

ANTENARRATIVES ORGANIZATIONAL GRAMMAR AND GÖDEL

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Story 1

The concept of organizational grammar (orgrammar) is illustrated by Kafka's story¹ of the Law which I will equate with orgrammar. Kafka's story is an ante narrative. It is a story that cannot stop like the non stopping proof of Gödel's incompleteness theorems². It goes as follows. A man stands in front of a door through which he must pass and behind every door is an endless series of doors through which he must also pass. Each door is guarded by a doorkeeper who demands of the man, that to pass through the doorway, he must ask the right question. Successive doorkeepers are stronger and stronger. So the man cannot barge his way through. The succession of doors and doorkeepers is endless; it does not stop. Let the doors be the set of orgrammars. Let the doorkeepers and the questions remain open to interpretation. The Bardo Thodal story³, later in the paper, tells a similar story.

1. Introduction

On the twentieth anniversary of Sc'moi, the Standing Conference on Management and Organizational Inquiry, it is appropriate to begin by inquiring into the scientific contribution of Sc'moi to management and organizational inquiry. Storytelling is probably the central contribution both of Sc'moi and David Boje⁴: Boje's concept of antenarrative is especially important. The paper relates story as part of antenarrative and organizational grammar (orgrammar for short) to Gödel's incompleteness theorems, reflecting one of many scientific contributions of the conference and its founders; multidisciplinary.

Summary

A rather terse summary of the paper is as follows and the remainder of the paper attempts briefly to clarify it.

Generally orgrammars can be described as organizing principles in that they introduce order into a system and enable us to make sense of it, or impose meaning on it. The most immediate orgrammars relate to the world of experience: a world that includes business and political organizations and institutions, social institutions including communities and families and polyphonic voices at personal level that make up the organization and institutions of the mind. They correspond to different *spheres or planes of Being*. A description of the world of experience is Heidegger's concept of Dasein⁵.

Planes or spheres of Being extend beyond Dasein, although they are connected to Dasein: every *sphere of Being* is connected to every other⁶. There is a hierarchy of orgrammars corresponding to different *planes of Being*, with many, often, overlapping orgrammars in each plane. Rather than thinking of hierarchies of orgrammar as suggesting precedence of one *plane of Being* over another, it is more accurate to think of orgrammars as written upon one

another, in the manner of a palimpsest¹: a palimpsest in this context could be thought of as containing the entire set of orgrammars.

Deconstruction is a process of revealing the existence of the *Other* that exists in alternative orgrammars. *Other* used in this way, signifies what is excluded by a particular orgrammar. Every orgrammar is incomplete: a mapping⁷ exists between orgrammars and Gödel's axiomatic systems⁸.

The mapping is this. Every orgrammar relies on another orgrammar for completion and the process of working towards completion of a grammar is endless: like the non stopping proof of Gödel's theorem, it cannot stop: every orgrammar has an *Other*, evoked by alternative orgrammars. The *Other*, here, is seen as contains what is excluded by a particular orgrammar, and is exposed by an alternative orgrammar, which in turn proceeds, Gödel like to exclude its own *Other* and so on. In so far as truth is connected to meaning or sense making, every truth is relative to a particular orgrammar⁹. A state that is pre-orgrammar is impossible, but it exists. The state of pre-orgrammar is the source from which creation emerges; the last part of the paper examines this proposition. Rather than constituting a paradox, co-existence of both existence and non-existence of orgrammar establishes mystery and recognition of mystery as a scientific principle. Pure stories¹⁰ provide a theatre for mystery: the Bardo Thodal is a story that describes a pre-orgrammar state. Pure stories should be seen as a kind of poetry.

Boje antenarrative and Sc'moi

A question asked here is; where on the spectrum of orgrammars, distinguished by their relative openness are antenarratives situated? Boje's antenarratives are pure stories; they are ante in being before the plot and coherence that narrative imposes on story and ante as uncertainty, that is, being unrestricted by even by probabilities. Ante in the latter sense resembles Frank Knight's¹¹ definition of uncertainty describing situations so vague and open to so much potential that probabilities cannot be defined; by antenarratives in gambling sense, (I guess) Boje means a commitment (as it were) to a bet, before the odds or probabilities can be defined¹². Thus the pure stories that make up antenarratives are relatively open texts¹³. Antenarratives are located somewhere along an imaginary spectrum between orgrammar and pre-orgrammar. They are scientific in many ways including; being evolutionary, acknowledging mystery, raising the perception that alternative grammars exist, located near the root of creativity and discovery.

Boje's work, including antenarratives reflects the contribution of Sc'moi, which is a multi disciplinary enterprise recognizing that, the practice of, and inquiry into, organization and management, should be freed from the extraordinarily tight imprisonment of the orgrammar of most contemporary business schools and consultancies.

ⁱ A palimpsest happens when texts are written one upon the other, with previous texts partly erased but still visible.

2. Orgrammar

Whilst grammar for Wittgenstein¹⁴ is defined as rules for the use of a word, orgrammar is more broadly defined: by its (i) *properties*, (ii) *dimensions* (iii) *spaces* it occupies and (iv) the *plane of Being* to which it relates.

Properties

Considering the *properties* of orgrammar, as with grammar generally, orgrammar has properties of morphology, syntax and rhetoric. Roughly speaking; the morphology¹⁵ of organizational grammar describes the qualities of organizations that we choose to focus on; syntax determines permissible linkages between qualities according to the prevailing rules of the orgrammar; rhetoric determines how we speak about them. Morphology, syntax and rhetoric together correspond to discourse.

*Dimensions in Dasein*¹⁶

For the moment we focus on the *plane of Being* that people insist upon calling *the real world*; the *real world* being loosely speaking the world we are part of in everyday experience, that Heidegger more called *Dasein*. Orgrammar conditions the way *the real world* or *plane of Being* (Dasein) behaves and also conditions the way it is perceived and the criteria on which it is evaluated. The *dimensions* of orgrammar are the set of rules, (a) formal/informal, (b) social/personal (c) internal/external operating on organizations and determining their (system) state at a moment in time and their transition from one (system) state to another over time.

The categories (a), (b) and (c), illustrated in figure 1, contain many variables: so the space occupied by orgrammar, even when we limit discussion to Dasein, has a very high, perhaps infinite dimension.

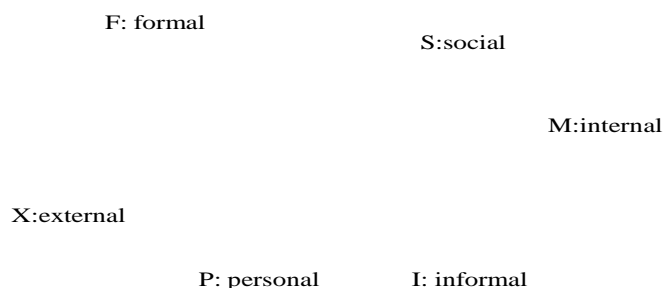


Figure 1

Story 2

An example of the orgrammar buried deep in the organization and institutions of the mind is the statement attributed to one of the prophets that when people die they receive the truth in the language of a religion that is not their own, and think it is false.

3. Spheres of Being

Although it grossly underestimates the dimensions of orgrammar space, we can speak of orgrammars as having lateral or horizontal dimensions, to indicate that there are many alternative grammars pertaining to each *sphere of Being*. The process of deconstruction might be described as that of unveiling or discovering alternative grammars at the level approximately of Dasein. Deconstruction is concerned with the *Other* that is excluded by a particular grammar or perspective of the world. The postmodern is distinguished by recognition that many different orgrammars exist or might exist.

There are many spaces, relating to different planes or *spheres of Being*, each having a distinctive orgrammar. Thus *spheres of Being* and related orgrammars have a vertical dimension, that are described metaphorically in various ways; the material world, the worlds of the soul, the spirit and so on is one description for example; another is the conscious, unconscious, collective unconscious categorization; another is described in the Bardo Thodal (below).

In figure 2 the horizontal and vertical dimensions of orgrammar are collapsed into two dimensions: from the perhaps infinite alternative grammars g_i , 5 orgrammars are illustrated. The set of all orgrammars is denoted G. Individual orgrammars have elements in common; for example g_5 has overlapping characteristics with g_2 . Perhaps all orgrammars have some characteristics in common as illustrated by the intersection ($\bigcap_i g_i$) of the 5 orgrammars. The 5 grammars illustrated do have distinctive features, (indicated by g_1, g_2, \dots, g_5). The relationship between grammars is one of (family) resemblance rather than distinctiveness (disjointness).

Story 3¹⁷

Illustrating the existence of alternative grammars and the essentials of figure 2, is the well known Nasruddin story, and the less well know comment on it by a Nobel prize economist. The story proceeds as follows. A friend sees Nasruddin searching under a streetlight. "What are you looking for," says the friend?"My keys," replies Nasruddin. After hours of fruitless search, the friend asks; "Are you sure you dropped them here, Nasruddin?" "No," Nasruddin replies, "I dropped them over there," pointing into the darkness, "but there is more light here". The Nasruddin story was used by the Nobel prize winner to illustrate (someone else's) stupidity.

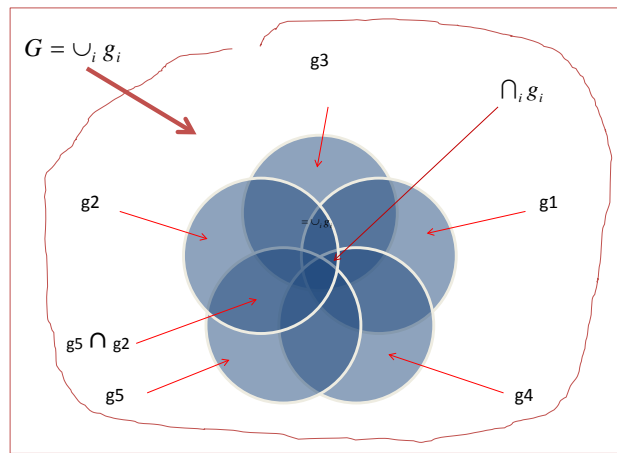


Figure 2

4. Gödel¹⁸

In relation to Gödel's theorems, no orgrammar is complete because there is always a statement in a particular orgrammar that we know to be true and it would be desirable to prove, yet it cannot be proved within that orgrammar. Alternatively we might describe every orgrammar as undecidable in that there are statements within that orgrammar that are neither provable nor disprovable. In this way, the characteristics of space and dimensionality of orgrammar becomes important. In order to fill the gap left by incompleteness or undecidability with respect to one orgrammar we have to resort to another orgrammar, which can be drawn either from the vertical or lateral spaces of orgrammar.

One way of illustrating Gödel's theorem in relation to orgrammars is the proposition that '*statement g cannot be proved within orgrammar G* ': if the proposition is true and statement g cannot be proved within the axioms of grammar G , then orgrammar G contains a falsity and if the proposition is false and statement g can be proved within G then we have a contradiction. The argument seems like a kind of trick unless we remember every conceptual system (think conceptual here as part of the social/personal dimensions of grammar) must resort to another conceptual system for its completion: every orgrammar requires a meta orgrammar for its completion and even when we add the meta grammar G_m , we are still left with the original proposition, rephrased, but of identical form that, '*statement g_m cannot be proved within orgrammar G_m* '. If we construct an orgrammar G_{mm} , that is, meta with respect to G_m , the same problem arises and so on indefinitely.

For example naive verificationism¹⁹ (the dominant paradigm of management research), says a sentence or proposition can only be meaningful if and only if it is either analytically or empirically verifiable: the one proposition in a system governed by verificationism, is that is certainly neither analytically or empirically verifiable, is the statement that '*a sentence or proposition can only be meaningful if and only if it is either analytically or empirically verifiable*'. It is tempting to think of the critique of relativism (which I equate approximately to social constructivism or postmodernism) as having the same status; *if everything is*

relative, then the statement that everything is relative is relative as well. Many, including postmodernists themselves, misinterpret relativity in this way. To say that a proposition is only true, in relation to a particular orgrammar is not to devalue the proposition. Understanding the physics of the fundamental forces of nature, for example, enables us to build machines of many kinds enabling us to use them to perform work of various kinds, but at the same time there may be other valid ways of understanding the universe; through metaphors like Lovelocks Gaia, or as Fechner's (1908) angel (see below) or by admitting the necessity of different types of physics.

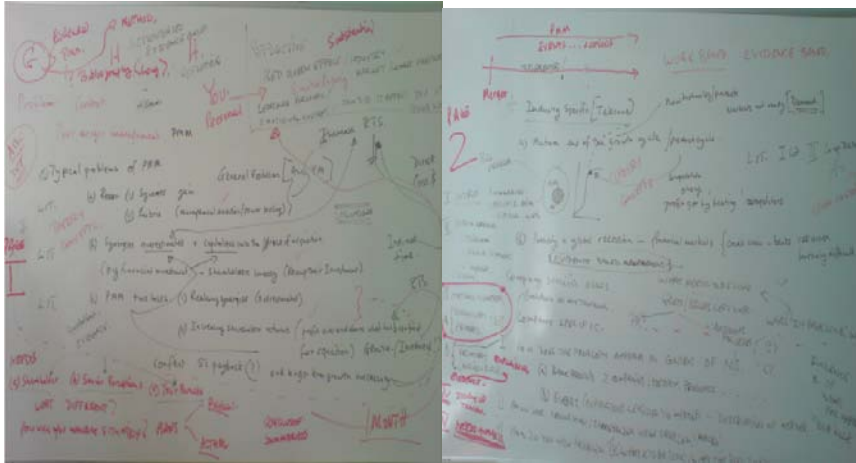
Story 4²⁰

An example, in Dasein, of the generality of theorems like Gödel's, is the story of Enron and the incompleteness of any financial incentive system. Top executives of Enron were rewarded with share options, applauded as the perfect recipe for focussing management attention on increasing shareholder value. Leaving aside deceit, since owners of options can win but not lose, (the minimum value of an option is zero whatever happens to the underlying share price), their risk profile differs from that of shareholders who can both win and lose (shares can move negatively as well as positively). Hence managers pushed Enron into a riskier position than shareholders would have liked: they bankrupted it. The search for competitive advantage is applauded as the dynamic of capitalism: but has exactly the same effect placing economies perpetually at risk from greed: periodically pushing the economy into recession. The costs of the latest financial crisis are estimated at between \$20 trillion and \$60 trillion.

5. Antenarratives

Boje outlines the characteristics of antenarratives: they elude precise definition, but whereas narratives have structure, plot, themes, actors with roles and spheres of action and causality, antenarratives are relatively unstructured. In relation to orgrammar, what space do antenarratives occupy? This is one of the questions addressed in the next few sections. First it may be useful to illustrate the use of antenarratives as a creative activity, in story 5, 6 and 7, illustrating Boje's properties of antenarratives as "fragmented, non-linear, incoherent, collective, unplotted and pre-narrative speculation, a bet." And its transformation into a relatively more closed orgrammar (stories 5 and 6 compared and story 7). It should be noted that story 6, as compared to Harvard type case studies is relatively open²¹. Story 5, for example, is the antenarrative to story 6 below.

Story 5 antenarrative



Story 6: narrative; Cadbury and Kraft merger

A business firm is a collection of different projects; projects in production, training, cost reduction, marketing, operations, projects in finance, etc. Acquisition is a popular project for many firms. Kraft acquisition of Cadbury is typical. Success of the merger depends on; realising anticipated synergies; making them happen; not over estimating them; not paying more than can be realised; the structure of the deal.

Kraft agreed to pay £11.5bn or 840p a share for Cadbury, which pleased most Cadbury shareholders; four months before the takeover Cadbury shares traded at 568p. Normally most gains go the shareholders of the company taken over. Normally managers of the takeover company overestimate payoffs due to the principal agent problem; manager' bonuses and celebrity from big takeovers: anticipated synergies are nearly always outweighed by high integration costs and conflicts of business and operational cultures. The deal was a leveraged buyout secured on Cadbury assets and funded by £7bn debt. The new group's debt to EBITDA ratio is 4.

One Cadbury UK plant was already scheduled to be closed. Commentators predicted that jobs would be lost if Kraft was to gain from the merger. But Kraft vowed to protect other Cadbury jobs in the UK, a vow forgotten: Kraft decided to move Cadbury headquarters to Switzerland to avoid UK taxes. Roger Carr, the CEO of Cadbury at the time, was awarded a Knighthood in 2011 for services to British industry.

Story 8

*One fine spring morning seeing the light casting what looked like a halo over the earth, Gutav Fechner felt that he had concrete evidence that “the earth is an Angel, a gorgeously real angel, so like a flower”. But, he thought, nowadays such experiences are dismissed as imaginary. It is taken for granted that getting to know the earth is just a matter of researching mineral collections.*²²

The space of ante narratives

Ante, Boje interprets in two ways; as prior to narratives and as an open bet which becomes specified when narrative is imposed. Antenarratives are located in a space that is somewhere on a spectrum between orgrammar and absence of orgrammar. Stories as antenarratives relate to experience. They are high in information content, because the messages they contain are relatively unconstrained by orgrammar and hence improbable. They are polyphonic, containing many voices, so increasing the information content²³. They are in a state of flux, in a stage before the process of sense making. Antenarratives are composed of stories which are prior to narratives; ante as prior to narrative is therefore less structured than narratives.

Stories that are part of antenarratives retain the potential that is ruled out by the passage of time and the transition from one (system) state to another. The space occupied by antenarratives is illustrated in story 9.

Story 9

Conceive of eternal time. This means thinking of time, not as an endless succession of moments, like firework patterns successively exploding into the night sky and (almost) instantaneously fading into darkness. Think of time not like that; not as passing along a continuum, from past to present to future. Eternal time would be a set of concurrent moments happening in a single instant; instant and eternal, in that there is only that one moment, nothing exists after or before; past and future collapse into an eternal now. Eternal time would have another imaginable characteristic. All potential, conceivable and inconceivable, would be contained in that eternal instant. Because it contained all potential, eternal time would contain all orgrammars, conceivable and inconceivable.

Antenarratives as heavy tailed distributions

As well as indicating something that precedes something else, ante is connected by Boje to a bet that is made before the cards are dealt or before the odds (in a horse race for example) can be staked out precisely. Boje’s view of antenarratives as bets is close to the view that probability should be not be defined on relative frequencies or on logical possibilities (the odds of a head coming up when tossing a fair coin, or a jack being picked from a deck of cards). Instead probability should be defined on the unknowable and possibly infinite space of the potential of a situation. This is similar to the notion of risk implied by fat tailed distributions. Fat tailed distributions may have infinite variance, in contrast to normal or Gaussian distributions which have limited variance. In fat tailed heavy tailed distributions, extremes are usual.

Story 10²⁴

A good description of the space of antenarratives in Dasein in relation to fat tailed distributions, that links nicely with Boje's idea of antenarratives as a bet occurs in one of Damon Runyon's short stories, when the father of the gambler Sky Masterson, offers his son the following advice:

"'Son,' the old guy says, 'no matter how far you travel, or how smart you get, always remember this: Some day, somewhere,' he says, 'a guy is going to come to you and show you a nice brand new deck of cards on which the seal is never broken, and this guy is going to offer to bet you that the jack of spades will jump out of this deck and squirt cider in your ear. But, son, 'the old guy says, 'do not bet him,[because]ⁱⁱ ... you are going to get an ear full of cider.'"

6. Creativity

Stories that make up antenarratives, occupy a space of orgrammar (and Being) that is extensive, more extensive than narratives because they are not limited by narrative method; the orgrammar of narrative is a subset of the orgrammar of antenarratives. The question is: where on the continuum of orgrammars, are antenarratives situated? Figure 3 illustrates this question.

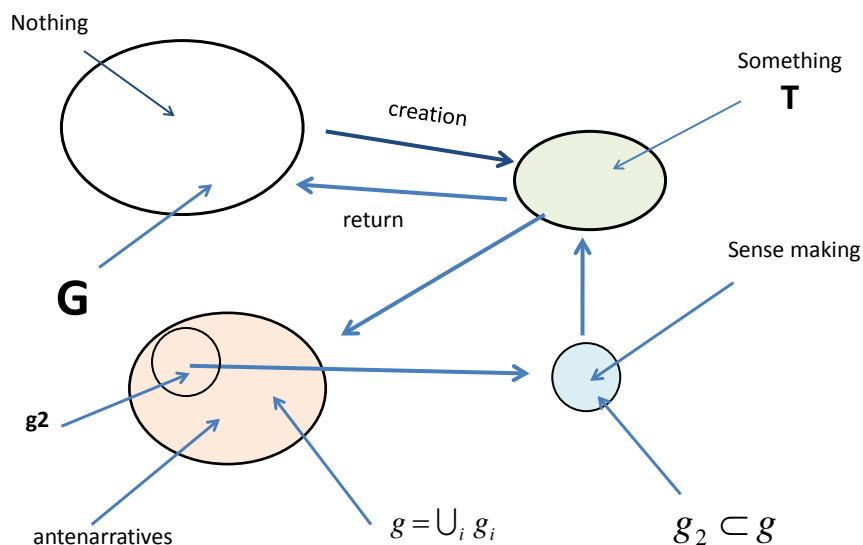


Figure 3

We can view creation as (a) creation as making something out of nothing or (b) creation as discovery. Let us describe what is created, or made, as the text, **T**. One way (a), to proceed is to make sense of the text; using orgrammar. Another way (b), is to return from the text to

ⁱⁱ My parentheses.

where the text emerged; abandoning orgrammar. The first way (a) is life; the second way (b) is death, return to the source.

Creating a text T from orgrammar: narrative and antenarrative

Once something is created, the problem of sense making arises; the search for meaning. Resolving the problem requires imposing some degree of order or organization: it requires orgrammar. Making sense, or imposing meaning, leaves the text less open (than pure story). In the rightwards direction (from the upper left) in figure 3 we have a creative flow; creating something, the text, T , out of nothing. Text requires orgrammar of some kind or other. There are many alternative orgrammars that can do this. But the orgrammar of antenarratives leaves the text relatively open as compared to the orgrammar of narratives. Thus antenarrative consists of a relatively open set of orgrammars g (the bottom left) in figure 3. A subset g_2 , of orgrammars g ($g_2 \subset g$), becomes the narrative of the text T .

The source of orgrammar

The set of all orgrammars illustrates Russell's paradox²⁵: the set of all orgrammars is part of the class of sets that are not members of themselvesⁱⁱⁱ. From the standpoint of Gödel, no orgrammar is complete: all orgrammars contain an *Other*. The set G containing all orgrammars must contain no *Other* (otherwise it would not contain all grammars). Hence the set of all orgrammars is not contained in itself. The class or set of all orgrammars (on every level of Being) contains no *Other*; if it does contain an *Other* it does not contain all orgrammars. But if the set of all orgrammars contains no *Other* it is not an orgrammar. Consider the set of all things that do not contain themselves. The set of all orgrammars is one of those sets. If it is a member of these sets then it contains an *Other*. So it is a member if and only if it is not a member. So where is it contained? Where does the set of all orgrammars live? It exists within emptiness. It is part of non existence, so it is empty of existence.

This is illustrated by the positioning of G in figure 3. The set of all orgrammars does not exist. It belongs to the empty set, labelled nothing in the figure. We now have a view of creation as making something, which we called a text, T , out of nothing. It may seem like a logical puzzle or a paradox but this is not important. What is important is that logic breaks down and we enter the mysterious.

Creation as return

There is another way looking at this: creation as discovery; returning to the source of things. Suppose in the search we move beyond one orgrammar to another, in the steps that the man in Kafka's story could take, but appears not to take. We go successively beyond orgrammars taking in orgrammar after orgrammar, moving towards the set of all orgrammars; beginning to include all *planes of Being*, soul, spirit, including orgrammars on every *plane of Being*, in the limit we approach the set of all orgrammars which contains no *Other* and we are left with nothing; emptiness, death.

ⁱⁱⁱ An example of Russell's paradox is the town where all men shave; some shave themselves others are shaved by the barber. Who shaves the barber? The barber can only shave himself, in such a town if he does not shave himself.

Consider figure 3 from the perspective of discovery or return to the source. The wider set of orgrammars containing the antenarrative and the more restrictive alternative orgrammars containing the narratives exist. The problem is to return to the source from which creation emerged, by successively uncovering meaning by abandoning orgrammars because there is always an excluded *Other*, abandoning all sense making and all organizing procedures.

What would remain as a result of abandoning orgrammars in this way? From one perspective, it would be the set of all orgrammars which is empty, nothing, and from another perspective nothing which contains all orgrammars. Creation is birth, creating something out of nothing; discovery is return to the source, which is emptiness, death.

The *Bardo Thödol* describes creation as making something from nothing and creation as discovery or return to death, symbolically. It is a story of the intermediate state between death and rebirth, nothing and something.

Story 11

The text of the Bardo Thodal is in three parts. The first part is the Chikhai Bardo describes the psychic happenings at the moment of death. Immediately after that moment, is the second part, the Chönyid Bardo, a dream state, of illusions. The third part, the Sidpa Thödol describes the onset of the birth instinct. In the Sidpa state the dead man is unable to benefit from the Chikhai and Chönyid Bardo states. The dead become caught up by the vision of mating couples. Supreme insight and illumination occurs during the actual process of dying. Soon afterwards illusions begin that lead to reincarnation. Illumination becomes fainter and fainter, insight into truth becomes less and less bright and visions become increasingly terrifying, as physical rebirth gets nearer.

Recalling story 9, birth and death and rebirth occur in every instantaneous, eternal moment.

7. Concluding remarks

The concluding remarks are confined to the role of orgrammar in Dasein. Other *planes of Being* may be spoken of elsewhere. Returning the notion a palimpsest, one plane of being may reflect every other plane. In which case every plane is reflected somehow in Dasein²⁶. Orgrammar determines the state of the *plane of Being* of Dasein at any moment. Formally we might say that orgrammar is a state vector in a space of possibly infinite dimension. Grammar in other words spans the space of Dasein. If we consider the number of elements contained in the space occupied by organizations, for example, elements existing within an organization (i.e. its activities, projects, teams, etc.) outside (it's macro environment, technological, economic, ecological and so on) and its payoffs (contributions monetary and non monetary to its stakeholders) this space too has a high dimension. The space occupied by the orgrammar may be higher or lower than the space occupied by the elements of organizations.

Story 12

Suppose for the moment we think in terms of systems of equations²⁷ which we are trying to solve by constructing orgrammar in Dasein. If the space or orgrammar has a higher dimension then there are many potential solutions to our problem of introducing order, or making sense; of course, none of them satisfactory because we know from Gödel, that there is always something excluded; always an Other. If the dimensions of the space of orgrammar are smaller than the space of orgrammar, then we must always be adding new elements to orgrammar to make sense of things, to introduce some order, or to introduce the order we would like. In either case, higher or lower dimension orgrammar as compared to the elements it is trying to make sense of, or organize, there is always something missing. Hence, there is a compulsion to restructure and restructure and control; to introduce structure, plot, themes, and actors with roles and spheres of action and causality; to impose narrative on antenarrative. There may be an illusion imposing narrative or increasing the dimensions of orgrammar will produce order, unambiguous solutions or meaning. But it is an illusion.

Ending the paper with a story of Sc'moi, few if any of the members really belong to a business school. They are the *Other* with respect to business schools, sometimes tolerated; or not. The practice of, and inquiry into, organization and management, should be freed from the extraordinarily tight imprisonment of the orgrammar of most contemporary business schools and consultancies. Business schools require the *Other*. Boje's work, including antenarratives reflects the contribution of Sc'moi; in acknowledging mystery, ambiguity, complexity, exposing the orgrammar underlying the questions, concerns and problems of business, raising the perception that alternative grammars exist, and are the root of creativity and discovery.

I should finish by acknowledging the contribution of my friends in Sc'moi to my thinking, and whatever value it has. Recalling Kafka's story, my first impression, 20 years ago, of Sc'moi, was that of opening a door

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9. Notes

¹ Kafka (1923) gives a number of possible interpretations of the Law in the text of The Trial.

² Searle (1998) gives a simple example of not stopping. If we ask a machine to find a whole number greater than 6 will stop at 7: but if we ask it to find an odd number that is the sum of two even numbers will not stop.

³ Jung (1958); Evans Wentz (1927); Baldock (2009)

⁴ See Boje (2001), Boje and Rosile (2002;2003)

⁵ Heidegger (1996); Dreyfus (1999). Dasein means literally being-here or being-there. The implication of choosing Dasein to describe the real world is that there is no separate intending subject (decision maker) deciding what to do; instead the subject is part of the world, inseparable from the world whose decisions are governed by the prevailing orgrammar or orgrammars. Heidegger's Dasein corresponds to the Buddhist notion of attachment; (wo)man's behaviour is programmed/conditioned by properties of orgrammar. This view is completely at variance with the stance taken by many economists and most academics in business schools (particularly strategists), in which rational subjects make decisions about a separate (predicate) world. Where Heidegger's view differs from that of contemporary cognitive science is in the possibility of living authentically; that is, being distinct from the crowd by being conscious of the predicament of death. Heidegger's limitation is that he seems to perceive that there is only a single *sphere of Being*. However authenticity in is surely a kind of meta cognition. See later comments, on the Bardo Thodal, on the absence of orgrammar nothingness and death.

⁶ The idea of interconnectedness of different spheres of Being is what Jung was trying to capture with his concept of synchronicity, and Swedenbourg with the concept of correspondences.

⁷ A mapping, as in (the relation of) a landscape to a map, is simply the transformation of one thing or symbol into another. Orgrammars are not axiomatic systems. But their incompleteness is demonstrated below (pages 6-7).

⁸ Lucas (1961); Penrose (1989); Searle (1998).

⁹ If relativism is seen in the sense of allowing the possibility of alternative orgrammars, then it is unexceptional.

¹⁰ Stories appear in many different media. They may be literary; plays, novels, short stories, fairy tales, comics or myths. They may be passed down through the generations verbally. They may be implicit in pictures, portraits, charts, maps, diagrams or tables of numbers, graphs, or cartoons: or told in film or TV, or in photographs or dreams or fantasies. Mathematics tells stories in its own language as does every academic discipline, or company report, or advertisement, or police or hospital record. Stories may be open works or they may be closed. The more open the work to interpretation, the closer it is to story; the more closed, the closer it is to narrative. Some narratives appear to be entirely closed, but they are opened up to alternative narratives by deconstruction, the appearance of différance, the continuing presence of the other or the shadow. The medium affects the message, the meaning and the interpretation. The intention of the author becomes irrelevant as the text of the story or the narrative is disseminated: ownership of intention rests with the reader, the viewer, the interpreter; his or her moods, dispositions; the influence of the crowd.

¹¹ Frank Knight (1921)

¹² Boje (2001) pages 1 – 2. Also Boje (2010, page 8), “[a]ntenarrative is defined as a bet on the future pattern, in (more or less) authentic scenario of event-space. It is also a before narrative that serves as a hypothesis of the trajectory of unfolding events that avoids the pitfalls of premature narrative closure.” Examples of ante post betting, sometimes known as futures betting, is betting on the winner of the World Cup or The Super Bowl, even though the final of that event may not take place for several weeks or months: see, <http://www.betting->

[explained.com](#). Antenarrative as a bet has the characteristic of story before plot and so on is imposed upon it: so the two senses of ante (before and bet) complement one another. Boje also defines antenarratives as co-evolutionary, self organizing stories whose exchange “shapes the future of organizations.” Antenarratives are “self organizing frontiers, as fragments that seem to cling to other fragments, and form interesting complexity patterns or relationships”.

¹³ Eco (1989). Open works allow choice among a multiplicity of interpretations up to the reader/audience. In fact it is difficult to imagine an interpretation that is not to some extent a communal thing. Otherwise I suppose orgrammars would be entirely private; a statement that is something of a koan.

¹⁴ Wittgenstein (1953); Forster (2004); Lyotard (1979).

¹⁵ There are many morphologies corresponding the dimensions of orgrammar we wish to focus on. Limit discussion for the moment to morphologies in Dasein. What we focus on in Dasein is determined by orgrammar. Figure 1 gives a broad indication of the dimensions (aspects) of organizations that capture our attention, for example; elements of the value chain; activities (subsets of value chain elements); categories from management accounting; elements from the balanced business scorecard, six sigma (or some such fad). Probably alternative morphologies should be aligned with payoffs of organizations and stakeholder groups. Denote set of all morphologies as **K** and particular morphologies, **k**, ($k \in K$) each containing $i = 1, 2, \dots, m$ elements. So **ki** are elements of a particular morphology.

¹⁶ The table below categorizes orgrammar according to figure 1 in the text. In the orgrammar of Dasein, for example, the categories FSX through to IFM are not exclusive or exhaustive so we have 256 (2^6) possible groupings. Considering the number of elements in each category, orgrammar is like a state vector of infinite dimensions that encodes everything about the state of Dasein at any instant: it is a state vector of possibly infinite dimension in Hilbert space.

F S X	FORMAL SOCIAL EXTERNAL	Outside: societal, codified, written: laws, regulations, treaties, contracts, rituals, traditions, constitutions.
F S M	FORMAL SOCIAL INTERNAL	Inside: codified, written: formal organizational routines, architectures, structures, systems, hierarchies, contracts within.
F P X	FORMAL PERSONAL EXTERNAL	Outside: codified, certified, accredited: formal education, shared paradigms and ways of thinking, qualifications.
F P M	FORMAL PERSONAL INTERNAL	Inside: individual education and experience, certified, codified, corporate: specific education, accredited skills, training and knowledge.
I S X	INFORMAL SOCIAL EXTERNAL	Outside: societal, group; informal (unwritten) customs, conventions, mores, morals, cultures, codes.
I S M	INFORMAL SOCIAL INTERNAL	Inside; societal group norms: shared values; corporate culture, customs, traditions, mores, codes.
I P X	INFORMAL PERSONAL EXTERNAL	Outside: individual, un-codified: personal history and values, behaviour, patterns, learned paradigms, mental maps, models, conditioning, habits of thought.
I P M	INFORMAL PERSONAL INTERNAL	Inside: As (IPX) individual behaviour patterns and mindsets, personal paradigms and schema for assessing the world, and solving problems; learned within the organization or the personal legacy of brought in.

Table 1

¹⁷ Shah (1966). Krugman (2010), transforms Nasruddin into “ the proverbial drunk who searches for his keys under the lamppost, even though that’s not where he dropped them, because the light is better there...” .

¹⁸ The completeness problem for axiomatic systems concerns whether every statement within a system is provable within that system; which for orgrammars such as **g** rules out statements like, T is not provable in **g**. Consistency means that everything that can be proved (logically) true cannot also be proved false which also rules out statements like the one above. Truth in this context should not be confused with meaning. In addition to 5 above see, Thomas (1995); Godel (1962).

¹⁹ Ayer (1952).

²⁰ See Boje and Rosile note 3 above.

²¹ Following Eco (1989), the greater the scope for interpretation, the greater the openness of a text. the openness of a text

²² Fechner (1907); Corbin (1990).

²³ Wiener (1950) says, that the information content of a message is in inverse relationship to its probability, the lower the probability the higher the information content (alternatively the lower the entropy of a message the higher the information content. Polyphonic messages must have greater information content than messages delivered by a single voice. To see this remember that probabilities are constrained to be less than 1. The probability of a message made up of polyphonic voices is the multiple of the probabilities of the messages from individual voices. Write the probabilities P of the messages from n different voices V as P(V1), P(V2),....., P(Vn), then the probability of a message Z delivered by n different voices is P(V1) times P(V2) times times P(Vn), which is less than the probability of a message made up of a single voice. Let us treat the ideas of meaning, interpretation, making sense as equivalent concepts. The meaning of a message is contained in the noise or interference between the sender and the receiver. Therefore, in contradiction of Eco, a message can have multiple interpretations, (there may be many ways of making sense of it) even if the information content of is high. Eco on the contrary identifies meaning with entropy. It seems to me that this aspect of Eco's view is unsatisfactory.

²⁴ Damon Runyon (2005).

²⁵ Russell' paradox is this. Consider the set R of all sets that do not contain themselves. If R exists then it is a member of itself if and only if it is not a member of itself. The set of all orgrammars G belongs to R
With respect to orgrammar, if $G \in R \{G : G \notin G\} \Leftrightarrow G \in G$.

²⁶ Perhaps this is what Jung had in mind when he wrote of synchronicity, or Swedenborg had in mind when he spoke of correspondences.

²⁷ Treating solutions as configurations of system states, we can imagine orgrammar as occupying a vector space of rank H. If the number of elements N exceeds H then perhaps we seek to expand orgrammar: the situation may be chaotic or random. If the number of elements N is less than H the solution space has rank H-N and there are many perhaps infinite potential solutions in Dasein. Orgrammar fixes a system in some system state, over a probability distribution of systems states. The lower the rank of orgrammar in relation to the number of elements, the more likely it is that the transition from one system state to another (trajectory over time) will be unstable and uncertain. Higher rank of orgrammar can give rise to SOC/phase transitions. See Matthews 2011.