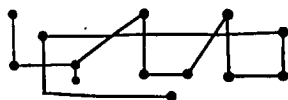
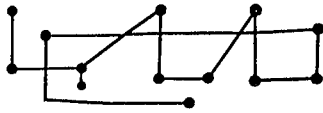


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IMPROVISATION: AN ALWAYS-ACCESSIBLE INSTRUMENT OF INNOVATION



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CREATIVITY YESTERDAY AND TODAY

IN *ECCE HOMO* (1889) Nietzsche wrote: “A thought flashes up like lightning, with necessity, unflinchingly formed—I have never had any choice” (Nietzsche 1979, 102–3). This description of how his thoughts emerge corresponds to a popular idea of the creative process that has persisted until the present day: The striking artistic idea appears suddenly; it is unexpected and obsessional. Creativity is considered to be a miracle that cannot be understood or predicted. Composers such as Mahler, Pfitzner and Schönberg enforced the authority of this “romantic” image by destroying their sketches and thus preventing others from insights into their creative processes (cf. Danuser 1991 and Neumann 1993).

Because rational explanations of the creative process could not be found, metaphysical reasons filled in the explanatory gap: Since antiquity, the ability to create artistically and scientifically has been considered a fortunate gift from God, a daemon, or a muse; since the seventeenth century, a person who has the ability to create has been named a genius.¹ Within the discourse about genius, newness, originality and uniqueness were defined as indispensable criteria of the creative product. The mode of production (creativity) and the character of the resulting product (newness, originality, and uniqueness) became thus two sides of the same phenomenon.

Within these parameters—the creative product is new, original, and unique, and emerges unpredictably—musicologists such as Dahlhaus called into question the idea of improvisation in music, like the cadenza in the traditional solo concert, and improvisation in jazz. Their objections rose from the observation that the improvised parts in compositions claim to spontaneously create music *ex improviso*, a term whose direct translation means “unforeseeable,” while simultaneously they purport to be derived from a creative act. Thus, the paradox emerges that the inspiration must be ready on cue, at a particular moment, although the creative performance of musical inventions is *per definitionem* a random, uncontrolled event which cannot be produced on demand (cf. Dahlhaus 1979, 10).

In the 1960s and 1970s certain types of indeterminate compositions were conceptualized which rely completely on the improvisation of the performers. Thus, the success of the piece depends solely on the paradoxical concept that is inherent in improvisation. In order to produce new, original, and unique sounds, creativity must appear in improvisation. However, because improvisation happens on demand, creativity, a phenomenon that *per definitionem* is unforeseeable and uncontrolled, also must happen on demand.

IMPROVISATION IN AVANT-GARDE MUSIC

Against this background the question arises: What ideas did avant-garde composers in the sixties and seventies associate with improvisation, that allowed them to include improvisation in their compositional programs and render the success of their performances conditional on the appearance of creativity on cue, even though creativity is unreliable and unforeseeable? To answer this question, I will deal with both the American and the European traditions, concentrating on John Cage, Christian Wolff, Karlheinz Stockhausen, Dieter Schnebel, and Vinko Globokar. Assuming

that the individual programs of the composers are well-known, I will emphasize specific features that they share with each other, especially those that mark improvisation as creative performance.

According to Cage, Globokar, and Stockhausen, the reason for indeterminate music and, therein included, for improvisation, was generally a movement against rationally conceived twelve-tone and serial music in which the appearance of the unplanned was viewed as a technical defect.² The enforcement of improvised aspects in composition contributed to the reintegration of spontaneous and creative features into music.

Another important reason for fostering improvised indeterminate features seemed to be the production of the new and unique, which should be stimulated by improvisational creative spontaneity. Cage's philosophy "to let sounds be themselves" (Cage 1960a, 10), which was developed in the mid-1950s, included the idea "that each performance of such a piece of music is unique, as interesting to its composer as to others listening" (Cage 1960a, 11). This concept required creativity of the performers, because, contrary to indeterminate compositions, like *4'33"*, which relied on random events, there were types of indeterminate music that could not be realized just by randomness. *Variations II* (1961), for instance, required the performer's creativity in, first, combining different layers of the graphic score, printed on transparencies, and, afterwards, in producing sounds, stimulated by the graphics.

Approximately fifteen years later Stockhausen coined the term "intuitive music" to distinguish his concept from traditional improvisation. The pieces in *Aus den sieben Tagen* (1968), which is a paradigm for intuitive music, consist of instructions, stimulating in the performers a certain attitude which should overcome self-control and provoke creativity. Practicing intuitive music by playing these kinds of pieces was, according to Stockhausen, "a technique for myself as composer and as interpreter to extend these lightning moments of intuition" (Stockhausen 1978, 138–39).³ Because intuition has been considered the essential factor for the production of the new and unique since the eighteenth century, Stockhausen's emphasis on intuition implies the need for new and unique music.

In the concepts of both, Cage and Stockhausen, it is implied that improvised performances, which rely on creativity, should lead to new, unique, and unknown sounds; whereas in the concepts of Wolff (the youngest of Cage's associates), Schnebel, and Globokar, the quality of newness referred to nonmusical aspects, accompanying the improvised performance. In the introduction of *Burdocks* for one or more or orchestras (1970–1) Wolff invited the musicians to

gather and decide, or choose one or more representatives to decide, what sections will be played in what arrangement. It must also be decided: how many and which players will make up an orchestra for a section. (Wolff 1971, 1)

Within the scope of politically engaged questions in the early seventies, Wolff's compositions should contribute to the improvement of the society.⁴ The instructions to *Burdocks* aimed to exercise social and political acts in the musical field. By arranging these kinds of musical situations Wolff aimed to stimulate communicative processes in groups that conceived new ways of social and sociopolitical behavior. Wolff said: "New music should actually be music that is adequate for a new society. This would be its newness" (Wolff 1975, 10).⁵

Schnebel shared Wolff's goals. According to Schnebel, performing "Gesums," one piece of *Schulmusik I* (1974), trains musicians to act jointly.⁶ Additionally, his purpose was to incite creative abilities—abilities that, in Schnebel's opinion, were underestimated in an authoritarian society, and that lead *per definitionem* to something new and unique.⁷ Therefore Schnebel states in his introduction that *Schulmusik* stimulates spontaneous creation of music.⁸

As different as the concepts of these composers might have been, they all relied on common principles: the composers prepared the general conditions of the performance because they aimed to provoke new and unique sounds and new social behavior through spontaneous processes. The spontaneous performance and the resulting new and unique phenomena served as a counterweight against the dominating, universally controlling rationality—a rationality that the composers not only diagnosed in serial music but, sharing the critical attitude with leftist social and political movements in the 1960s and early seventies, that they also criticized as a defect of an "administered world" (Adorno 1983, 333) and an authoritarian industrialized society. Improvisation is—as Globokar states—the antibody of an established rationality (Globokar 1979, 33). It is an instrument to overcome the present social and compositional conditions.

However, the question I posed at the beginning of this essay remains unanswered: Why could the composers of avant-garde music in the sixties and seventies rely on the emergence of creative processes by playing spontaneously on cue? My hypothesis is that the musical procedures were inspired by a scientific understanding of the creative ability that differs profoundly from the "romantic" understanding. In the second half of the nineteenth century, there emerged creativity research at a specifically scientific kind, and this awoke broad interest in the fifties and sixties. In the

following section, I will show how it laid the groundwork for the increasing interest in improvisational methods in avant-garde music.

RESHAPING CREATIVITY

In the 1860s, a development had started that changed the understanding of creative imagination. Disregarding the traditional “romantic” image—that creativity is a fortunate gift which cannot be fixed by rational terms—scientists, foremost among them Sir Francis Galton, tried to reveal the mystery of creativity. Galton developed a “theory of hereditary genius” using statistical methods (Galton 1892, vi). However, it is the year 1950 which is generally regarded as *the* turning point with respect to interest in creativity, when Guilford gave his presidential keynote address to the American Psychological Association (Guilford 1968, 140). In 1949 Joy Paul Guilford started the Aptitudes Research Project (ARP) at the University of Southern California which, over a period of twenty years, was supported by the Personnel and Training Branch of the Psychological Sciences Division of the U.S. Office of Naval Research (Guilford and Hoepfner 1971, XIII), and which sought to determine the intellectual abilities of the test subjects. It is scientifically striking that Guilford classified creativity as an intellectual ability. In 1971 Guilford described his own project, ARP: “The area of intellectual abilities receiving most attention from the ARP was that of creativity or creative-thinking abilities” (Guilford/Hoepfner 1971, 9–10).

The project was obviously carried out against the backdrop of military goals—Guilford himself stated in 1968: “The coming of peace [after World War II] called for ever-accelerating efforts in a contest of intellects. Inventive brains were at a premium, and there were never enough” (Guilford 1968, 140). Therefore the project placed “considerable emphasis upon rational predictions of unique abilities to be expected” (Guilford and Hoepfner 1971, XII). It seems that such research intended to make creativity available for the scientific and military competition between the United States and the Soviet Union during the cold war—particularly after 1957 when the shock of Sputnik demonstrated that the Soviet Union was the leader in space research. The reason for Guilford to treat creativity as part of intelligence, generally considered to be grounded on rational, objective, and thus intersubjectively valid principles, was that, in order to instrumentalize creativity in the Cold War, he needed to restrict its features of irrationality and randomness. And indeed Guilford must have been well satisfied with the achieved results, because they suggested that “the assessment of the intellectual resources of man

can now take on features of a psychoengineering" (Guilford and Hoepfner 1971, 361).

In general, according to the terminology of the psychologist Robert W. Weisberg, the "genius" view was replaced by the "ordinary" view (Weisberg 1993, 241). Creativity lost its image of being the opposite of rationality; it became a mastered aspect of everybody's intelligence. Creativity could be measured and quantified and—in the end—could be instrumentalized and operationalized toward several goals.

The research emphasis on creativity evoked, for example, the interest of E. Paul Torrance, an educational psychologist, who was largely influenced by Guilford's factor-analytic research. Under the title "The Creative Potential of School Children in the Space Age," he stated at a conference in 1960:

More and more insistently, today's schools and colleges are being asked to produce men and women who can think, who can make new scientific discoveries, who can find more adequate solutions to impelling world problems, who cannot be brainwashed, men and women who can adapt to change and maintain sanity in this age of acceleration. This is the creative challenge to education. (Torrance 1963, 4)

As Torrance's quote implies, in the United States the interest in creativity for educational aims threw the light on the significance of practicing creative thinking for the development of an educated personality. The ability to think creatively was considered to complement the ability of rational thinking.

In Germany, considerations of creativity stimulated pedagogues to pick up former ideas of education and merge them with the new psychological knowledge about creativity. They revived firstly the concept of the "creative child," which goes back to the beginning of the nineteenth century (see Jöde 1928). It highlights the importance of the pupil's self-guided inventive activities as against the passive reproduction of precomposed pieces. Secondly, the German pedagogical discussion of creativity emphasized improvisation as a catalyst of creativity—an idea that was developed in the Weimar Republic. Thirdly, the concept of creativity in Germany in the sixties and seventies was influenced by the ideology of improving the human being. In the Weimar Republic as well, the promotion of creative abilities generally, and as an aspect of musicality specifically, was spurred on by the vision of a new "man" (Kühn 1923, v). Interestingly, the program for a renewal of the human species, in the twenties was related to eugenics, a discipline that aims to ameliorate the human race through

breeding. The term “eugenics” was coined by the above-mentioned Galton, who was the first to address creativity scientifically.

I propose to show . . . that a man’s natural abilities are derived by inheritance, under exactly the same limitations as are the form and physical features of the whole organic world. Consequently, as it is easy, notwithstanding these limitations, to obtain by careful selection a permanent breed of dogs or horses gifted with peculiar powers of running, or of doing anything else, so it would be quite practicable to produce a highly-gifted race of man by judicious marriages during several consecutive generations. (Galton 1892, 1)

Within the vision of eugenics, creativity was (and is still today) a highly valued human trait. Despite the generally shared mystical image of creativity, Galton started research in order to understand the laws which govern the inheritance of talents, normal as well as exceptional.

Improvisation in the twenties was considered to contribute to the same project of human reform by stimulating creativity, but contrary to Galton the project was carried out by practical means (like Guilford’s “human engineering” project), not by genetic means. Therefore, improvisation in the sixties and seventies was seen as a pedagogical instrument and thus as a tool of both cultural and social renewal. With respect to culture, it was employed as a weapon against mass music.⁹ The model was avant-garde music (Ritzel 1979, 68). Regarding society, improvisation as creative method contributed to the goal of improving social behavior—an idea which emerged within the attempts to democratize society in the nineteenth century and which was taken up, in 1968, when student protests and the new political left articulated the need to radically change socio-political conditions. As the German pedagogue Roscher stated in 1970: “The results of a political and social revolution are jeopardized in the long term if it fails to realize and to *rationalize* the aesthetic revolution” (Roscher 1970, 22; my emphasis)¹⁰—a revolution which included the establishment of improvisation.

It soon became clear that the reconceptualization of creativity had applications for industry as well. Despite intensive research which attempted to predict creativity, creativity never lost its features of irrationality. However, it was demonstrated that the general conditions that allow creativity to appear could be improved. On this basis, economists stressed the importance of introducing creativity in manufacturing industries and companies. In contrast to the view of the nineteenth century, which focused only on the unique and inspired master, never his associates, these economic projects were obviously based on a Guilfordian

understanding of creativity. They proposed to engender creativity, and thus productivity, by encouraging a cooperative, interactive group dynamic (cf. Nyström 1979, 57 and Crosby 1968).

One of the most extraordinary examples of the use of the new creativity concept for economical goals is the relatively recent concept of Weston H. Agor: intuitive decision making as an approach for Top Management. In 1981 Agor published a book that "tells you how to use your intuition to help make key decisions at work and in your personal life" (Agor 1986, XII). Agor adopts the new scientific outfit of creativity by redefining the term "intuition." Although intuition traditionally is experienced as a potency that effects exceptional results at the price of unreliability, Agor declares intuition to be "a very rational and logical decision making skill rather than a 'non-rational' skill as it is often characterized by many psychologists and academicians" (Agor 1986, XII). Thus, contrary to the traditional experience, the economist produces the illusion that there is a magically reliable tool for decision making.

In summary, creativity changed its image. Scientific research affected the practical approach to creativity that had been marked by a rationalist impetus since the 1950s. Instead of being a fortunate talent of a singular genius, creativity became a common ability, that could be taught to anybody. It developed into a commodity available for political, scientific, educational and economic maximization, progress, and innovation—characteristics that are a definite part of the value system of modernity. This new image of creativity repressed the original characterization of creativity as an irrational and mystifying act.

CREATIVITY IN AVANT-GARDE MUSIC: AGAINST OR FOR MODERN RATIONALITY?

Creativity research stimulated an intense discussion in almost every area of society in both in the United States and in Germany: it was applied to the military, to economics, science, art, politics, and the personal sphere. Books about creativity started to be published in the early sixties and increased significantly from then on. A person who participated only a little in current events, might well have been aware of the predominance of the new idea of creativity. The terminology composers used in the sixties and seventies indicates that they, in any case, had adapted the new concept of creativity.

Promoting intuitive music, Stockhausen wrote in 1969:

We have passed many states of a primarily rational music . . . between 1950 and about 1965. . . . Now the task is to increase the experiences beyond these limits and let them affect the limited field of the rational. (Stockhausen 1971, 124)¹¹

Although Stockhausen exposed intuitive music as an instrument which overcomes rationality, he nevertheless, like Guilford, treated creativity, or in his words, "intuition," as a controllable ability. Thus, Stockhausen stated during a lecture in 1973: "In intuitive music it becomes extremely obvious which musician has the most control over himself" (Stockhausen 1978, 123).¹² If, as previously quoted, Stockhausen wanted to develop intuition as an always-accessible personal ability, intuition must be controllable. Thus, it is clear that in Stockhausen's program intuitive music did not overcome rationality. Rather, creativity changed its essence, assumed features of rationality and, thus, fed the machinery of rationalization. Projects such as Stockhausen's and Guilford's carried out the mission of modernity and progress: the investigation and instrumentalization of the world by controlled procedures.

Although Cage and Stockhausen were clearly in different camps, they nevertheless shared an interest in controlling the creative act. Regarding indeterminate music, Cage stated "that composition is necessarily experimental" (Cage 1960b, 39). Even if his term "experimental music" belonged to the American tradition of Emerson, Thoreau, and Ives, which aimed to experience the environment through experimentation (cf. Shultis 1998, xvii), Cage's statement that an "experimental action is one the outcome of which is not foreseen" (Cage 1960b, 39) revealed a correspondence with the scientific tradition in so far as, if the composer created conditions (like the transparencies in *Variations II* for instance) which secured a higher probability, then the outcome would be new and unique.

Creative education . . . aims at a self-starting, resourceful, and confident person, ready to face personal, interpersonal and other kinds of problems. Because he is confident, he is also tolerant where there should be tolerance. A world of tolerant people would be peaceful and co-operative people. Thus creativity is the key to education in its fullest sense and to the solution of mankind's most serious problems. (Guilford 1968, 147)

Surprisingly, this quotation is not from a political or social leftist, but from Guilford, in regard to Torrance's educational aims. Therefore, Wolff's claim that improvisation should give rise to better social behavior

and Schnebel's insistence that art should be shaped by psychoanalytical knowledge with the goal of "self-experience and self-shaping" (Oehlschlägel 1975, 108),¹³ had dialectical features. They tried to overcome the authoritarian, coercive postwar society by using the tools that had just been developed by the same society to settle the Cold War. Against this background, Globokar's statement that "individual development makes sense only if it serves the collective creative activity" (Globokar 1979, 37)¹⁴ not only implied the reformed understanding of creativity, including the possibility that even a product of a group could be a creative act, but also indicated that the center of the reform process was no longer the individual but the needs of the social apparatus, to which the improvising person must adapt. The improviser was, as the literary theorist Günter Blamberger pointed out, "the vehicle rather than the responsible subject of the creative force" (Blamberger 1991, 29-30).¹⁵

In summary, creativity in improvisation in indeterminate music of the sixties and seventies was handled according to its new concept: Creativity was no longer the uncontrollable, mystic gift of a singular genius. Considered as a rational, controllable tool, it was used for attaining unique sounds (Cage and Stockhausen) or social improvements (Wolff, Schnebel, and Globokar).

CONCLUSIONS

Of course the connections which I have tried to show can be considered only as tendencies, which have been emphasized for the sake of my argument. On the one hand, the aim to make creativity rationally controllable is not a phenomenon only of the twentieth century. In the middle ages there was, for example, already a deep interest in developing methods of invention, using the *ars inveniendi* in rhetoric and philosophy. From this perspective the desire to dominate creativity seems to be an anthropological constant. On the other hand, the scientific exploration of creativity never erased the idea that the creative act is an extraordinary act of a genius. And it seems that these traditional features invisibly merged with the new Guilfordian view of creativity.

Nevertheless, against the scientific, political, and social horizon discussed here, the image of creativity in improvisational types of avant-garde music of the sixties and seventies must be revised. In contrast to the traditional opinion that creativity in avant-garde music participated in an antirational, antibourgeois and antiprogressive alternative movement, creativity in its new Guilfordian shape prolonged the value system against

which it intended to take action. Creativity in improvisational avant-garde music can be understood as a method of innovation and of progress. Insofar as they considered creativity a reliable tool and focussed the concepts of the compositions, avant-garde composers shared a typically modern attitude towards control and rationalization with politicians, scientists, pedagogues, and economists. In this respect, improvisation in music is less a phenomenon that overcomes modernity and anticipates postmodernity, than a phenomenon which extends modernity.

In *Die rationalen und soziologischen Grundlagen der Musik* of 1921, Max Weber argued that, since antiquity, musical progress is due to the rationalization of the primary parameters of music, which are: pitch, rhythm, harmony, and meter. This perspective suggests that serialism continued the process by also rationalizing the secondary parameters, agogic, timbre, articulation, loudness, and speed. The rationalization of one of the main components of composing, creativity, completes the development described by Weber. After all other possibilities of compositional progress and innovation had been exhausted during the development of Western European music of the preceding two hundred years, composers in the sixties and seventies seemed to feel a need for new compositional impulses. The functionalization of the creative dimension in improvised avant-garde music may have provided the possibility of maintaining the Enlightenment premises of progress and optimization in music.

NOTES

1. "Original Genius . . . is distinguished by an inventive and plastic Imagination, by which it sketches out a creation of its own, discloses truths that were formerly unknown, and exhibits a succession of scenes and events which were never before contemplated or conceived. In a word, it is a peculiar character of original Genius . . . to start new sentiments, and throw out new lights on every subject it treats" (Duff 1970, 89-90).
2. With respect to twelve-tone and serial music Globokar states: "Es gibt also keinen Zufall, kein Appellieren an die Intuition, kein Unvorhergesehenes—denn das Unvorhergesehene wird ja gleichgesetzt mit den Mängeln der technischen Realisierung" (Globokar 1979, 28).
3. "Ich möchte hier begreiflich machen, daß ich eine Technik für mich selbst als Komponist und Interpret zu finden suche—und auch für die anderen Musiker, die mit mir arbeiten—, diese blitzhaften Momente der Intuition auf bewußte Weise zu verlängern."
4. Wolff's politically engaged attitude was provoked by the Vietnam war (Duckworth 1995, 180).
5. "Und die Neue Musik sollte in diesem Sinn eigentlich eine Musik sein, die sich für eine neue Gesellschaft eignet. Darin würde ihre Neuheit liegen, und mit 'neu' meine ich etwas, das durchaus sozialisiert und demokratisiert ist."
6. "Bei der Gestaltung solcher Abläufe möge gemeinsames Handeln eingeübt werden" (Schnebel 1974, 12).
7. According to Tielebier-Langscheidt, Schnebel aimed to "make people act freely and self-responsibly, i.e. to provide them with a framework within which they can creatively develop and experience" ("Weit aus wichtiger und seinem pädagogischen wie ästhetischen Denken entsprechender erscheint es ihm, Menschen zu freier und eigenverantwortlicher Tätigkeit zu bringen, ihnen Rahmen zu geben, in denen sie sich kreativ entfalten und erfahren können" (Tielebier-Langscheidt 1980, 80).
8. *Schulmusik* stimulates a creation "whose motivations seek to release a concentrated and unmediated production of music" ("deren Anreize

die konzentrierte und unmittelbare Hervorbringung von Musik freizusetzen suchen") (Schnebel 1974, 1).

9. Friedemann for instance argued "that musically educated youths react to the currently vital music"—Friedemann means popular music—"without any addiction, even if we do not particularly influence them" ("daß musikalisch so erzogene Jugendliche der jeweils aktuellen Vitalmusik kritikfähig und ohne Suchterscheinungen begegnen, auch wenn wir sie nicht speziell beeinflussen") (Friedemann 1973, 15).
10. "Die Ergebnisse von politischer und sozialer Revolution sind auf die Dauer in Frage gestellt, wenn es nicht gelingt, ästhetische Revolution zugleich zu realisieren und zu rationalisieren."
11. "Wir sind durch viele Stadien einer primär rationalen Musik, im Fazit einer langen Tradition, gegangen zwischen 1950 und ca. 1965. . . . Nun besteht die Aufgabe, die Erfahrungen jenseits jener Grenzen stetig zu erweitern und auf den begrenzten Bereich des Rationalen einwirken zu lassen, damit bei Gott kein neuer Dualismus zwischen dem Intuitiven und Rationalen entsteht."
12. "Beim Spielen von Intuitiver Musik wird es ganz offensichtlich, welcher Musiker die meiste Selbstkontrolle hat."
13. "Da habe ich vor drei oder vier Jahren eine Arbeitsgemeinschaft für Neue Musik aufgemacht, die, wie gesagt, auf Schülerinitiative hin entstanden war: und wir fingen an, uns Dinge zu erarbeiten. Bei dieser Erarbeitung wurde ich, wurden wir in Gruppenprozesse verwickelt, und da bekam die Beschäftigung mit Psychoanalyse plötzlich etwas Konkretes, weil sie einerseits ein Mittel lieferte, solche Gruppenprozesse zu begreifen, und weil es mir plötzlich jetzt auch möglich schien, die Kunst von Erkenntnissen der Psychoanalyse her zu gestalten—und sie beispielsweise zu einem Mittel für Selbsterfahrungen, Selbstgestaltungen zu machen."
14. "Individuelle Entfaltung ist nur im Dienst kollektiver schöpferischer Aktivität sinnvoll."
15. "Die kreative Persönlichkeit gilt eher als bloßer Träger denn als verantwortliches Subjekt schöpferischer Kräfte."

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