0 There are certain rules behind complex and organic circumstances.

1 Are rules created by our desires to understand the circumstances?
or
Can existing rules be discovered through observation of the circumstances?

2 Does the rule explain all cases?
or
Are there inevitable exceptions?

3 How different is an observed exception, from an intentionally created exception?

4 Can we apply a rule to something, in order to observe differences evolving?

5 Can we call one thing “original” and another “copy”?
and
Do they have the same value?

6 Does a rule always lead to a single answer?
and
If there are several possible answers, how do we observe the differences?

7 Could there be a single rule explaining the whole world?
or
Will we never find out?

Jan Groenewold
Physician, Chef
interviewed on 27 February 2009

Luna Maurer
Jonathan Puckey
Graphic Designers
interviewed on 10 March 2009

Snejanka Mihaylova
Philosopher, Writer, Artist
interviewed on 31 May 2009

Peter van Bergen
Musician, Composer
interviewed on 10 June 2009

Ayumi Higuchi
Researcher, Interviewer, Editor
and Graphic Designer
from September 2008–

The tree spreads its branches and, as the years go by, its trunk get bigger and bigger and the branches more and more numerous. Every leaf at the top of the branches has a tube that goes through the trunk which keeps it in contact with the ground. [...] We can establish a rule of growth: the branch that follows is always slenderer than the one before it.

Drawing a Tree, Bruno Munari

1 Are rules created by our desires to understand the circumstances? or Can existing rules be discovered through observation of the circumstances?

5.634 This is connected with the fact that no part of our experience is at the same time a priori. Whatever we see could be other than it is. Whatever we can describe at all could be other than it is.

There is no a priori order of things.

Tractatus Logico-Philosophicus, Ludwig Wittgenstein

What Kind of Circumstances?

PvB: The history of jazz started at the beginning of the last century. It was a mixture of circumstances, where people from Africa, who have a different way of making music, mixed their music with the European style of music. If you would say that social circumstances created the music, that's absolutely true. That's why I asked you what you mean by circumstances. Circumstances also mean, for example, when you walk to the sea, you're in nature, you hear sound. If you follow the point of view of John Cage, an organisation of sounds and between the moments you start and stop listening music is being made.

Rules are Discovered

JG: I'm quite confident that many rules are discovered, and were already there. But they can only be found by the desire to find them, right? Especially scientists want to simplify the circumstances in order to find what is common to all circumstances. In that way they find a rule. Rules can only be discovered through observations of circumstances.

Rules are Created

SM: Reality exists entirely inside human understanding. We have, for example, rules of nature. Human beings discover their own place in the whole, because humans are a part of this unity. At the same time humans create nothing from nothing. Everything exists already. We create by combining things between them.

Rules & Desire

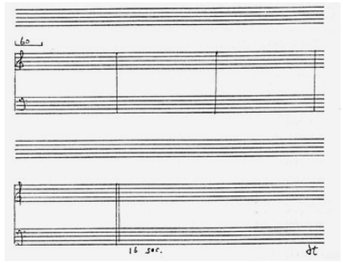
SM: In the first sentence you are talking about "our desires to understand." This can never be fulfilled.

PvB: My compositions? Depends. But I do always compose in such a way that I can improvise with it later. That's my direction. I make constructions of possibilities of how to go to a certain area. Within this construction I try to think which personalities work well, which is really jazz. The difference I think is, in jazz the percentage of interpreter or performer to composers is much bigger than other kinds of music. There you have

John Cage

4'33"

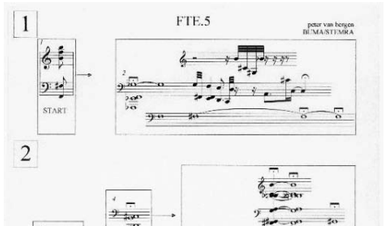
It was composed in 1952 for any instrument (or combination of instruments), and the score instructs the performer not to play the instrument during the entire duration of the piece throughout the three movements (the first being thirty seconds, the second being two minutes and twenty-three seconds, and the third being one minute and forty seconds). Although commonly perceived as "four minutes thirty-three seconds of silence", the piece actually consists of the sounds of the environment that the listeners hear while it is performed.



Peter van Bergen

FTE.5

instrumentation: ts.elgtr.elbgtr.p.perc.
written for the LOOS Ensemble



a certain freedom but it's very small.

Testing Rules

LM: We have done, yes. One day. Twice. We adjusted the rule because we thought that it would become more flexible or interesting. In the end we came up with a rule that we like.

Executing Rules

JP: So the function of the group came as a surprise. We didn't know how they were going to work or how the interplay of the group would develop. Going by train, I thought "This is going to end in a disaster." When we look back that's a kind of nice thing. You can take a controlled risk.

LM: But people got very tired after executing this for 2 or 3 hours, with their knees on the floor, rapidly, like a machine. They were really exhausted. They didn't enjoy it that much. Only afterwards they reflected "Fantastic!" But at the moment of execution, I think that half of them had fun, but the other half were thinking "Oh, what am I doing?" But I didn't care. It's good they think that. They're responding to what they have to do.

JP: There was one guy who was trying to make a smiley face but it was impossible. He couldn't do it.

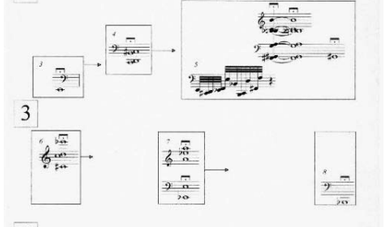
LM: Because they really had to do it quickly.

JP: And that's exactly what we didn't want. It was a sort of battle within humanity.

JG: ...and thinking about them. If you see the history of science it's quite often attempts to bring orders to all kinds of phenomena. And there's always the language of mathematics and numeric proportion. You can't make up a theory without numbers. You have to observe things in terms of numbers, in order to form a theory and to describe the phenomena.

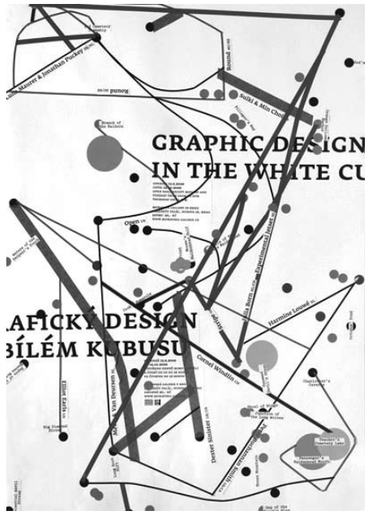
Illusion of Rules

JG: It's an illusion to think that you can make rules up. For instance, you can divide this table into atoms, knowing what they are (more or less). Within the atom there are electrons or protons... theoretically you can go smaller and smaller. There's no end, or we don't know. Some theories work well but we don't know what they mean or where their values are from. They are no longer about observations. People are just not happy with the state of affairs and start searching for more rules, which are not really based on concrete observations that we understand. There always has to be inputs for an idea.



The poster factory

[...] Each student received a design kit containing material to design the poster with. The kit contained different colors of tape, text-stickers and the rules that determined the design tasks of the workers. [...] The students sat in a circle in front of the posters and executed the design code every 30 seconds. After each iteration the posters had to be moved to their neighbours. This way none of the students had much control over the design process, they could only react to what had been done before or initiate something new.



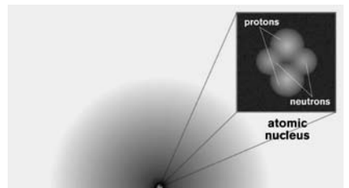
Graphic Design in the White Cube, Luna Maurer & Jonathan Puckey

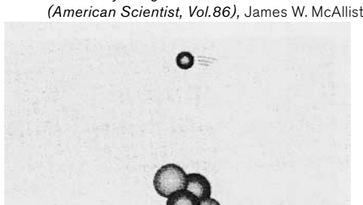
Atom

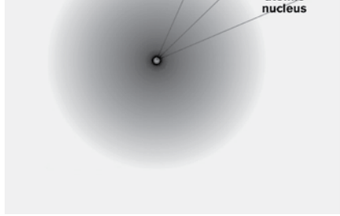
The atom is a basic unit of matter consisting of a dense, central nucleus surrounded by a cloud of negatively charged electrons. The nucleus of an atom is the very small dense region of an atom, in its centre consisting of nucleons (protons and neutrons). The size (diameter) of the nucleus is in the range of 1.6 fm (10^{-15} m) (for a proton in light hydrogen) to about 15 fm (for the heaviest atoms, such as uranium). Almost all of the mass in an atom is made up from the protons and neutrons in the nucleus with a very small contribution from the orbiting electrons.

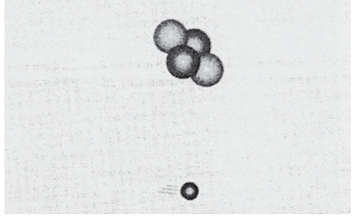
Eernest Rutherford's model of the atom as a mini-ature solar system with electrons orbiting the nucleus is aesthetically appealing for its classical visualizability, but it conflicts with data. As we now know, quantum particles are not like billiard balls, they do not have precise boundaries, and they do not follow precisely localized paths. The fact that a theory offers a visualization of phenomena does not guarantee its success.

Is Beauty a Sign of Truth in Scientific Theories? (American Scientist, Vol.86), James W. McAllister









Rules = Illusion ?

SM: ....or the beginning of the “illusion” of translation, because translation is the illusion of unity among different languages. Languages never have an external, objective point where they meet and coincide. Our mind creates this coincidence and it’s not external. The translation in the Rosetta Stone is a perfect example of utopia or illusion for me. It contatins three different languages: hieroglyphs, hieratic and Greek. The hieratic is used to describe everyday life, while hieroglyphs are the language of god. In this period humans can also be gods, like the Pharaoh. They communicate with hieroglyphs, spoken by only 1% of the population. So the idea that you can communicate through these languages is completely different from understanding. In the Rosetta Stone, our desire to know created the rule. This is our way to find parts of the unknown.

SM: The rule probably works. The illusion is the fact that the rule can reveal the matter people would like to organise. We can probably translate the text physically but the question is whether the translated text reveals the reality that is behind the original text. In this sense I think the translation is an illusion.

SM: For me, a reality beyond that level can also be achieved. But it’s a different kind of work. It’s not by way of rules.

Rosetta Stone

It is an Ancient Egyptian artifact which was instrumental in advancing modern understanding of hieroglyphic writing. The stone is a Ptolemaic era stele with carved text made up of three translations of a single passage: two in Egyptian language scripts (hieroglyphic and Demotic) and one in classical Greek. It was created in 196 BC.

2 Does the rule explain all cases? or Are there inevitable exceptions?

Holes in the Rule

JG: Lost. Maybe, yeah, that's a way of looking at it. I was thinking something different... For example if you observe things like plants and their particles particles.., questions still come up, like: "What is this particle"? When you zoom in, I don't think you'd ever get a satisfactory picture, though you can capture a mathematical property from a plant. I always think there are always exceptions in the sense that something in the theory doesn't work really, the theory never fully covers all the cases. It's like... little holes in the theory.

Borders between Exceptions & Norms

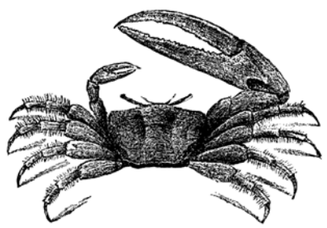
PvB: How to deal with instability in the construction of music. Let's say somebody flies away in an improvisation. He moves away from the musical construction and become hard to reach by their fellow musicians. He's inspired. He can do his own thing. That's possible. But sometimes people are very hard to get back. Even in this case, it's about percentages: how much a performer can fly away.

PvB: I can imagine that you would say that. Mostly it is said that in an improvisation people organise what they heard afterwards. In the moment you're going with the flow, you're trying to discover what's going on. Afterwards you might reflect on it, might be able to reconnect it.

SM: The exception is a very space-wise concept. If you think about us having a border and putting something outside that border, that's an exception. Almost geographical concept. In this sense it's very interesting how the exception creates a completely new space-wise relationship by including and excluding something.

Teucrium botrys (Germander, Leaf), Karl Blossfeldt

Asymmetry and important evolutionary traits. Handedness is an asymmetry in skill development in people and animals. Training the neural pathways in a skill with one hand (or paw) takes less effort than doing the same with both hands. Nature also provides several examples of handedness in traits that are usually symmetric. For example, Fiddler crabs, sometimes known as a calling crab, have one big claw and one small claw.



No Exception

SM: In Wittgenstein, this question is extreme because he completely denies the possibility that something exists out of the system of references.

Norm in Chaos

LM: We expected these posters to look at random, but we found it's not random at all. You see patterns everywhere. You'd see people try to connect to one dot, if it's allowed within the limitations. You'd see people make some recognisable shapes like a box, a triangle, etc. They try to make sense out of all this chaos all the time. The same as "Blue Fungus". People tried to glue stickers arbitrarily but it's impossible. As soon as you have to glue a sticker on the floor you try to make sense of it. You repeat the thing that you see next to it, or try to bring it opposite... react to something.

SM: The exception can also include the norm, and then it's not completely outside the system. In a logical linguistic point of view, in which we define reality, I can say that everything is an exception.

No Norm

SM: No, there are no normal cases from my point of view. I completely agree with Wittgenstein. It is true if he speaks about the rules of representation, like thoughts, minds and knowledge: all the cases. All possible cases.

Exception = Norm

LM: Another surprise for these posters is, looking at them quickly people would say "random", "chaos", whatever, but after longer time looking back, it becomes very interesting. We showed and talked about it so many times. But it was made totally quick in one day. If we look at it, we know it's not made by machine, but by a group of humans that had to behave like a machine, we can view some connections or relationships of people's thoughts in each poster, like "Probably they tried to connect this to this," "They tried to build a shape here," "They had an aesthetic feeling to make a diagonal" ...That's very human.

SM: When I say everything is exceptional I mean that it's more related to the fluid perception... We human beings live on the planet Earth and we are not the only living creatures. There are thousands of creatures and this is life. We are in relation to these other lives. In this relation we are particular. If you go outside and look at a tree, there are no leaves which are the same as another. Every form of life is particular. Even if I think of the same image again, they never should be the same. Even a book. Every single book is exceptional. If you see it as an object, this book can be the same as that book. But if you see the life inside: even if I read the same book twice, it's a different book that I read.

Ludwig Wittgenstein

4.2211 Even if the world is infinitely complex, so that every fact consists of infinitely many states of affairs and every state of affairs is composed of infinitely many objects, there would still have to be objects and states of affairs.

Tractatus Logico-Philosophicus

Blue Fungus

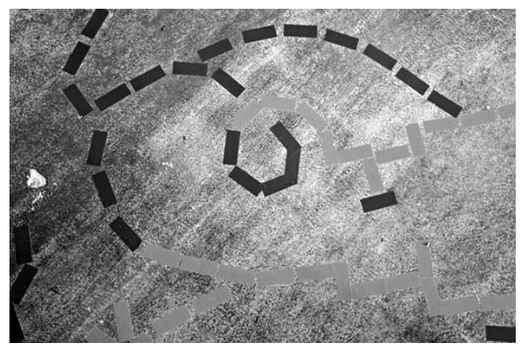
It is a project developed for Deep Screen, Art in Digital Culture, Stedelijk Museum Amsterdam, in 2008. Visitors to the exhibition are given a sheet of four stickers when they enter the museum. They are allowed to affix these stickers somewhere in the exhibition, according to a simple set of rules.

Rules:

1. Stickers may be only attached to the floor.
2. Place your stickers next to stickers that are already in position. The distance between the stickers may not exceed the size of a single sticker.
3. You are not allowed to affix stickers in a new location.
4. Stickers must not be stuck anywhere other than in the Deep Screen exhibition space and the public spaces of the museum. It is not allowed to to attach the stickers in the other exhibition spaces.

'Copying nature' is one thing and understanding nature is another. Copying nature can be simply a form of manual dexterity that does not help us to understand, for it shows us things just as we are accustomed to seeing them. But studying the structures of nature, observing the evolution of forms, can give everyone a better understanding of the world we live in.

Design as Art, Bruno Munari



Natural forms are continually modified during growth by their surroundings. Theoretically all the leaves of a single trees should be identical, but this could only happen if they were able to grow in surroundings completely devoid of outside influences and variations. All oranges should have an identical round shape. But in reality one grows in the shade, another in the sun, another in a narrow space between two branches, and they all turn out to be different. This diversity is a sign of life as it is actually lived. The internal structures adapt themselves and give birth to many diverse forms, all of the same family but different.

Design as Art, Bruno Munari

3 How different is an observed exception, from an intentionally created exception?

Humans make Mistakes

JP: Computers don't make a mistake. The programme inside the computer makes a mistake.

JP: Always human. That is the most terrible thing about being a programmer. It's always your mistake. Or someone else's. Never the computer's. You can never say "This damn computer! He always makes mistakes..." No!

Mistakes & Chaos

PvB: Yeah, it does exist. Even among great musicians, mistakes exist; this is a wrong note or tone, this way of articulation is not OK, the rhythm is not good, this doesn't fit the style, etc. They are looking for a confirmation of style. If you want to play bebop, you have to follow its aesthetic, rules of how to build up your improvisation. If you go out of this concept, you might be an original contributor to the style. At the moment you really deconstruct the material, you might start a new style. He's not doing bebop style any more, but something else. It depends how you look at it. Conceptual musicians do not like the idea that there is a mistake, because in improvisation you should be completely free. But if you pretend to perform in a certain style, your improvisation has to fit, be in line. Otherwise it's alien to the style, and it's in a line of a completely different style. But some people might say he or she has something new to add to that specific style.

2.012 In logic nothing is accidental: if a thing can occur in a state of affairs, the possibility of the state of affairs must be written into the thing itself.

5.473 Logic must look after itself. [...] In a certain sense, we cannot make mistakes in logic.

Tractatus Logico-Philosophicus, Ludwig Wittgenstein

Something Else

It is the 1958 debut album by jazz saxophonist Ornette Coleman. According to All Music, the album "shook up the jazz world", revitalizing the union of blues and jazz and restoring "blues to their 'classic' beginnings in African music". It is unusual in Coleman's output in that it features a conventional bebop quintet instrumentation.

Mistakes = New Rules

PvB: Yes, absolutely. In improvisation I call a mistake the ‘present of surprise.’

LM: For example, the artifacts in jpegs or video images are created by compression. You see a mistake by compression but might think “Wow, I like it. Make a video clip with it!” Maybe the interesting point is not so much about mistakes, but about trying to break preset constraints. I wouldn’t see it as a mistake really.

SM: Exceptions also have an interesting political implication, as a mechanism of a suspension of rules, and an introduction of new rules. We ac-cept it because it’s an exceptional situation. In a normal situation we can have some problems. For example, in the Bush administration they used it a lot. The attack on the Twin Towers was used as a mechanism of an exceptional state, in which new rules were created. And they were accepted by the society because of this. Politically it’s how you turn a democracy into a totalitarianism. It’s not only possible, but it’s applied it as a strategy, I think.

Created Mistakes

JG: Actually I wouldn’t say that. I have my own opinion on how nature is. People tend to say “Nature is good”, but on the other hand it can be very dangerous out there. I wouldn’t survive for two days in the jungle. I tend to think that nature is neither good nor bad. But it’s just nature.

You have to wait till nature gives you what you want, but it might be never because nature doesn’t have any real intention to do it for you. So you have to do it yourself. That’s what people have been doing. I think there is definitely beauty in it, although there is a danger in overdoing it.

Value of Mistakes

JG: The same discussion usually happens in the kitchen among chefs. Some of them always say “I work with natural products”. In certain French cuisine theories, and also Italian ones, if the ingredients are well-prepared and the chef does a good job, the food tastes how natural ingredients should taste. There is some criticism against that, which I like: if I go to a restaurant, I’d like to enjoy what the chef does to the food. I don’t want to taste its natural taste. I want to taste how he makes it taste. A taste of him. So the question is how far you can go with it. How far the chef manipulates food. What the cook always does is almost in the domain of chemistry, typically in French cuisine.

I tend to resist giving too many observations on naturally grown examples because it has value only when the observer has ideas about it. In that sense, an intentionally created exception can be fantastic... that’s art basically.

jpeg compression

Quality: 12 (Maximum)

Quality: 0 (Low)

Twin Towers

In Korea a new paprika was developed that is bright red, and looks like a tomato. It tastes sweeter than existing pimento or paprika. It is typically eaten cold and raw in salads, or can be ground and mixed with yogurt, or can be juiced.

French cuisine

Scallop with fennel and tangerine gastrique

4 Can we apply a rule to something, in order to observe differences evolving?

Apply or not

LM: In graphic design there are rules everywhere. For example, the layout with a fixed grid is already a rule.

JP: But restrictions are different from rules. A restriction is something that stops you from having all the possibilities in the world. It forces you to make a decision.

LM: So a restriction can be a budget. You have 10,000 euro. You have to work within this restriction.

JP: I think also in that case you CHOOSE to follow a rule, you're not FORCED to follow a rule. A restriction forces you to follow.

LM: Exactly. You can choose not to obey rules. Then it makes them strong a lot of times. You say titles are always exactly like this, but then once you don't do it, it has meaning because you didn't do it. If you don't have a rule everything is meaningless.

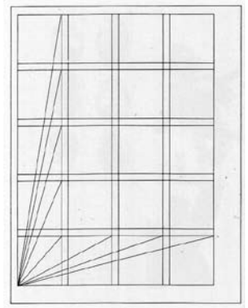
Ablility to Apply?

SM: In the sense of definition, yes. The basic rule. There are different levels of meaning. One is a semantic definition.

Grid

The grid is used by the typographer, graphic designer, photographer and exhibition designer for solving visual problems in two and three dimensions. [...]Information presented with clear and logically set out titles, subtitles, texts, illustrations, and captions will not only be read more quickly and easily but the information will also be better understood and retained in the memory. This is a scientifically proved fact and the designer should bear it constantly in mind.

Grid systems, Josef Müller-Brockmann



Snowflakes are the result of symmetrical crystallization of water molecules as they turn into ice crystals. Water molecules, when pass to crystalline solid state, such as in ice and snow, form weak bonds (called hydrogen bonds) in which two hydrogen atoms tend to attract neighboring water molecules.

61. ... A meaning of a word is a kind of employment of it. For it is what we learn when the word is incorporated into our language.

62. That is why there exists a correspondence between the concepts 'rule' and 'meaning'.

Yeah, in which we define the meaning, the object. In the word we have the definition. And this is something I escape. For example, in Joseph Kosuth's work, he showed definitions of words. The gesture of showing the definition reveals the mental space. I'm interested in meaning as a con-dition, not in meaning as a specific, semantic definition. I'm not even sure that we understand each other through this meaning. Our understanding is more complex than just exchanging definitions.

Apply to Communicate

LM: Absolutely. To understand the world. If there are no borders, no rules, there will be miscommunication. We could not live at all.

Apply to Discover

JG: Sometimes the rule that you find is more general than where the rule derives from. We already agreed that a rule derives from observations and is common to all observations. Then a rule could be out there, if you apply the rule where people haven't discovered it yet. But if you don't have the rule, you don't know what to look for. That's why rules are so important.

Apply it to Language

SM: For me the meaning is a surface. There is a very different relation between meaning and sense. I want to show my example. "The Fall". The fall in a language. This is another way to deal with language, in the relation to space, time, intention, gesture... What is interesting to me is that there's no depth. I mean in words we always have depth, that is given from the meaning. Here you just expose yourself. It's not a particular language in a sense of grammatical, syntactical rules. It's just a basic condition which humans can recognise in common.

Apply it to Music

PvB: I also think about Butch Morris. He is an American jazz musician and composer. His composition is made by conducting, which makes him very famous. He stands in front of the orchestra and conducts a number of movements with his hands. He's a very interesting guy and it's a very artistic idea. But he can only conduct with his hands. What comes out of him is very personal.

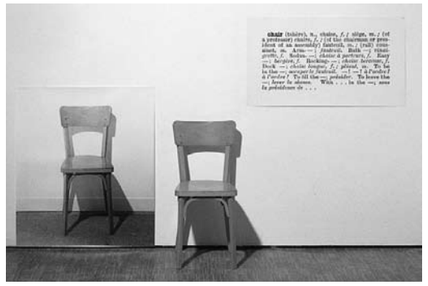
Apply to Forget

JG: At a certain moment you can forget about observations and only think about the rule. Then think about the area where the rule is applied to something it has never been before. It's a way to discover new circumstances, basically. A good example is electricity and magnetism, which is very popular among physicists. A lot of observations were made in the 19th and 20th century. In that period Maxwell integrated electricity and magnetism into one theory, one principle. Then

62. That is why there exists a correspondence between the concepts 'rule' and 'meaning'.

On Certainty, Ludwig Wittgenstein

Joseph Kosuth



One and Three Chairs, 1965

The Fall

The Fall attempts to show the text as an ensemble of the main elements of representation in theatre: time, space, light, body (gesture). The text was drawn for 1 minute duration as a calligraphic performance with light and transformed into 25 video stills per page in a book.

Butch Morris

Cobra is an unpublished but recorded and frequently performed musical composition by John Zorn that was conceived as a system with very detailed rules but with no pre-conceived sequence of events, or game piece, for a group of musical improvisors and a prompter.

The piece proceeds as follows:

1. Players raise hands to get the prompter's attention
2. Prompter selects a player (the prompter is free to ignore players with raised hands)
3. Selected player gives a cue corresponding to a card by pointing to a body part (mouth, nose, eye, ear, head, palm) that indicates the class of cue, and holding up the number of fingers indicating the desired cue
4. Prompter shows the corresponding cue card to ensemble and puts the card in play, usually by giving a downbeat with the card a downbeat with the card
5. Players perform according to the rule represented by the card
6. Repeat from the top until an ending cue

Maxwell's equations

They demonstrated that electricity, magnetism and even light are all manifestations of the same phenomenon: the electromagnetic field. From that moment on, all other classical laws or equations of these disciplines became simplified. Maxwell's equations are a set of four partial differential equations that describe the properties of the electric and magnetic fields and relate them to their sources, charge density

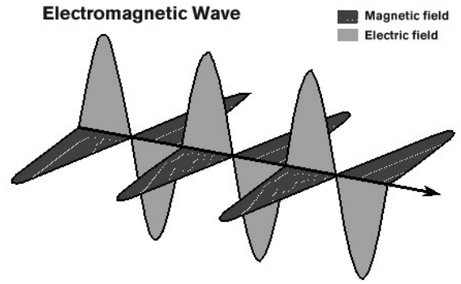
he stepped back into the circumstance where electricity exists: space. Eventually he found that in space electricity has a property of light.

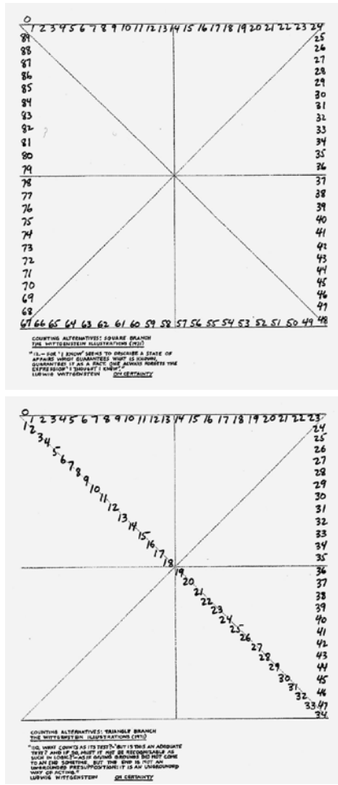
Apply to Prove

JG: If you succeed, then that's usually the greatest test for the rule. People would say it's a good rule, they would like it.

and current density. These equations are used to show that light is an electromagnetic wave.

is given





Counting Alternatives (The Wittgenstein Illustrations)
Twelve line photo engravings; each 20 x 15 in.
Mel Bochner, 1971/91

5 Can we call one thing “original” and another “copy”? and Do they have the same value?

What is Original?

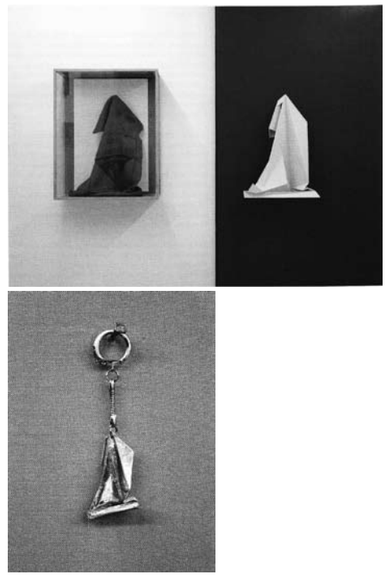
SM: I don’t feel I have three languages, but I feel I have no languages at all. When I decided not to write in my mother tongue, it was quite a conscious decision... I put everything at zero... I mistrust words... What interests me is thoughts. Thoughts are translatable in any languages.

What is Copy?

JG: Let’s take a recipe as a start: it’s a creative process because you are thinking “I think I miss something. I want the taste tp be more intense. What do I want to add?” This is no longer a copy, although it has evolved from something. I think a copy is something which does not contain an idea in it. Maybe it’s wrong to call these both originals. The difference can be modest but still you did something to it.

Different Value

SM: Words have a certain beauty and seduce us.



Sack One (top left)
BASF 100 kg Kalkammonsalpeter Hessian sack cir. 1921
Cabinet, found sack with stabilizing structure
Sack Two (top right)
Multiplex with primer
Silver Sack (bottom)
Solid Silver, key-ring chain

James Beckett, 2008

Every language has a different manner of seducing with words. In Italian, for example, there is the power of details. Italian is a language that can reveal meanings through details, which English does in a different manner. English works with details after you have a clear logical base. In Italian it's not necessary. You can go directly to the logical base which can be created only by details. It's different.

Equal Value

LM: No, equal. Neither. That's the whole point. It's not about one unique image, but about the possibilities.

LM: No, no... It cannot fail... You cannot say this works well or does not work well, because that's apparently how it works. That's how the collective brains work and that's what we'd like to show. It's not good or bad.

LM: Of course. You expect that people mistreat the rules. People try to get around them. It's a play. I just observe things: "OK. That's how it works apparently."

Value of Precision

PvB: A good composer should inspire or stimulate players.

PvB: Of course players have to be able to play what is written. And they should also be able to imagine what the composer means. Eventually they can add something, an extra dimension, a different point of view, because they've investigated the composer.

JG: That's interesting. All the technical aspects and cooking skills will be different between professionals and amateurs. But the best difference is the chef who has an idea with the dish. He would have thought about the composition in terms of flavours, wanted to express something in the dish and also wanted to create something which tastes nice, of course.

Precision to Origins

SM: I don't search for the beauty in each language. What interests me is a matter of exactness. Exactness to thoughts. Exact to the information passed through the words. And in this exactness I find a certain beauty. Not the external beauty of a word. Or that they're together. You don't have to separate them.

Writing is an aesthetical experience. Wittgenstein says that philosophy is about clarity of thoughts. I understand it very well. There is a certain importance in words in the relation to this clarity.

PvB: The composer tries to express his imagination to musicians by signs, often by something on paper: a score. Players interpret it. Even in Mozart, there is a huge direction of representation, how they express

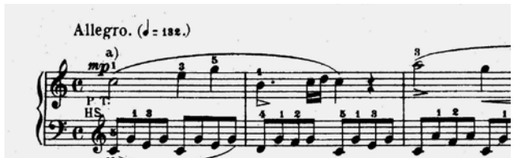
Extract-arrangements, as it appears in the above titles, is developed as a technique. *Extract-arrangements* take such evidence and fragments of history as components and removes them to some extent from context, in order to build and derive new sense.
[...]
In all pieces carrying the work *Sack* in their title, a process in undergone. An antique Hessian sack clearly marked with the company logo BASF is confined to an oak cabinet, a measure to preserve it from air and quite obviously to emphasize its age (*Sack One*). With the capacity to carry 100 kg, it is also marked with its intended content; *Kalkamonsalpeter* (an ingredient in fertilizers, explosives and solid rocket propellants). In an agricultural application it means fertility, as anything else it could spell disaster.

Sack Two is a geometric approximation of *Sack One*, a potential maquette for a Soviet monument of some sort. As a result of this upward looking shape and its abstraction of the functional original, it is perhaps a subconscious proposal for an item of architecture. *Sack Two* becomes a translation, a step forwards an evolved form.

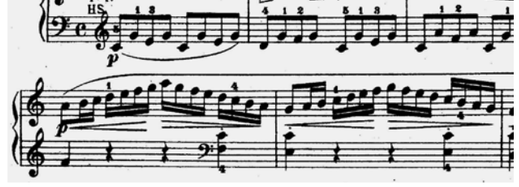
In the same series is a pair of key-rings, one in the form of a carrot bearing the name *Pyramin* (a herbicide developed by BASF), the other an egg timer, from BASF-Luran, a collaboration of the chemical giant with a design firm. Hanging in their own elongated cabinet, they share a similar presence as the original Hessian sack. *Silver Sack Key-ring*, is a bridge between the found key-rings and the geometric *Sack Two*, a cast silver key-ring of the same shape at a different scale; it almost fulfills an obligation to become a logo or memento or sorts.

James Beckett Monograph 1998–2008

Wolfgang Amadeus Mozart



what is not written there. They do that through research. Try to find how Mozart wanted us to play. If he wanted a specific tone, or what kind of musical instruments he wanted because at that period they had different kinds of instruments than now. That is an authentic musical performance.



The Piano Sonata No. 16 in C major, K. 545

Precision to Thoughts

SM: Referring to the text by Benjamin, he clearly distinguishes between good and bad translations. A bad translation is the translations that tries to translate the meaning. Because for him it is an impossible semantic blockage of the word. Every culture, every language has its own lives to keep in relation to the meaning. Me and you, we can understand each other. This is not based on English. Our understanding is based on the fact that we, human beings, are capable of languages and we expose ourselves to English. THIS becomes a meeting. Actually THIS is what he called a good translation.

Walter Benjamin

Is a translation meant for readers who do not understand the original? This would seem to explain adequately the fact that the translation and the original have very different standing in the realm of art. Moreover, it seems to be the only conceivable reason for saying “the same thing” over again.

[...] It “tells” very little to those who understand it . Its essential quality is not communication or the imparting of information. Yet any translation that intends to perform a transmitting function cannot transmit anything but communication — hence, something inessential. This is the hallmark of bad translations.

[...] It is evident that no translation, however good it may be, can have any significance as regards the original. Nonetheless, it does stand in the closest relationship to the original by virtue of the original’s translatability; in fact, this connection is all the closer since it is no longer of importance to the original. We may call this connection a natural one, or, more specifically, a vital one.

The Task of the Translator

6 Does a rule always lead to a single answer? and If there are several possible answers, how do we observe the differences?

Perfection, says an old oriental proverb, is beautiful but stupid: You have to understand it but break it.

Drawing a Tree, Bruno Munari

Aesthetic from Self

PvB: Yeah, color of sound. The overtone. The same tone played by different instruments can have different overtones, because they have different materials and different structure, etc. Then you also have articulation, dynamics... all these different elements together form the aesthetics of composition. You would compare it with visual arts: somebody likes stones, some like paper, some like complex forms or simple ones, all together with these materials, the person creates his or

her aesthetic from an inner point of view.

PvB: In fact, I personally do think that the greatest music is completely improvised. That would be the best. But there are limitations for people to reach complete freedom. We have to think what is free. People have their history, education, their own circumstances. You can hardly say they are free.

Aesthetic of Logic

SM: This is your decision how to take out your... not the subject... how to say... In Western culture there is the idea of the artist as "I". I think in the procedure of aesthetics of logic, you need to take this "I" out. There is a difference between the exercise of your subjectivity and of your "I", because the "I" is biographical. It is always connected to different experiences. You go to all the different kinds of sources. But if you exercise your subjectivity without "I", you'll arrive at different kinds of sources and information. The source of this creation is different. I think one of the important elements in conceptual work is the position of self. The position of the artist in the relation to the work.

SM: We recognise it because it's there. Logic is visible. Mont Analogue is a really interesting work because of the manner in which you organise the aesthetic judgement. It's the process of internal and logical forms becoming visible. So what you did was actually make the living movement of thought visible. Of course, the subject is the artist. I'm wondering where the position of the artist is in this aesthetic of logic. The subject. What does he express? For me it seems an almost Taoistic concept that the subject needs to make the place where things are happening. Working with subtraction, not with addition.

Aesthetic = Taste
Aesthetic ≠ Taste

SM: No, it's visible there to anyone. It's not about the taste.

PvB: Yes. That's your taste.

Aesthetic of Process

SM: It doesn't work so because you did not just create a rule and apply it. You need to DO it. LIVE it. By living it I think you achieve a certain thing. That's a process, not a rule. I see the processes visible inside the work.

Art & Aesthetic

JG: I think in these areas, like art or cooking, you see two aspects. One is the technique, which is a toolbox in principle you have as an artist or a chef. You have to know the properties. That's the first step to know things. But at the moment people start talking about the aesthetic properties of the theories, it means something else. Also in art, there is basically a distinction

We have therefore discarded beauty in the abstract sense, as something stuck on to the technical part of a thing, like a stylish car body or a decoration tastefully chosen from the work of some great artist. Instead we have formal coherence, rather as we see it in nature. A leaf has the form it has because it belongs to a certain tree and fulfils a certain function; its structure is determined by the veins which carry the sap, and the skeleton that supports it might have been worked out by mathematics. Even so, there are many kinds of leaf, and the leaves of any single tree differ slightly among themselves. But if we saw a fig-leaf on a weeping-willow we would have the feeling that all was not well. It would lack coherence. A leaf is beautiful not because it is stylish but because it is natural, created in its exact form by its exact function. A designer tries to make an object as naturally as a tree puts forth a leaf.

Design as Art, Bruno Munari

Mont Analogue

It is the publication project which has been started by Snejanka Mihaylova and Piersandra Di Matteo in 2008. It intends to explore the territory of performing art and philosophy with international artists, curators and writers. The contributions of the first issue were divided into a magazine insert and the website (http://www.montanalogue.org) and designed by Ayumi Higuchi.

Process
- The process is the product.
- The most important aspects of a process are time, relationship and change.
- The process produces formations rather than forms.
- We search for unexpected but correlative, emergent patterns.
- Even though a process has the appearance of objectivity, we realize the fact that it stems from subjective intentions.

Conditional Design – A manifesto for artists and designers, Luna Maurer, Edo Paulus, Jonathan Puckey & Roel Wouters

between art and aesthetics. Aesthetics is what people would generally say or theorise as beauty, which is changing in time...

PvB: Sure. When somebody has a very personal taste in a common style, he is regarded as an original. For instance, you have bebop, which you can describe. Then suddenly you have Thelonious Monk who has a completely different approach to tone, a different attack to rhythm. That's his aesthetics, you would say.

Aesthetic Is Time-based

JG: If you have this aesthetic canon or norm, such as the Golden ratio, it is a classic criteria of art. They are still alive, that's right. Although it's usually also connected to a certain thing. A good example is architecture. The main criteria of a beautiful building used to be stone. What you can do with stone is limited. At a certain moment cast iron was introduced, like the Eiffel Tower. At that period people said "That's a ugly building! We don't like it!", because it deviated from the conservative artistic canon. Now we have many different materials, this whole world of possibilities! We can do much more. In time, you can see the aesthetic shifts. The material of cast iron or the theory of the Golden ratio, which once used to be solid and enigmatic canons of aesthetic, are not necessary any more. If new elements are introduced or entropy in the aesthetic point of view are changed, the capacity or possibility of artists also changes.

New Aesthetic

JG: Now it's very clear with computers. The way how you use a computer as an artist. It used to be a craft but now a computer will compute for you. It becomes cast iron, a tool which is flexible for you. But it's only a start.

PvB: Yes, absolutely. The world is moving all the time. I think in the New Orleans jazz period, it was not understandable that one day improvisation would be about little noises.

JG: I think not. We don't know how a computer evolves... or human evolves with it... It's a responsibility of us.

JG: Yeah, but we can try to stimulate them. Indeed I think it will change in a generation. My children will have different opinions about aesthetics. That's inevitable.

How do you see these changes in aesthetics?

Thelonius Monk

Often regarded as a founder of bebop, Monk's playing style later evolved away from that form. His compositions and improvisations are full of dissonant harmonies and angular melodic twists, and are impossible to separate from Monk's unorthodox approach to the piano, which combined a highly percussive attack with abrupt, dramatic use of silences and hesitations; a style nicknamed "Melodious Thunk" by his wife Nellie.

At first, many astronomers regarded Johannes Kepler's theory of planetary motions as ugly for portraying the planetary orbits as ellipses rather than combination of circles. Issac Newton's theory of gravitation struck many of his contemporaries as aesthetically unacceptable for postulating action at a distance. [...] But as they built up their impressive empirical track record, all these theories came gradually to be seen as aesthetically pleasing.

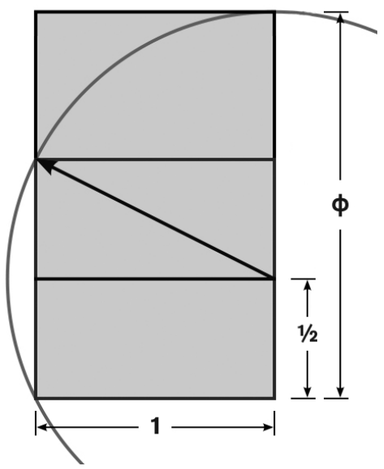
Is Beauty a Sign of Truth in Scientific Theories? (American Scientist, Vol.86), James W. McAllister

Eiffel Tower

Golden ratio

Mathematics and the arts, two quantities are in golden ratio if the ratio of the sum of the quantities to the larger one equals the ratio of the larger one to the smaller. The golden ratio is an irrational mathematical constant, approximately 1.6180339887.

Construction of a golden rectangle:



1. Construct a unit square.
2. Draw a line from the midpoint of one side to an opposite corner.
3. Use that line as the radius to draw an arc that defines the long dimension of the rectangle.

7 Could there be a single rule explaining the whole world?
or
Will we never find out?

Universal Rules

SM: I'm afraid of all these universal systems. What they try to create is a total picture without considering unknown pictures within it. To understand the generative grammar of Chomsky, I need to know so many things. Understand? This is for me already very far from "universal". The universality must be something really basic.

JG: In principle a lot of things happening around us can be explained by Newton's equation of motion. The motion of an apple falling, of waves in the sea, of rocks falling, of stars moving... you know, you can write everything in one line. Yes. Physicians like a rule that you can apply to a lot of circumstances. One single rule they look for is a belief. We all live in the universe and there are sets of rules which can be applied to small things as well as to large things, which are the cases of Einstein and Newton's theories, about the universe. That is the ideal especially for physicists. They like simplification of rules.

SM: But... in this sense our universal language is death. We were born and will die. That is the only universal language we have: the fact we were born and we will die. It's something all humans know independently and means something for us. It means nothing for computers. Now people use this principle of universal language to develop the artificial intelligence. But computer will never be afraid of death. This condition is something important for me.

Silence & Unknown

JG: But it's a mistake to think that if you find a rule you know everything, because you can think of so many things out there. That's why I say that it is a belief, almost like a religion to think that there is only one rule. First of all it's not found yet and secondly you can go on as long as you want, smaller and smaller for instance, then nobody could say this is a single rule. Although it's appealing, it is not certain.

SM: What we cannot speak about – exactly in this point, where the language and the silence coincide, touch each other, at the same point. Silence defines what we can speak about. Silence is the exception of language. The world is given in silence.

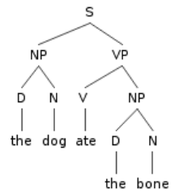
Stop Playing / Play Silence

PvB: Once we had a performance which was almost silence. The group was really blocked.

PvB: Yes we were. It was a kind of... the moment when a computer freezes. It was a group of five musicians, performing at Bimhuis. For 5 ...or 10 minutes nobody did anything on the stage. We were all thinking "What

Generative Grammer

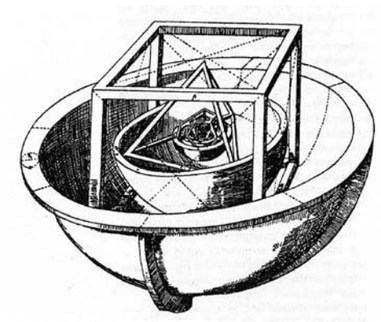
In theoretical linguistics, generative grammar refers to a particular approach to the study of syntax. The derivation of a sentence by a grammar can be depicted as a derivation tree. Essentially, the tree model works something like this example, in which S is a sentence, D is a determiner, N a noun, V a verb, NP a noun phrase and VP a verb phrase:



Newton's laws of motion

Newton's laws of motion are three physical laws that form the basis for classical mechanics. They are:

1. A body at rest stays at rest, and a body in motion stays in motion, unless it is acted on by an external force.
2. Force equals mass times acceleration (F = ma) (or alternately, force equals the rate of change of momentum with time).
3. To every action there is an equal and opposite reaction.



Kepler, in his *Mysterium cosmographicum*, published in 1595, long before he discovered the three laws bearing his name today, made an attempt to reduce the distances in the planetary system to regular bodies which are alternatingly inscribed and circumscribed to spheres. Here is his construction, by which he believed he had penetrated deeply into the secrets of the Creator. The six spheres correspond to the six planets, Saturn, Jupiter, Mars, Earth, Venus, Mercurius, separated in this order by cube, tetrahedron, dodecahedron, octahedron, icosahedron. [...] We still share his belief in a mathematical harmony of the universe. It has withstood the test of ever widening experience. But we no longer seek this harmony in static forms like the regular solids, but in dynamic laws.

Symmetry, Hermann Weyl

7 What we cannot speak about we must pass over in silence.

Tractatus Logico-Philosophicus, Ludwig Wittgenstein

"Explanations come to an end somewhere". Wittgenstein was talking about science and also about how a child learns a language. Explanations come to an end somewhere in the sense that, for example, Newton, when he formulated the theory of gravity, was a genius, and everything he said was true. However, it turned out with Einstein that what Newton was describing was only part of reality and he wasn't aware of certain things because it was not possible to be aware of them at that point because of the available measuring instruments, etc. Einstein opened up another reality that we weren't aware of. At one point we thought atoms were the smallest bits of physical matter, then we discovered protons and neutrons, then we discovered quarks and now we talk about string theory and everything may be vibrating almost like music. So every 20 or 30 years in physics, which is the most

shall we do now?" There was a nice discussion in the audience. There were two composers who listened to it. One said "They are saying NO each other". The other one said "No, they're saying YES". It's really funny. You can see the moment the group didn't move at all as YES and NO.

Silence = Gift

SM: Silence or what we cannot speak about is given in language. What we can speak about as a condition. From this point, we can start another Tractatus, the "cryptic" Tractatus, where language is a gift of silence.

PvB: When you improvise there's a very fast circle of creations and judgements. In this procedure you hardly have time. Most of the time you miss what you're actually doing. A lot of jazz musicians are surprised when they see their own solo transcribed. When they performed they never expected something like that. There are very unconscious movements going on in improvisation.

Unexpressed & Silence

JG: What scientists are doing is creative. They are clearly trying to express everything in numbers. Now it's all about the brain or thoughts.

When I was young I used to pursue a certain science but I knew or at least I believed there's definitely something that science cannot explain. You cannot explain everything in numbers. One of the most important things to me, though some people deny it, is consciousness, for instance. I really cannot imagine if something is there or not. You'd never know how to make a robot that is conscious. You might make it in a way that he responds to all different situations the way a human might ... But I cannot imagine being subjected to this type of law. Yeah, consciousness exists. Some scientists say there are theories but they are all vague. They call them "emergent properties", which are really simple rules bringing about a different variety of phenomena. But you see: you almost start entering religion. Maybe consciousness is such a thing that you have to be silent.

If you can phrase it, you can grab it. You can capture it in language, perhaps in mathematics, I don't know. As soon as you mention it, giving an example, science can grab it.

Intuition in Silence

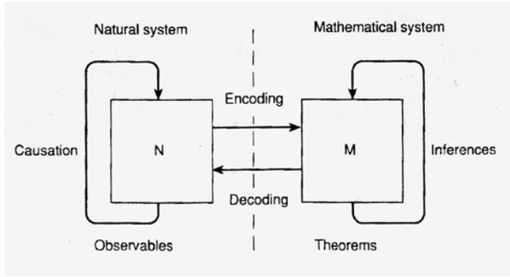
LM: You don't SEE the differences.

JP: I totally disagree that a computer could make this poster. I don't compare this with Shakespeare, but you know, if you put thousands of monkeys in front of typewriters and let them work, they could produce Shakespeare one day. That is what I see as a random.

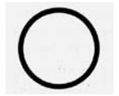
may be vibrating almost like music. So every 20 or 30 years in physics, which is the most basic of the sciences, you have some basic new insight that opens up a whole new door to another reality. And this is not because there was something wrong before, but just that we couldn't see this new reality at an earlier point. So we know that tomorrow we will see something we couldn't see today. In that sense, clearly, "Explanations come to an end somewhere." You know from your personal life as well, that many things you want to understand just happen and they surprise you and they are not what you expected and are not under your control. As I get older I realize I know less than I thought.

Steve Reich interviewed by Hermann Kretzschmar, 2005

A representation of the world of mathematics and Nature, which illustrates the process of mathematical modelling, devised by Robert Rosen.



Now if I were to try to translate this distinction between RATIONALIST and PRAGMATIST into another system as a simple graphic diagram, I might reasonably use this circle



to stand for the RATIONALIST. The RATIONALIST insists that the world is one sealed, perfect and knowable system. Truths are eternal and absolute — they need only to be discovered through reasoned and logical investigation. Meanwhile, for the PRAGMATIST the world looks more like this

The PRAGMATIST insists that the world is always becoming and that truth CAN ONLY BE PRODUCED THROUGH PRACTICE. For the PRAGMATIST, time is an arrow that marches forward and truth comes along for the ride.

Naïve Set Theory (DOT DOT DOT 17), David Reinfurt

4.1212 What *can* be shown, *cannot* be said.

Tractatus Logico-Philosophicus, Ludwig Wittgenstein

LM: There is a chance that, if you obtain the same elements and apply the rule millions and millions times, the exact configuration would reappear. You can't see it, but the difference is how it is made. It's not about the visual configuration. You look for a story behind it. If it's made by computer, it'd never happen so quickly and I'd be not so interested in it.

JG: That's right. I'm interested in that. But what I do is to tell you how to make good food, if you tell me what is good food for you. If you want a grilled fish or steak, what about the temperature? How to do these things work. This is a very important thing, but it's not the whole story. If you want to be a good chef, of course you have to know the technique but also you have to know the other things about being an artist. The emotional part which you really cannot express in numbers, it's basically the intuition of the chef. There is also the technical aspect. I'm interested in the non-technical aspect, but... yeah, by the definition of science I'm silent, really. You see what I mean?

But I'm not afraid to spoil the romance of cooking or the artistic appeal of cooking. It's people. It's not technology. I think people always keep doing it. They would be bored otherwise.

[I do philosophy now like an old woman who is always mislaying something and having to look for it again: now her spectacles, now her keys.]

On Certainty, Ludwig Wittgenstein

Proofreaders

Will Holder
Stephanie Pan

Special thanks to

All the interviewees
Will Holder
Floor Koomen
Marieke Stolk

LM: I think you don't need answers. The questions are your answers already.

Dear Readers,

Thank you very much for your interest.

This little booklet shows what I have researched and experimented during the final year of my study at Rietveld academy. I must say one year was too short for the potentials this theme has. Therefore I will continue this project and all your comments, suggestions or critiques are more than welcome. If you know somebody who is involved in this subject or yourself is indeed, please let me know.

Hope you'd enjoy it.
I promise I'll update you for further progress.

Kind regards,

Ayumi Higuchi (ayhg@me.com)
September 2009, Amsterdam