapy*, originated in Canada and in North America, that emphasized the mystical or conversion experience and its aftereffects, involves the use of a large dose in a single session and was thought to be helpful in alcohol addiction treatment; and the *psycholitic therapy* (literally “mind-loosening”), developed mainly in Europe, which requires relatively small doses and several or even many sessions of psychoanalytic sessions to treat neurotic and psychosomatic disorders (Grinspoon, 1979).

LSD and the enhancement of creativity. Besides being used in scientific and medical fields, LSD and other psychedelics have also been used to stimulate and enhance creativity by several scientists, artists and intellectuals since the 1960s; there are many anecdotal examples and it is very likely that the use of drugs to enhance artistic creativity dates back to the dawn of human age (Sessa, 2008).

The common perception of LSD and psychedelic drugs has been that they were mostly limited to the hippie culture and art. In actual fact, they were used by the many outstanding individuals in the mainstream scientific, academic and artistic world. We could provide a very long list, but just to cite few scientists that explicitly stated the importance of their psychedelic experiences in their career: Francis Crick, who discovered together with Watson and Rosalind Franklin the double helix shape of the DNA; Cary Mullins, Nobel Laureate for the invention of the Polymerase Chain Reaction (PCR) (Harrison, 2006).

Furthermore, even though the underlying mechanism is yet to be clarified (Sessa, 2008), many researchers tried to study the role of psychedelics in creativity: among others, one famous example of the past was the institution, from 1961 to 1966, of the “International Foundation for Advanced Study (IFAS)” in Menlo Park, California, by the engineer Myron Stolaroff, whose mission was to explore LSD potential to amplify human personality and creativity (Pollan, 2018).

Writers, artists and directors also experimented with these compounds. Probably one of the most notorious was the English novelist and philosopher Aldous Huxley, author of the essay “The doors of perception” (Huxley, 1954) where he described his experience with mescaline, made possible by the help of his friend Humphry Osmond. Moving to the jet set, stars or artist like Cary Grant (Pollan, 2018). We could argue, however, that the use of psychedelics as both a therapeutic aid and as a creativity enhancer was widespread in the intellectual milieu, on both sides of the Atlantic in the two decades between the late 40 s and the late 60 s.

This golden age of LSD research and experiments dramatically ended when its use spread among the American counterculture movements during the Sixties, thanks to the charismatic guide of its guru, such as Timothy Leary, former psychology professor at Harvard, who quit his job to spread the “psychedelics sacraments” among young people with his famous motto “Turn on, tune in, drop out” (Leary, 1983). The rise of this anti-system movement lead Sandoz to stop producing and distributing LSD in 1966 and later in 1970 to the Controlled Substances Act which banned LSD amongst other psychoactive substances.

The use of LSD among Italian intellectuals and artists. The psychedelic Italian experience during that period, as far as its scientific and intellectual aspects are concerned, is probably less known. In recent years, however, many researchers and intellectuals are re-discovering the profound influence as well as the significant contribution of this Country in understanding psychedelics (Samorini, 2019).

A significant cohort of artists and intellectuals, many belonging to the “via Margutta” group in Rome used psychedelics. Among these, we find the roman writer Elsa Morante, the art critic Federico Zeri, the film director Gillo Pontecorvo (before shooting his masterpiece “the Battle of Algiers”) and Oscar winner director Federico Fellini (Guarnaccia, 2017). LSD in particular was used by one of the fathers of Italian psychoanalysis Emilio Servadio. One of his famous and most prophetic quotes was: “*LSD seems to be a substance came from another planet, from other dimensions of the existence. It will be up to us whether it’ll be well “integrated” to a superior and worthy level or set aside and “removed” like something too big, that mankind was not able to embed*”(Servadio, 1967).

Servadio applied LSD psycholitic psychotherapy with many of his patients, though he was particularly interested in testing the substance effects in creative personalities. One of them was the above-mentioned Federico Fellini, who always had a significant attention and preference towards inner psychic life and the irrational unconscious world, as well-shown by his filmography (Guarnaccia, 2017). The director of *La Dolce vita* underwent an LSD psycholitic session during the summer of 1964, just after the release

of 8½, one of his most successful films, awarded with two Oscars, seven Silver Ribbons (renowned Italian film awards) and the Grand Prix of the Moscow film festival. Despite these outstanding achievements, Fellini was undergoing a personal and creative crisis, so Servadio offered him a session with LSD. One particular aspect of the session itself was the incoherence of its narration according to different points of view: Fellini stated that he needed the therapist, few nurses and finally a sedative medication to put his trip to an end, whereas, according to Servadio, the experience was far less dramatic, as he needed only the therapist, a nurse and a magnetophone to record the session (unfortunately we have been unable to locate and access the transcription of the session).

Why Federico Fellini? There are four main reasons to explain why we have chosen Fellini among many other creative and intellectuals who used LSD as a source of inspiration: 1) the use of LSD is clearly documented, by different authors and Fellini himself (he talks about it in an interview), and dated; 2) Fellini was nearly a teetotaler and did not use any other drugs; 3) all Fellini's films bear a strong autobiographical and introspective component; 4) and are strongly characterized, after the author used LSD, by images, scenarios, dialogues, movement and temporal sequences, therefore, constituting the ideal context for the study of how psychedelics can impact on these domains.

Fellini becomes a film director after a long apprenticeship divided between satirical newspapers and screenplays for films with a clear realist imprint. Since the early 1940s along with Aldo Fabrizi he has brought a wave of naturalism and popular moods into Italian cinema in a context, such as that of fascist cinema, in which everyday life is often sweetened and sublimated in a substantial abstraction. It is no coincidence, therefore, that with the liberation of Italy, he becomes one of the main collaborators of Roberto Rossellini (the father with De Sica of Italian Neorealism), for whom he is at the same time screenwriter and assistant director, in films such as *Roma città aperta* (1945). Fellini transferred his experience as author in a sort of vaudeville, called *avanspettacolo* and in peculiar theatre show as the author of comic gags and sketches, to his debut behind the camera, *Luci del Varietà* (1950) signed together with Alberto Lattuada. So already in his debut film, Fellini resorts to his autobiography as the main subject of his stories for the big screen. Autobiographism that marks later works such as *I vitelloni* (1953), *La Dolce Vita* (1960) and *8 ½* (1963), in which the story is presenting surreal and dreamlike elements that sometimes reach the tone of a fairy-tale in films such as *La strada* (1954) and *Le notti di Cabiria* (1957). When in 1965 Fellini directed *Giulietta degli Spiriti*, he was already a filmmaker “arrived” and consecrated internationally by three Academy Awards for Best International Feature Film (Oscar) for *La Strada* in 1957, *Le notti di*

Cabiria in 1958 and *8 ½* in 1963. Moreover, in a filmography mostly in black and white, he also experimented for the first time the colour in the episode “Le tentazioni del dottor Antonio” in *Boccaccio '70* (1962), however in that film the use of colour was no different from the one that the directors of the other episodes did. In a few years, he built two alter egos: Marcello Mastroianni, who embodies the creative and tormented part of it at the same time and Giulietta Masina, who represents his fascination for the world of the circus and in particular for the white clown, the one who would like to subvert society's rules, and replace concrete reality with imagination. His career continues with many other films and culminated with the Honorary Academy Award in 1993 given to honour his long career as filmmaker. Fellini died the same year and was followed few weeks later by his lifelong wife and companion Giulietta Masina.

The LSD session

In the summer of 1964 Federico Fellini was treated with a single dose of LSD by Dr Servadio one of most prominent Italian psychoanalysts. Together with Fellini Dr Servadio and a nurse attended the session. Fellini's words were also recorded with a magnetophone. In a later interview he explained that this single with LSD experience had a significant effect with his perception of colours. This is the experience in his own verbatim words: “This In order to try to understand what colors really are in a detached way, you have to become a yogi. . . Also the experience of making a color picture can be a spiritual experience. [LSD] was a bit of a disappointing experience. I have not the memory of feeling a special sensation, but the doctor gave me an explanation, and I agree with him. He said that an artist lives always in the imagination, so the barrier between sensorial reality and his imagination is very vague; an artist is always here and there. . . Anyway I remember I had some exaltation about colors. I saw colors not like they normally are—we see colors in the objects, you know; we see objects that are colored. I saw colors just like they are, detached from the objects. I had for the first time the feeling of the presence of the colors in a detached way” (BBC interview transcribed by Corbella 2011).

Methods

Our qualitative analysis of the impact that LSD had on Fellini's work is based on the phenomenological method. Phenomenology has been already used to assess creativity influenced by psychedelics. Different authors have conceptualised the framework in which psychedelics work, Girm et al. (2020) for instance put the creative process within Dynamic Framework of Thought. In their view, creativity is the product of different mental states, rather than one.

Therefore, also the psychedelic state can be considered a mental state that facilitates creativity and should be considered in the Dynamic Framework of thought.

Other authors believe that the psychedelic experience and subsequent descriptions of pre-objective and pre-subjective sphere of “wild world” or “wild being” as defined by Merleau-Ponty have a hyperassociative structure and therefore psychedelic experiences can be classified as fantasy activity. They argue that the most important element of the psychedelic non ordinary state of consciousness is the *hyperassociative capacity*, that can foster imagination and creativity (Szummer et al., 2017). According to Preller and Vollenweider (2018) during the psychedelic experience the individuals go through a continuum of changes in the perception-hallucination domain culminating with increasing arousal and ego-dissolution. This way psychedelics have a deep effect on sensory perception, emotion, cognition, and creativity.

Because Fellini’s films highly autobiographical and personal, we could argue that they reflect the director’s subjective experiences before and after the use of LSD. To the best of our knowledge this is the first time that phenomenology, used in a 3rd person perspective, is used in a case study analysing a sequence of films, to assess the effect that an event, in this specific case the use of LSD, had on creativity.

The description and the comprehension of personal experiences are fundamental not only in the clinic of mental disorders, but in every science and art dealing with humans (Sass, 2017). The phenomenological method can be useful not only to describe subjective experiences, but also search for their conditions of possibilities – the structures of subjectivity that underpin the experience of reality, which, when modified, may determine abnormal or psychopathological life-worlds (Fuchs, 2010; Stanghellini and Ballerini, 2008). The life-world is the world where we live in, the original, obvious, and unquestioned foundation of everyday acting and thinking. Next to the common-sense world we all more or less share, there are several frameworks of experience, as for example, fantasy worlds, dream worlds, and psychopathological worlds. We could argue that the change in the framework of experience can manifest itself with symptoms but also can spark creativity. The experience of time, space, body, self, and others are the basic dimensions of the life-world within which gives the framework of our way to experience and make sense of reality (Stanghellini and Mancini, 2017; Stanghellini and Rossi, 2014).

In this paper, we assess the following dimensions of the life-worlds depicted and narrated in Fellini’s movies, including its characters (the actors’ physiognomy – intended as their facial characteristics and expressions – and their behaviour), scenarios (the setting in which the characters play and the plot develops) and editing (i.e., the film technique also called *montage* through which a series of shots are sequenced suggesting the passage of time):

1. *Lived time* is the way the person experiences time (which must be distinguished from the time of the clock or “objective” time). Every experience receives its specific significance and value from its temporal profile. This dimension of the life-world, i.e., time flow, is particularly explicit in the editing, e.g., flashbacks.
2. *Lived space* is the way persons lives space. This space is based on the relationship of the person to her world as a situated and embodied entity. This dimension is revealed through the movies’ scenarios, e.g., dream-like atmospheres or the costumes’ colours.
3. *Others* are a key factor in a person’s life-world since the majority of everyday relations are grounded on pre-reflexive encounters with other persons. The others’ mental states, including their emotions, beliefs, and desires are directly expressed in their actions and are typically grasped as meaningful in an emergent, pragmatic context. This dimension becomes manifest in the movies’ characters and their expressive behaviour, e.g., grotesque characters.
4. The *lived body* is the body as it is experienced from the first-person perspective and must be distinguished from the physical body. Fellini’s experience of his own body (as well as his own selfhood, see below) can only be inferred from the way his alter ego’s (e.g., Mastroianni) behaves in his movies
5. *Selfhood* is also fundamental dimension of one’s life-world. The notion of Self comprises the “pre-reflexive Self”, the most primitive form of self-consciousness rooted in the lived body. It is neither conceptual nor linguistic, but a primordial contact or acquaintance with oneself. Next to this dimension of self-consciousness there is an experience of one’s own Self that implies the possession of a *concept* of oneself. This is the Self as a narrative identity—the Self that tells stories about itself that exists in those stories and conceives its identity in terms of those stories. The narrative Self is strongly related to one’s lived time and as such it emerges in Fellini’s editing.

Materials

We compared Fellini’s movies completed before and after his LSD experience in Summer 1964. We particularly focused on the following movies: *La Dolce Vita*,⁸ *1/2, Giulietta degli Spiriti*, *Fellini Satyricon*, *Roma*, *Il Casanova di Federico Fellini*

In Table 1: we list Fellini’s films before and after the moment when he used LSD. The English name is the one published on Internet Movie DataBase (IMDB).

Phenomenological assessment of the films pre and post LSD

Fellini’s experience with LSD is certainly not unique, we already mentioned that many intellectuals and creative

Table 1. Fellini's filmography, the last two columns mark the films done before and after the LSD experience.

| Date | Original Title of the Film | Title in English | Before LSD | After LSD |
|------|--|--|------------|-----------|
| 1952 | Lo Sceicco Bianco | The White Sheik | X | |
| 1953 | L'amore in citta' – Agenzia Matrimoniale | Love in the city | X | |
| 1953 | I vitelloni | Spivs | X | |
| 1954 | La Strada | La Strada | X | |
| 1955 | Il Bidone | Il Bidone | x | |
| 1957 | Le notti di Cabiria | Nights of Cabiria | x | |
| 1960 | La dolce vita | La dolce Vita | X | |
| 1962 | Boccaccio '70 – le tentazioni del signor Antonio | Boccaccio '70 – le tentazioni del signor Antonio | X | |
| 1963 | 8 ½ | Federico Fellini's 8 ½ | x | |
| 1965 | Giulietta degli spiriti | Juliet of the Spirits | | X |
| 1968 | Tre passi nel delirio – Toby Dammit | Spirits of the Dead – Toby Dammit | | X |
| 1969 | Fellini Satyricon | Fellini Satyricon | | X |
| 1970 | I clowns | The clowns | | X |
| 1972 | Roma | Roma | | X |
| 1973 | Amarcord | Amarcord | | X |
| 1976 | Il Casanova di Federico Fellini | Fellini's Casanova | | X |
| 1979 | Prova d'orchestra | Orchestra Rehearsal | | X |
| 1980 | La città delle donne | City of Women | | X |
| 1983 | E la nave va | And the Ship Sails on | | X |
| 1986 | Ginger e Fred | Ginger and Fred | | X |
| 1987 | Intervista | Intervista | | X |
| 1990 | La voce della luna | The voice of the moon | | X |

people used this substance for therapeutic, experimental, creativity enhancement and recreational reasons. In Fellini's case, however, we have clear documentation about when and how he used LSD (Kezich, 2007) and also, we know the fact that he was experiencing a personal and creative crisis. We can, therefore, look at how LSD has unequivocally changed his experience and representation of reality. Cinema is a form of art that more than any other is suitable for an investigation into these phenomena.

Time

The time flow and perception are very variable in all of Fellini's films. According to the circumstances, time can be still, aggregated in lumps (moving at normal speed in certain scenes and going faster in others), or proceed with fast breaks (e.g., jumping from the past to the contemporaneity or for the antiquity to modernity). In the introductory scene of the post-LSD films *La dolce vita* there is a sharp contrast between ancient and modern Rome and a jump in time with the helicopters flying from the past, above a Rome with sheep and ruins, to the present, above the EUR (Esposizione Universale Roma – a new futuristic quartier built for the 1942 Universal exposition that never took place because the Second World War) with new (for the time) and futuristic buildings. In post-LSD films, time can also flow backwards, like in *Roma* during the scene in the underground when the actors go from the present to the Roman time. Time can be also slowed down for instance in *Casanova*, when the

protagonist is in the cell time is lived as a slow decadence. The most remarkable change after the LSD experience, however, is the introduction of flashbacks that become essential in the narrative structure of his films, as is the case with *Roma* in which time shifts constantly between the present (1970s), the 1940s (when Fellini arrives in Rome for the first time) and the 1930s (the author childhood in Rimini). These flashbacks however are somehow lived by the protagonist of the film (in Rome, this is Fellini himself) in an immediate way without any element of reflection and elaboration. In a way these flashbacks represent an element of *reflective time* that somehow interfere with narrative time, that is a story chronologically consistent consciously elaborated by the author. These abrupt changes in time are characteristic and contribute to give the dreamy and surreal image to Fellini's films where the demarcation of the past (even remote) and the present, and between the dreams and the real are somehow blurred.

Space

The representation of space changes and evolves in Fellini's films. In pre-LSD films such as *La dolce vita* and *8 ½*, for instance, there is often the contrast between open and limitless space (the airport when Anita arrives, the beach where Guido flies) and small, crowded chaotic spaces (Via Veneto, the traffic jam in *8 ½*). This trend is also visible in post-LSD films such as *Roma* or *Satyricon*. In Fellini's first film post-LSD *Giulietta degli Spiriti* there is a mixing between the

“real” space and a “metaphysical” one where the spirits belong. In the scene when the protagonist goes through a slide in the swimming pool there is also a distortion of space represented by a sudden expansion during the transition from a narrow cuniculus to a large open space full of light and colours (the swimming pool), in a fashion that reminds of the birth process.

The perception of lights and colours change significantly post LSD use. He shot, before using psychedelics, an episode of the Film Boccaccio '70 called “le tentazioni del Dottor Antonio” using colours (following the dictate of the producer). In this film the colours are not particularly bright and there is no significant contrast. In *Giulietta degli spiriti* – which is also his first post-LSD work – however, the colours are bright, neat often with great contrasts. Perhaps they are “just like they are, detached from the objects” a description that Fellini made about the perception of colours he had while on LSD. The colours and the light “hit the eye” of the viewer and achieve an important psychological effect. The atmosphere thus becomes surreal or hyper-real. The accentuation of the lights and of the colours in *Giulietta degli Spiriti* forces the spectator to notice elements that would otherwise be overlooked and the whole situation turns from being familiar to appearing unfamiliar and strange. The use of colours, however, evolves during Fellini’s career and in later films (perhaps with the fading of the memory of the LSD experience). For instance, in *Roma* and in *Amarcord* the colours are mild and with less contrasts in scenes that represent a reminiscence, often nostalgic, of the past. The present instead has colours and light that are not altered.

Body and others

The body is a very important feature in all of Fellini’s films. The body is often seen as a means of expression, often adorned, sometimes to the excess. Changes in the body representation before and after the use of LSD are remarkable. This compound is known to have psychodysleptic properties and one of its effects is to change the experience of the body of the person using it, but also the perception of the body of other people (Kraehenmann, 2017). This phenomenon has most likely happened also in Fellini’s experience and has influenced his subsequent artistic production. In his post-LSD films, the characters become often distorted, grotesque and with exaggerated features - often sexual details such as breasts and buttocks. Also in pre-LSD films Fellini represents women in the most sensual way possible (e.g., Anita Ekberg in *La dolce vita* can be seen as an archetype of the diva); however, after the LSD experience body distortions become extreme. Female characters are often excessive and grotesque (the Saraghina, the tobacconist in *Amarcord*, even Sandra Milo in *Giulietta degli spiriti* is somehow excessive as compared with the same actress in pre-LSD *8 ½*).

In Fellini’s movies, often the others are seen with awe and curiosity, sometimes with voyeurism, in other occasions with empathy. It is also noticeable, from *Giulietta*

onwards a growing use of characters that are clearly deformed and abnormal: very obese people, dwarves and crippled people, grotesque faces. This phenomenon culminates in *Satyricon* and *Rome* and has been most likely influenced by the use of LSD. Finally, in the post-LSD era, there is a growing interest in transsexuality (the Master Bisha in *Giulietta degli spiriti* and the hermaphrodite, a demigod in *Satyricon*), represented however with fascination and in a non-biased or judgmental way.

Self

The transformations of Fellini’s self-perception and self-representation can obviously only be inferred watching his movies from a third person perspective. Despite the fact that the distortion of the self or ego are central to the psychedelic experience (Nour et al., 2016) it is difficult to infer a change from watching the films. Fellini himself, however, when he talks about LSD experience states that his therapists told him that being an artist, his boundaries between the real and the imagination are constitutionally blurred, in a way that he experiences an ego dissolution without using psychedelics. In his films, however, he shows a certain criticism and irony about power and classes (the fascist regime, the Church often seen as hypocritical, the nobility lost in their past without any active role to play anymore, the bourgeoisie that shows a degree of moral corruption and greediness). A relevant component of this is Fellini’s attitude towards the female gender. This is encapsulated in his view about Rome (at the end of the film *Roma*) when he tells to Anna Magnani: “*You could be the symbol of the City. Rome seen as she-wolf and vestal, aristocratic and beggar, gloomy and ridiculous*”. Fellini’s attitude towards women, seen as object of desire, often represented with very evident sexual characters, in the post-LSD phase becomes excessive and caricaturist.

Discussion

Federico Fellini has been a very prolific film director and screen play writer producing some of the most relevant films in cinema history. His films were internationally acclaimed and inspired other film makers and intellectuals. An adjective – *felliniesque* – described by the Oxford dictionary as “*relating to, characteristic of, or reminiscent of Fellini, his films, or his style; often specifically: fantastic, bizarre; lavish, extravagant*” was coined after him.

The felliniesque features of Fellini’s production are epitomized in his movies’ characters, which in his post-LSD films (in particular *Satyricon*, *Roma*, *Amarcord* and *Casanova*) are more and more caricatures whose bodily physiognomy is distorted, reflecting a metamorphosis of *otherness* and (partially) of *embodiment*. Also, costumes and scenarios are different in the pre- and post-LSD periods, showing an evolution toward bizarreness and exaggeration in the experience of otherness and space that

culminates in *Satyricon*. It is also interesting that Fellini has chosen as an inspiration Petronius' *Satyricon* (Kezich, 2007: 252), one of the most bizarre and unusual Latin novels. In the movie, there is no classic elegance and proportions. There is a significant shift toward using characters that are deformed, they either have physical deformity or they are dressed and have a make-up that makes them misshapen. Fellini in this film does not just use deformed individuals, but also costumes and the scenario are grotesque and distorted, far from an accurate and philological reconstruction of ancient Rome.

Like other intellectuals of his time, Fellini used – under medical supervision – LSD, in a moment of personal and creative crisis. This psychedelic compound was used, before being banned as an aid in psychotherapy (psycholitic or psychedelic therapy) as well as a catalyst for creativity. Federico Fellini used LSD a Sunday in summer 1964, after he completed his masterpiece *8 1/2* and while he was working on his next film *Giulietta degli Spiriti*. This is his own account of the session: “In order to try to understand what colours really are in a detached way, you have to become a yogi. . . Also the experience of making a colour picture can be a spiritual experience. [LSD] was a bit of a disappointing experience. I have not the memory of feeling a special sensation, but the doctor gave me an explanation, and I agree with him. He said that an artist lives always in the imagination, so the barrier between sensorial reality and his imagination is very vague; an artist is always here and there. . . . Anyway I remember I had some exaltation about colours. I saw colours not like they normally are—we see colours in the objects, you know; we see objects that are coloured. I saw colours just like they are, detached from the objects. I had for the first time the feeling of the presence of the colours in a detached way” (Corbella, 2011).

Fellini's account that was somehow minimising the effect of the LSD session as he mainly described the session in terms of its effect on his perception of *colours*. Yet, this is an important clue because the next film he did - *Giulietta degli spiriti* – was his first film in colours (with the exception we mentioned before of *Boccaccio 70* that was only an episode of a film made by 3 directors where use of colour was imposed by the production and not chosen by the director, Fellini, for instance shot his next film *8 1/2* in black and white), characterised by the very bright tints of the costumes (often with sharp contrast, e.g., green and red) and of the scenarios. This event is consistent with a paper mentioned by Corbella (2011) reporting that artists treated with LSD presented “alteration of figure/ground and boundaries; greater intensity of color and light. . . symbolic and abstract depiction of objects; and fragmentation, disorganization, and distortion”. In a following paper, stated that “all of the artists who participated in a creativity research project said that LSD not only radically changed their style but also gave them new depths to understand the use of colour, form, light, or the way these things are viewed in a frame of reference.

Their art, they claimed, changed its essential character as a consequence of their experiences.”

It is remarkable, therefore that the first film post-LSD, *Giulietta degli Spiriti*, stands out for the use of colours. The colours are very bright and neat. Most of the scenes are full of light with a big chromatic contrast. The feminine costumes are also flamboyant, with extravagant hats and sharp contrast of colours. Men instead are dressed in a more traditional way (except for the members of the entourage of the Guru) keeping however strong contrasts, for example, white shirt and blue suit. The second post-LSD film, *Satyricon*, instead presents a significant evolution. Colours are not bright and neat, rather they are subdued, even in scenes shot in open air, possibly because the experience of LSD somehow has lost some of its influence. Fellini started working on it in 1967 and, with his words the aim of the film was to re-invent the boundaries between the real world and the world of dream and imagination: “to eliminate the borderline between dream and imagination: to invent everything and then to objectify the fantasy; to get some distance from it in order to explore it as something all of a piece and unknowable” (Grazzini, 2019).

Successive films like *Roma* present, for instance both characteristics (alteration of colours and forms): in the scenes that narrate Fellini's childhood in Rimini, colours are more subdued and the characters have a fairy-tale features (the school master with a grotesque beard, the maids with pink cheeks etc.) while in the scenes set in Rome colours are more bright but there are more deformed individuals (obese women, hunchback, weird prostitutes, etc.).

A metamorphosis in the experience of colours, that is, the perception of colours as independent from worldly objects, so that colours stand out autonomously as salient features of reality, is a profound transformation of the perception of space. Corbella (2011) highlights that, thanks to LSD, colours in Fellini's movies would show their essence freed from any link with objects—what Huxley called “the miracle of naked existence” (Huxley, 1954). This is part of a process that accentuates Fellini's expressionistic trend, “leading him to interpret reality as a permanent vision in which pure senses prevail over intellectual elaboration” (Corbella, 2011: 23). Moreover, according to Corbella (2011), this mystical experience of space and colours matches “the narrative core of *Giulietta degli spiriti*, which is focused on the mediumistic abilities of the main character: like mescaline takers, many mystics perceive supernaturally brilliant colors, not only with their inner eye, but even in the objective world around them” (Corbella, 2011: 23).

We can argue that also in later films the abnormality of the colour representation and the distortions of the characters remain a signature of Fellini's style. We cannot claim that all these changes were solely caused by LSD but we argue that this psychedelic compound had a role in this change of approach and affected his creativity pushing it toward surreality.

The metamorphosis of lived space in Fellini's post-LSD production is also reflected in the experience of *sounds*.

Voices are often heard independent of any visible source, “they are whispered as though they came from an inner perception that is dissociated from the characters with whom they should be associated”. Voices, and sounds in general, are so to say *disembodied* – a characteristic that is also typically found in the experience of persons with schizophrenia (Stanghellini, 2005). “Ambient sounds (wind, fire, sea), para-atmospheric sounds (white-noise hiss e, hypertrophic fan sound i), electronic sounds (f, g, h, j), and paramusical sounds (b, k) follow one another like acoustic epiphanies. They aim to be experienced per se, almost systematically released from univocal semantic connotations, unless they are able to build unusual synesthetic relationships with elements of the sensitive visions.” (Corbella, 2011: 23).

Conclusions

After the use of LSD, it is clear from our analysis that Fellini’s films drastically changed and became more distinctive – so distinctive and original that an adjective was coined to describe them *felliniesque*. The world depicted in his post-LSD movies includes major changes in the perception of space, time and others. These changes become conspicuous mainly through the use of colours and sounds, which became perceptual epiphanies independent from “real” objects in the world, in the representation of the human body, that became often grotesque and caricatural, and in the use of editing through which a distortion of the experience of time is expressed through puzzling and disorienting flashbacks. Through a detailed assessment of the experiential changes occurring in Fellini’s pre- and post-LSD films, our analysis can shed light into the psychotropic properties of this compound, including its psychotomimetic, psychedelic and psycholitic properties, and contribute with a sound methodological approach to the progress of the debate on “psychedelic renaissance” we are witnessing in the present time.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article

References

- Corbella M. Transcription grammatical adaptations by M Corbella in 2011 of an interview that Fellini gave at the BBC presumably in 1965. It is contained in the extras of the 2002 DVD of *Juliet of the Spirits* (Criterion Collection).
- Corbella M (2011) Notes for a dramaturgy of sound in fellini’s cinema: The electroacoustic sound library of the 1960s. *Music and the Moving Image* 4(3): 14–30.
- Fuchs T (2010) Phenomenology and psychopathology. In: Schmicking D and Gallagher S (eds) *Handbook of Phenomenology and Cognitive Science*. Dordrecht: Springer, pp. 546–573.
- Girn M, Mills C, Roseman L, et al. (2020) Updating the dynamic framework of thought: Creativity and psychedelics. *Neuroimage* 213: 116726. Epub 2020 Mar 8. PMID: 32160951.
- Grazzini G (2019) *Sul Cinema*. Il Saggiatore, Milan, Italy, p5.
- Grinspoon LB (1979) *Psychedelic Drugs Reconsidered*. New York: Basic Books, Inc., Publishers.
- Guarnaccia M (2017) *Il Grande Libro della Psichedelia*. Milan (Italy): Hoepli Editore S.p.A.
- Harrison A (2006, January 16) LSD: The Geek’s Wonder Drug? *Wired*.
- Hofmann A (1980) *LSD: My Problem Child*. New York: McGraw-Hill.
- Huxley A (1954) *The Doors of Perception*. London (UK): Chatto & Windus.
- Kezich T (2007) *Federico. Fellini, la vita e i film*. Milan, Italy: Feltrinelli, p252.
- Kraehenmann R (2017) Dreams and psychedelics: Neurophenomenological comparison and therapeutic implications. *Current Neuropharmacology* 15(7): 1032–1042.
- Leary T (1983) *Flashbacks: An Autobiography*. Los Angeles: J. P. Tarcher, Inc.
- Nour MM, Evans L, Nutt D, et al. (2016) Ego-dissolution and psychedelics: Validation of the ego-dissolution inventory (EDI). *Frontiers in Human Neuroscience* 10: 269.
- Pollan M (2018) *How to Change Your Mind - What the New Science of Psychedelics Teaches Us About Consciousness, Dying, Addiction, Depression, and Transcendence*. New York: Penguin Press.
- Preller KH and Vollenweider FX (2018) Phenomenology, structure, and dynamic of psychedelic states. *Current Topics in Behavioral Neurosciences* 36: 221–256. Erratum in: *Curr Top Behav Neurosci*. 2017 Jul 15: PMID: 28025814.
- Samorini GD (2019) *Terapie Psichedeliche vol. I*. Milan (Italy): ShaKe.
- Sass LA (2017) *Madness and Modernism Insanity in the Light of Modern Art, Literature, and Thought* (revised edition). Oxford, New York: Oxford University Press.
- Stanghellini G and Ballerini M (2008) Qualitative analysis. Its use in psychopathological research. *Acta Psychiatr Scand* 117: 161–163.
- Stanghellini G and Rossi R (2014) Pheno-phenotypes: A holistic approach to the psychopathology of schizophrenia. *Current Opinion in Psychiatry* 27: 236–241.
- Stanghellini G and Mancini M (2017) *The Therapeutic Interview in Mental Health: A Values-Based and Person-Centered Approach*. Cambridge: Cambridge University Press.
- Stanghellini G (2005) Schizophrenic consciousness, spiritual experience and the borders between things. *Transcultural Psychiatry* 42(4): 610–629.
- Servadio E (1967) La verità sull’LSD. *Rassegna Italiana di Ricerca Psichica* 1–2, 7–20.
- Sessa B (2008) Is it time to revisit the role of psychedelic drugs in enhancing human creativity? *Journal of Psychopharmacology* 22(8): 821–827.
- Szummer C, Horváth L, Szabó A, et al. (2017) The hyperassociative mind: The psychedelic experience and Merleau-Ponty’s “wild being”. *Journal of Psychedelic Studies* 1(2): 55–64.
- Tanne JH (2004) Humphry osmond. *BMJ: British Medical Journal* 328(7441): 713.