Jazz, improvisation and a social pharmacology of music

Jörg Fachner

Abstract

Extending personal expressivity and relationship abilities during improvisation is a goal for active music therapy approaches. In creatively improvised music we hear how humans perform in the world and how the ‘sounding’ of their identity (Aldridge, 1996). Jazz music of the 20th and 30th has been dance music and musicians extended the structure of contemporary songs with improvisations (“embellishment”) during the played tunes. Vividly played improvisations, with a unique personal style and sound, made jazz musicians, their bands and live-clubs famous. Since the beginnings of jazz, the consumption of drugs and its relationship to creativity and music has been controversial. Research on cannabis and music perception has shown that there are certain changes in perceptual and cerebral processing which influences performing and creating music. Music therapists working with drug-experienced clients report problems with clients and their drug-related history of music perception. State-dependent perceptual learning processes might resemble during therapy processes. This paper will describe cultural issues and features of drug-induced music perception.
A Social pharmacology of music?

Social pharmacology is a discipline of pharmacology, that focuses on the usage of drugs as consumption behaviour. These behaviours are observed and described in their social environments and are interpreted with pharmacological, sociological and psychological methods. The aim of this approach is to understand or describe patterns of use and resulting risk behaviour. This data leads to adjusted prevention and harm reduction strategies, mental health proposals or modification of law, as we are observing in the 2002 British debate on rescheduling cannabis as a class C drug. Class C includes drugs, that are not freely accessible, but allowed for prescription and recommendation to patients. Private use and possession of small amounts can be tolerated. Being caught with cannabis will in future be treated no more seriously than illegally possessing other Class C controlled drugs like sleeping pills and steroids. This mitigation of the Cannabis laws is what scientists have proposed since the La Guardia Report of the 1940es (Solomon, 1966) or even the Carter Administration in the late 1970s.

PARTY DRUGS

The practice of social pharmacology investigations might be a statistical description of drinking patterns of club visitors, that is, which drinks were ordered, how long they stayed, or a survey on rave party attendees and their consumption patterns of Drugs. Based on 1,853 questionnaires derived from adolescent students participating in a Canadian Student Drug Use Survey, Adlaf (Adlaf & Smart, 1997) described the prevalence of rave attendance and the drug-use profile of rave attendees. For two-thirds of rave attendees, drug use was significantly elevated. Although rave attendance is not prevalent, experienced drug users are attracted to raves, as earlier generations of drug users were attracted to rock concerts.
One study (Forsyth, Barnard, & McKeganey, 1997), with 1523 school children in Glasgow, aimed to find a relationship between the preference of music styles and drug experience. Although few children in this study had ever taken the drug ‘ecstasy’ (MDMA), fans of rave music were more likely to have used drugs than those who preferred other styles of music. This relationship held true across a range of drugs used, across two geographical areas, over time and controlling for age, gender and parental social class.

Why are concert and rave party attendees attracted by certain drugs? One answer might be found in the action of drugs that change perceptual styles and filters. Another might be found in the personality or identity performance of an individual who takes part in cultural activities or habits, or a third answer might hold true that drugs have been used at parties since early days of humanity. However, these two studies mentioned above seem to back up lay prejudgments about a connection between specific music styles and certain drug effects. Is it possible, as we know from musical preferences, that there is something like a social pharmacology of music? This means that certain drugs lead musicians to certain musical styles and performance because some musicians are more attracted by a specific drug? Let me cite Mezz Mezzrow, a Jazz Musician from the 1930s who became much more famous for his marijuana joints for friends like Louis Armstrong, Hoagy Carmichael, Thommy Dorsey or others than for his playing. But by the way, he was not a bad musician. This is how they felt about alcohol and music:

“We were on another plane in another sphere compared to the musicians who were bottle babies, always hitting the jug and then coming up brawling after they got loaded. We liked things to be easy and relaxed, mellow and mild, not loud or loutish, and the scowling chin-out tension of the lushbands with their false courage didn’t appeal to us.”
Besides, the lushies didn’t even play good music – their tones became hard and evil, not natural, soft and soulful – and anything that messed up the music instead of sending it on its way was out with us. We members of the viper school were for making music that was real foxy, all lit up with inspiration and her mammy. The juice guzzlers went sour fast on their instruments, then turned grimy because it preyed on their minds.” (Mezzrow, 1946 p. 94)

DRUGS AND SOCIETY

In 1998, the International Narcotics Control Board in Vienna released a report that pointed to rock musicians, their songs and lifestyle as a certain reason for increased drug consumption in the 1990’s. Their drug-related lifestyle had an impact on young people’s decision to take drugs.

“By far the greatest influence on many young people in developed countries, as well as in some developing countries, is the promotion or at least the tolerance of recreational drug use and abuse in popular culture, particularly in popular music. Some lyrics of songs advocate, directly or indirectly, smoking marijuana or taking other drugs and certain pop stars make statements as if the use of drugs for non-medical purposes were a normal and acceptable part of a person’s lifestyle. Popular music has quickly developed into a global industry. In most countries, the names of certain pop stars have become familiar to the members of almost every household. With such globalization of popular music, messages tolerating or even promoting drug abuse are reaching beyond their countries of origin”. (INCB, 1998)

One study, published by the US National Clearinghouse on Drug Abuse from 1999, researched the contents of popular films and song lyrics for drug related issues. After all mostly alcohol and nicotine have been mentioned, followed by cannabis including those lyrics that mention legalization issues (Roberts, Henriksen, & Christenson, 1999).

In April 2003 the US government signed a child abduction bill and attached the Rave-Act and the Clean-up act to this bill. Section 305 of the Clean-up Act stipulates that:

„Whoever, for a commercial purpose, knowingly promotes any rave, dance, music, or other entertainment event, that takes place...
under circumstances where the promoter knows or reasonably ought to know that a controlled substance will be used or distributed in violation of Federal law or the law of the place where the event is held, shall be fined under title 18, United States Code, or imprisoned for not more than 9 years, or both."

Any concert promoter, nightclub owner and arena or stadium owner could be fined and jailed, since a reasonable person would know some people use drugs at musical events.

JAZZ AND MARIJUANA

Anyhow, the history of attributing rock and pop artists as drug mediators for young people, who would start to imitate a drug-poisoned lifestyle, goes back to the early days of the 20th century. Since the beginnings of jazz the connection between cannabis, music and creativity has been discussed controversially (Aldrich, 1944; Barber-Kersovan, 1991; Böhm, 1999; Boyd, 1992; Fachner, 2002a; Fachner, David, & Pfotenhauer, 1995; Jonnes, 1999; Mezzrow, 1946) and after all - politically exploited as Shapiro or Sloman explained (Shapiro, 1988; Sloman, 1998). Harry Anslinger, 1930s Head of the US Federal Bureau of Narcotics put more jazz bands in jail than he could count, as mentioned in an interview with David Musto (Musto, 1997). Famous musicians -as we can read in the list-were observed and some sentenced for possession of cannabis. In front of the US 1937 congress, Anslinger talked about “satanic voodoo jazz” and those ‘reefer smokers’ that would make white women want to have “sex with Negroes”. Furthermore, he described smokers as being violent and insane. He was also ‘able’ to segregate between good and bad musicians. The good ones play notes as written down on a score but the bad jazz ones would add more notes in between what is written down because of using cannabis and satanic voodoo rhythms (Sloman, 1998). Anslinger obviously used the negative popularity of mostly black Jazz musicians to support his position.
So, what happened those days back in 1934? The New York based ‘Litary Digest’ reported:

“While whites often buy reefers in Negro night clubs, planning to smoke them elsewhere, sometimes they manage to gain entrance to a mixed-colour party. The most talked of reefer parties – excluding those of Hollywood – take place in Harlem. Early in the morning, when night club singers, musicians and dancers are through work, they gather informally – these affairs apparently are never arranged – and have a few drinks.

With their uncanny power for wheedling melody out of even the worst pianos, it isn’t long before the crowd is humming, softly clapping hands or dancing in sensuous rhythms that have never been seen in nightclubs. There is little noise; windows are shut, keeping the smell of smoking weeds away from what might be curious nostrils.

Nor there is any of the yelling, dashing about, playing of crude jokes or physical violence that often accompany alcoholic parties; under the influence of marijuana, one has a dread of these things. Sensuous pleasure is the beginning and the end: Let us enjoy pleasure while we can; pleasure is never long enough” – as Propertius put it.” (Digest, 1934)

Playing Jazz music, smoking cannabis and talking in jazz slang “can also be interpreted as a ‘way of life’ characterized by specific identity postures and social performances of the artist’s world, bohemians, the ‘night people’ etc.” concluded Curry in his participating observations of jazz musicians and their audiences (Curry, 1968: 238).

What becomes obvious in these lines is that there is a connection between a certain lifestyle, identity, time and place of listening to and creation of music. This is what many of us as music therapists experience in our work with clients as well. Personal history and lifestyle lead to an individual form of performed identity expressed in the preference of a certain music marking passages of personal experience.
Psychedelic drugs – and cannabis has mild psychedelic effects - are preferably consumed in a setting suitable for the interaction of consumer and environmental cues to temporarily expand psychic reality. In certain psychotherapeutic approaches an attempt is made to stimulate and evoke unconscious material for psychoanalysis. Psychedelic therapy used music and fantasy themes as support and guidance in the psychedelic setting. The beginnings of “Guided Imagery in music” were based on such an aspect of psychedelic therapy. Certain pieces of mostly classical or jazz music were conducted in a thematic therapeutic sequence to facilitate emotions, evoke peak experiences, uncensored responses and associations and to open a path to the inner world of the client’s unconscious. All this happened in a relaxed secure and guided setting of psychedelic therapy. Anti-toxicants for a possible bad trip were at hand and therefore the patient could let go (Bonny & Pahnke, 1972). However, the rising subculture of hippies transferred core elements of psychedelic therapy into cultural symbols, and musicians went on stage to create public trips into sound as an acoustic surrounding for the ‘pot- and acidheads’ on their ‘trip’ into inner and outer space. Here, music was also used and created as a guide to keep the acidheads ‘on track’ during the hallucinogenic state.

Early research on music and drugs was published as basic research on music perception, production and therapeutic use (Bonny & Pahnke, 1972; Eagle, 1972). One research project published in the German area of music therapy done by Weber in the 60's focussed on the use of psilocybin, a fungus with psychoactive ingredients (Weber, 1974). His work was in the tradition of model psychosis research. The method of a model-psychosis was invented to compare psychotic states of hallucinations with drug-induced hallucinations and to discuss its noetic and clinical considerations (Gouzoulis-Mayfrank, Hermle, Thelen, & Sass, 1998; Leuner,
The aims of this approach are to describe pathological states like the productive states of schizophrenia, which seem to be analogous to some experiences made during psychedelic drug action. In Weber's research a drug-induced altered music perception should serve as a model of functional regression to lower levels of cognitive development.


Research with psychoactive substances and music perception might help to show models of neuro-physiological functions of state dependent recall and cognition. Currently a research group is working on the neuro-physiological exploration of fantasy systems using results from psychedelic research (Emrich, 1990; Leweke, Giuffrida, Wurster, Emrich, & Piomelli, 1999). In recent animal studies a new brain system -the cannabinoid receptor system (CBR)- has been discovered in the brain, and the immune system. This discovery has gained a lot of new research and offered new treatment strategies for Multiple Sclerosis, Alzheimer’s Disease, Glaucoma, Nausea, Tourette syndrome, Schizophrenia, etc. The interested reader is forwarded to the textbooks and overviews published (Grinspoon & Bakalar, 1997; Grotenhermen & Russo, 2002; Solowij, 1998).

Music therapists working with drug-experienced clients, suffering from addiction report problems that they have with music perception and
altered states. (See article from Tsvia Horesh in this issue). State-dependent perceptual learning processes might resemble processes occurring during therapy. We can imagine that once a client has experienced a way of life involving states of drug-use, than emotional aspects of memory will be reactivated when certain cues are heard in the music, or during movements in dance, and this may interfere with the aims of therapists. Such problems are not ‘in the music’ or the substance itself, but connected to the brain reward system, which is linked to perceptual learning and habituation of emotional states like euphoria, flow, joy or pleasantness. Drug-induced positive moods and states of euphoria, music-making or listening or other pleasing activities like eating, sex or play is mediated through the brain reward system (Blood & Zatorre, 2001; Lukas, Mendelson, & Benedikt, 1995; Wise & Bozarth, 1985). Patients with a history of drug-induced euphoria may experience a state-dependent recall induced from certain individually perceived cues, which have been experienced together with drugs. The connection of joyful experiences intensified by drug action is producing a strong memory account and craving for such situations might lead to an addiction. Hereby the addictive potential of different drugs and their specific pharmaco-kinetic and -dynamics (Julien, 1997) has to be taken into account. These learning processes have to be focused and transformed in therapy by offering new ways of experiencing.

Becker in his classic sociological deviance study of Marijuana use among jazz musicians was able to show that recognizing and enjoying the effects has to be learned (Becker, 1963). Jazz culture preferred the euphoric plateau of cannabis action, the period of laughter (Siegel & Hirschman, 1985) and emotional enjoyment, because it made them ‘hot’ to play, their auditive impression on music was enhanced and they improvised more expressively (Curry, 1968; Shapiro, 1988). Hippie culture seemed to be
more interested in the second phase of \textit{contemplation} and visionary state, as Baudelaire described the three stages of cannabis intoxication in the midst of last century (Ch. Baudelaire, 1988). After all the third phase of vivid hallucinations - as Ludlow wrote (Ludlow, 1857) - depends on high doses (Ames, 1958) and a certain set and setting (Blätter, 1992); therefore the third stage is drowsiness and sleep. The typical behaviour of the stoners in the second and third stage created the term of ‘being stoned’, (remember Bob Dylan’s famous verse “everybody must get stoned”). ‘Stoner’-cultures as well as the oriental and Chinese opium smokers preferred to contemplate, being in the orientalistic state of ‘khif’, as referred to in the use of hashish as an intensifier of music perception and production (Gelpke, 1982).

In his book entitled „Drugs and Rock’n Roll“, Shapiro advocates the thesis that each popular music style in this century was also the expression of a certain life style, to be seen as related to the preferences in drug consumption on the part of the artists and the scene around them who coined this style (Shapiro, 1998). From a socio-pharmacological view, the preference of a subculture for a certain drug has always been a kind of fashion to “turn on”, i.e. to put them into certain physiological conditions in order to experience ordinary and extraordinary events, occurrences and moods more intensively and from a different perspective.

“…the opinion that under the influence of marijuana you can make better jazz since you lose your inhibitions and get better ideas and more self-confidence was common among the jazz scene”. (Shapiro, 1988 p. 38)
Drug action and improvisation

The Anslinger papers, which contain many notes about drug use among jazz musicians of the 30es, contain the following report about an arrested musician in the early thirties:

“This man has confirmed that the consumption of marijuana among musicians, above all those playing in so-called “jazz bands”, is wide-spread, since under the influence of the drug they seems to attain a certain gift which they do not normally possess. In the words of the individual mentioned before: they become hot (Shapiro, 1988 p. 63).

The term “hot” coined in this context describes an attitude and musical mood with a euphoric emotional quality and “an excessive heat of expression” (Behrendt, 1974 p. 20). Being hot meant being good, being expressive and flexible in the music and in general embodying a progressive attitude and approach. In the words of Behrendt:

“You do not really ‘play’ on your instrument but rather ‘speak’ through it...” (Behrendt, 1974 p. 20).

By the way, doesn’t it remind us of what music therapists hear in the form and quality of patient’s improvised play? More the form and communicative aspect of what and how it is played rather than the way it is judged from a technical stance? This jazz root of improvised music serves as an essential blueprint of music therapy work, as it offers a diagnostic tool for the therapist for listening after the session and for the patient as an expression of his musical identity.

But, is it true then, that the emotional quality of the individual musical expression was enhanced with marijuana. In another of Anslinger’s quotations, which has the negative connotation of musicians keeping themselves awake with marihuana, there is an implicit indication here to the first phase of intoxication induced by marihuana, character-
ised by euphoria and laughter, as Baudelaire described it (C. Baudelaire, 1966). Chemically synthesized marihuana was developed by Adams, a researcher at Anslinger’s laboratories, and introduced in the treatment of depression as an antidepressant and euphoretic called “Pyrahexyl” (see Behr, 1982 p. 204; Stockings, 1966). This euphoretic and energizing element of the effects of marihuana seemed to be the favourite effect at that time, and highly appreciated by musicians in tendentially faster music. It is interesting to note that the term “jazz” – according to Behrendt – was derived from the dialect or jargon expression ‘jass’, ‘jasm’, for ‘speed’ and ‘energy’ in sports and games and sometimes also used with sexual connotations as ‘gism’ (see Behrendt, 1974 p. 21); the term thus stands for a description of temporal processes and intensity.

With inhibitions falling away, one might of course be tempted to try out things one would not have dared before. However, John Hammond e.g. complained that marihuana “hellishly interfered with the sense of time” (in Shapiro, 1988). Becker quotes a musician on his cannabis experience in the music:

“...We played the first tune for almost two hours – one tune! We got on the stand and played this one tune, we started at nine o’clock. When we got finished I looked at my watch, it’s a quarter to eleven. Almost two hours on one tune. And it didn’t seem like anything. I mean, you know, it does that to you. It’s like you have much more time or something.” (Becker, 1966: 74)

TIME EXPANSION

However, all kinds of processes occur in time. We are ‘patterned frequencies in a matrix of time’ improvising our identity in the personal set and setting of situations we’re in, as David Aldridge has proposed (Aldridge, 1989). In the experience of time as kairos, time structures are connected to the personal time. Time as chronos is connected to processes concerned with defined geographical and societal agreements. Kairological time allows a variety of time perceptions and refers to the right time to do
something, to decide or act directly in the here and now. A talk can seem like hours, even if it lasts only 20 minutes or it can be exciting and feels like only a few minutes. There must be specific moments, situations and interests that interfere with a personal kairological set of emotions, habits and attitudes. We need specific settings and surroundings that make us experiencing an event as acceleration (‘rush’) or a slowing of time.

Cannabis influences this personal set of time frames. There is a feeling of time being stretched or expanded or perceived as slowed down or sped up. 95% of 151 participants of Charles Tart’s study “On Being Stoned” agreed to the following statement:

“Time passes very slowly; things go on for the longest time (e.g. one side of a record seems to play for hours)” (Tart, 1971).

In most experiments, stoned subjects failed to reproduce a correct metric counting of time intervals, and tended to expand the estimated units. Jones reported that a 15 second time interval was expanded to a mean of 16.7 seconds, with deviation up to 19 seconds estimated under the influence of oral THC, while being counted correctly in normal state (Jones & Stone, 1970). A reverse relationship also occurs. Melges declared a speeding-up of the inner clock as responsible for expanded and slowed perception of chronological time and for producing temporal disintegration failures.

“A subject becomes less able to integrate past, present and future, his awareness becomes more concentrated on present events; these instances, in turn, are experienced as prolonged or timeless when they appear isolated from the continual progression of time” Melges concluded (Melges, Tinklenberg, Hollister, & Gillespie, 1971: 566). This reminds of some of the counter-culture focus ideas on the ‘here and now’ feeling. Emotion-related time and information selection processes are co-
ordinated in the limbic midbrain, hippocampal and cerebellum parts of the brain, regions found to host high amounts of the recently discovered cannabinoid receptors (Joy, Watson, & Benson, 1999). Another brain imaging study of time perception correlated cannabis-induced changes of cerebral blood flow in the cerebellum (Mathew, Wilson, Turkington, & Coleman, 1998).

Assuming that this endogenous cannabinoid system is involved in time processing in general, the scope of this experimental research is not that far from research on time processes in music perception and its therapy. (See also the papers from U. Maas and M. Dobkin de Rios in this issue).

**RHYTHM**

If cannabis induces a subjective time expansion, music, and especially the rhythm must be perceived as expandable. In experiments Aldrich (1944) as well as Reed (1974) reported cannabis-induced changes on the rhythm scale of the ‘Seashore test’. Despite the controversy discussions about the Seashore’s usefulness, after cannabis intoxication rhythm was perceived more distinctly and especially casual users had an obvious improvement in the rhythm task (Reed, 1974). Most of Aldrich’s subjects – two of them musicians - said that they had the subjective impression of perceiving tones and rhythm better after cannabis intoxication.

Jazz musicians of the 1920s and 1930s had to play contemporary tunes the whole night for dancing, so an embellishment of song structures was needed to maintain interest and cannabis seemed to provide a nice inspiration to create a larger vision for doing this. With Marihuana, “The swing musician ascends new peaks of virtuosity” was written in a 40’s Life magazine article (in Aldrich, 1944). Cannabis’ first euphoric level seemed to help them to express vividly, intensive with self-confidence, groove and jive in the music, reported the psychiatrist Winick (C. Winick, 1959; Charles Winick & Nyswander, 1961). Jazz music featured
improvisational elements within the structure of songs. Musicians expanded the melodic, harmonic and rhythmic structure of dance songs in their improvisations. Dr. Munch, the physician in Anslinger’s team, said in a 70es Interview to Larry Sloman.

“... if you are a musician you’re going to play the thing the way it is printed on a sheet. But if you’re using marihuana, you’re going to work in about as twice as much music in-between the first note and the second note. That’s what made jazz musicians. The idea that they could jazz things up, lift them up...” (Sloman, 1998: 147).

Changed time estimation may thus temporarily permit an increased insight into the space between the notes, as if music is heard with a time lens but in real time. Urchs refers to the ‘space between’, as a noise ratio relationship between information units that enables us to generate new patterns (Urchs, 1986). This ‘insight’ might enable a skilled musician to preconceive arising melody lines with suitable harmonic changes over a certain groove of rhythmic structures. This kind of foresight due to a prolonged kairological time scaling in the flow of improvisation might open up a more vividly playing and intensity scaling of expressive elements. Vividly played improvisations with a unique personal style and sound made jazz musicians, their bands and live-clubs famous.

Anyhow, for Lindsay Buckingham cannabis seemed to work like a refreshing of his listening abilities:

"If you’ve been working on something for a few hours and you smoke a joint, it’s like hearing it again for the first time” (Boyd, 1992: 201).

George Harrison would have agreed with him:

"I think that pot definitely did something for the old ears, like suddenly I could hear more subtle things in the sound” (Boyd, 1992: 206).
Globus did another study that backs up this idea of a temporarily broader, extended perception of music elements.

Caldwell reported an increased sensitivity to intensity thresholds. Loudness parameter detection was enhanced. He couldn’t find cannabis-induced changes in basic auditory functioning of the outer and inner ear (Caldwell, Myers, Domino, & Merriam, 1969). Globus referred to Caldwell’s work and Becker’s conclusion (Becker, 1966) that cannabis effects are learned. He conducted a research design with three different groups. All of them learned how to adjust a loudness level of 800 mV (81 dB) sound level on a 610 Hz frequency. One group learned the loudness level in a ‘stoned state’, while the other groups learned the loudness level in a normal state. The task was to adjust the loudness only by an internalized imagery of the learned criterion tone. The last two groups smoked either a placebo or a THC-joint at a defined time period. After these two groups received the joint, they failed impressively in adjusting the loudness level. Only the marihuana learners stayed stable in their adjustment (Globus et al., 1978). As a result, Globus suggested an expansion of the auditory measuring units as responsible for the experience of an enhanced music perception.

**Conclusion**

It is a goal for active music therapy approaches to extend personal expressivity and relationship abilities during improvisation. In creatively improvised music we can hear how humans perform in the world and how they achieve identity (Aldridge, 1996). In an EEG study Fachner showed, that the EEG topography of music listening activity did not changed but exhibited more amplitude power on the alpha range when listening to music in an intoxicated state (Fachner, 2002b). The EEG
topographies of music listening exhibited inter-individually different EEG gestalts but were intra-individual stable. This means that music is perceived and processed inter-individually differently but intra-individually the listening strategy is linked to personality and the way music is perceived. This might serve as means for demonstrating electrophysiological objectivity for individual therapy indication and treatment. Furthermore, these individual differences become visible when comparing quantitative EEG (QEEG) Brain maps derived from combined single case studies. In a quantitative study with results gained from a bigger number of subjects these individual features would be averaged to a statistically acceptable profile but loose the important information as visible in individual topographic QEEGs and treated as visual phenomenological comparison of EEG-gestalts.

We can see that marihuana has a certain action profile, that has an impact on playing and listening to music while being under the influence of cannabis. Becker demonstrated that musicians were able to habituate to the cannabis effects (Becker, 1963) and used time expansion issues and emotional enhancement of intensity scaling (Globus et al., 1978) for their artistic expression. A reduction of inhibitions can offer a more direct way of emotional expression and this made jazz musicians hot in their playing (Shapiro, 1998). Jazz music has been one of the contributions to improvisational abilities of musicians and served as a tool which music therapists.

From the stance of modern receptor science, the external agent of cannabis docks on the internal endogenous receptor and stimulates the system more intensively. This shows that cannabis only works as an enhancer of what is already there and does not add something completely new. One will not be suddenly able to play an instrument without learning, but his preconceptions about what is possible and ways of perceiving
the acoustic field will be changed. When generations of users report that they can listen to sound more distinctly and that cannabis enhances their appreciation of music, why shouldn’t a patient benefit?

Some pioneering work on the use of psychoactive substances during music therapy done by Peter Hess and colleagues has shown that cannabis might work as an adjunct helper in therapy (Hess, 2002). One Alzheimer patient, receiving an oral dose, was able to concentrate more deeply on sound than before and was attending the therapy process with much more cognitive attendance than before. Cannabis might help to broaden and intensify state-dependent recall of music memory structures and situated cognition of emotional learning. Furthermore, as is known from medical research, cannabis has a neuro-protective function, which hinders free radicals from destroying nerve cells. Here, the pharmacological action of cannabis might be usefully combined with processes initiated in music therapy.

Perceptual filter lowering of psychedelic drugs was used in the beginning of GIM to evoke a free flow of associations in psychotherapeutic context. Helen Bonny always stressed that the use of drugs was not really needed for doing guided imagery in music but in a personal communication she agreed that the levels of emotional involvement were different with or without substances and so was the flow of ideas and associations.

A social pharmacology of music might help us to understand the use of drugs in certain contexts of music activity. The use of drugs is predominately reported in the context of addiction. However, there is a culture of using drugs in medical, psychological, traditional and cultural settings, which is not problem-related and uses drugs for certain purposes (see Blätter, 1990) as outlined above (see De Rios and Maas in this issue). For music research, these cultures are of interest because they help to under-
stand ways of perceiving and processing music in different states of consciousness.

References


---

References


Curry, A. (1968). Drugs in Rock and Jazz music. *Clinical Toxicology, 1*(2), 235-244.


und Setting aussergewöhnlicher Bewusstseinszustände, Frankenthal, Germany.


