

THE EUROZONE AS A KOAN: THE IMPOSSIBILITY OF SENSE MAKING

DRAFT

(April 4 2012)

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ABSTRACT

Koans arise from interdependence. The entire world is a koan. Koans are paradoxes. The current state of the Eurozone is full of paradoxes. At one level, Koans can only be resolved by seeing them from the perspective of an alternative orgrammar that recognizes interdependence. This is true of current EZ issues. Currently the state of the EZ is viewed conventionally as a set of independent issues, applying to each country separately. Making sense of koans or of the current EZ implies finding a new orgrammar. Preserving the koan structure of the problem may be a way of achieving such a difficult but necessary task. Ultimately koans point to such high degrees of interdependence that only unity exists. Sense making is impossible: observations that are also koans.

THE EUROZONE AS A KOAN AND THE IMPOSSIBILITY OF SENSE MAKING

1. INTRODUCTION

How do we make sense of the Eurozone [EZ] problem? Within the current structure of the EZ, schemes for making sense of it and policy design, that is, within the current orgrammar, we cannot. Organizational grammar, or orgrammar includes, conventional rules, ways of thinking, and making sense of things and has formal/informal, conscious/unconscious, internal/external, personal/social, tacit/explicit dimensions. The EZ is full of contradiction and paradox arising from the conventional orgrammar and the failure of the current business model. Conventional orgrammar¹ treats each country's problems in the EZ as separate, due to their individual mismanagement, when, on the contrary, the EZ is a connected system and the current problem was inherent in its original setup. The business model that has been dominant globally for 30 years and more, has failed. The EZ problem is part of this general failure.

This introduction relates basic themes in the paper; the EZ, a practical issue, with the koan, a mystical issue, that are both rooted in interdependence. Paradox and contradiction are the essence of a koan and characteristics of the process of sense making. Koans occur in many traditions and in literature and the arts. Three quite well known koans in the Zen tradition are: (a) *What was your original face, before your parents gave birth to you?* (b) *What does one hand clapping sound like?* (c) *What is the ultimate truth? The Cyprus tree is in the courtyard.*

In the sixteenth century, or perhaps earlier, a division between science and mysticism occurred. In a series of essays Bertrand Russell in 1918 made a clear division between them, and although sceptical about mysticism, he noted that its methods and approach could contribute to scientific discovery. The paper follows Russell's characterisation of mysticism. One proposition in the paper is that mysticism, in particular in the way it is expressed through koans, has real contributions to make to science, to management and to economics. Here we use the EZ as an area of application. Associating the EZ with a koan is itself a koan. Koans in various guises occur in many traditions, not only spiritual and philosophical traditions, but

¹ See Matthews, (2012)

they are intrinsic to the problems of everyday life. Koans, like many mystical techniques, have aspects that are ineffable. The paper says something about these aspects. More immediately, and Russell had this in mind, they encourage creative thinking. They are used as a technique for escaping from habitual practices and thought patterns: creativity in any part of life involves doing just this. It is widely understood that creativity, in the form of innovation and entrepreneurship has a contribution to make to business. It is also understood that emerging problems of this century, require new and creative thinking. The EZ is such a problem.

A second proposition is that a series of alternative orgrammars exist. Contradictions and paradoxes inevitably occur in any orgrammar. Their resolution requires adopting an alternative orgrammar, but this is extremely difficult to do. Orgrammars are firmly wired into organizations, societies and into the minds and behaviours of individuals. Koans exhibit contradictions and paradoxes. If these paradoxes and contradictions can be observed in the mind simultaneously, as koans, not pretending that they can be resolved within the conventional orgrammar, this offers a technique for discovering an alternative orgrammar that actually resolves them. We make sense of the world through orgrammars and a specific orgrammar expresses how we make sense of the world. Koans, if observed objectively offer a technique for switching from one orgrammar to another.

When contradiction and paradox arise within one orgrammar, we should look for an alternative orgrammar. Sooner or later, contradiction and paradox will emerge in the alternative. Inevitably they emerged in the business model that had produced unimaginable increases in wealth and income globally, over the last 30 years. As part of the process, the world became much more interdependent. Growth was founded on nations and firms seeking individual competitive advantage. The EZ and the single currency were intended to provide a framework for seeking national competitive advantage more effectively. Interdependence and the strength of interactions increased within the EZ and between the EZ and the rest of the world. Instability and a Great Recession (GR) emerged because actions, taken by nations that benefitted them individually, damaged them collectively.

A more general theme of the paper is sense making and its relation to interdependence. As interdependence increases so contradiction and paradox emerge, thus confounding efforts to make sense of a situation. Sense making is essential: but it is always an incomplete process.

In the limit, complete interdependence implies no differentiation between phenomena whatsoever and the impossibility of sense making.

The Eurozone

A feature of this era is an unprecedented degree of interdependence within and between nations and regions, and within and between phenomena, social, economic, political, ecological, demographic and so on. Conventional grammar treats these phenomena as independent, and each country's problems as if they were separate and isolated. Inevitably paradoxes and contradictions appear, because an grammar, based on the illusion that things are separate, is being mapped onto a situation in which things are connected.

Current approaches that claim to make sense of EZ issues and provide solutions do neither. The fundamental strategy is *muddling through*: providing a succession of temporary fixes, postponing breakup rather than avoiding it. Interdependence and feedback effects produce contradictions: things that bring wealth and growth also bring collapse of systems and measures to mitigate collapse heighten the likelihood of collapse.

The current strategy of the surplus countries or powerhouses of the EZ (effectively the original 6 that made up the original Common Market) is: (a) to treat a collective problem arising from interdependence, as a series of separate problems, residing entirely in weaker economies with high current account deficits and government debt; (b) to place the onus of readjustment, by imposing wage cuts, tax increases, spending reductions, unemployment and restructuring, on weaker economies. Meanwhile, the powerhouses whose surpluses are due to the deficits of the debtor nations, provide inadequate funds to bail them out.

Growth in the EZ and elsewhere, in the years up to 2007, was made possible by debt and current account deficit within the EZ and particularly, in the USA. Collapse of debt markets led to a worldwide crisis in the banking sector. Subsequent bailouts followed by *front loaded* measures to reduce debt spread contagion to financial sectors throughout the world, then to household, corporate and eventually to government sectors.

Interdependence suggests that *one thing leads to another*. Strong prospects are that Greece will quit the EZ, probably followed by Spain and possibly Italy. Countries on the periphery of

the EZ are mostly ignored since they account for a small proportion of the gross national product [GNP] of the EZ: but problems there are dire.

The EZ problem must be seen in the context of the current Great Recession [GR] that began in 2007 and looks likely to persist until 2017/2018. Problems are worldwide. Emerging markets (EM's) too are involved. USA can no longer act as world consumer of last resort, upon which spectacular Chinese and other EM growth over the last 25 years has depended. *Dirty floats*, especially an undervalued renminbi against the dollar, achieved by the purchase of USA debt by Chinese and other EM's sovereign wealth funds [SWF's], facilitated export led growth.

The GR originated in the banking sectors of the USA and UK and spread to bank and non bank sectors worldwide. In the preceding years, inequality of income and wealth increased, both within (most) nations and between them. No doubt social and political problems are connected to economic and business ones; the Arab Spring, riots in Chile, the UK and China; middle class unrest in the west.

Koans² and interdependence

Koans are associated with spiritual disciplines, especially with Zen Buddhism, but we also find koan type statements in Sufism, in literature, in science, philosophy, logic mathematics, and in art, for example, the Dadaists and Surrealists. We also find koan type statements and stories in myths, fairy tales, and dreams. Koan type statements have a similar purpose and origin. Their purpose to encourage people to adopt a different orgrammar; not only different way of making sense of things but a different strategy for dealing with them.

Some propositions

The relation between current EZ issues and koans hinges on: (a) their similarity, in that both reflect contradictions; (b) their origin in interdependence between phenomena previously thought to be separate. Resolution depends on seeing things through a different orgrammar. Perceiving phenomena such as the EZ as koans and maintaining their paradoxical, contradictory and koan structure makes what is a difficult shift, from one orgrammar to another possible. Thus koans can be a route to creative imagination.

² See Izutsu, (1982, 1983), Suzuki (1985, 1957) for discussion of koans.

The propositions above focus on a cognitive aspect of koans and their relation to orgrammars. Koan type statements and mysticism generally are intended to close off habitual thought patterns. They point to undifferentiated unity: the *real* reality, within which there are no distinctions. They are rooted in the complete interdependence of all things, events and realities and ultimately the absence of any orgrammar whatsoever. Since orgrammars are ways of sense making, koans ultimately indicate the impossibility of sense making.

Russell's propositions³

Mysticism and imagination are often associated with superstition and fantasy. The attitude is ingrained in the conventional orgrammar, even of academics who are critical of many aspects of the methodology of social sciences. So it is fitting to present the views of Bertrand Russell, a philosopher whose attitude to mysticism was sympathetic but sceptical.

Bertrand Russell in 1913, although disagreeing, suggested distinguishing features of mysticism. Since they relate to mysticism, Russell's observations apply to koans too. They are that: (i) mysticism represents belief in insight rather than discursive analytic thought; (ii) mysticism holds that phenomena are unified not separate; (iii) mysticism denies the reality of time. My propositions about koans are stronger than Russell's about mysticism. But he was respectful of mysticism and his commendation of it as an attitude to life and his proposition that science may be fostered by a mystical approach is in sympathy with my stronger propositions.

Plan of the paper

Section 2 discusses the nature of koans. Section 3 reviews the current situation of the EZ in the context of a koan. The final section returns to the general issue of sense making.

2. COMMENTARY ON KOANS

³ See Russell (1913).

A koan originally, in the T'ang dynasty (619 to 907), described a legal case example that could be used as a precedent in deciding upon subsequent cases. Later, in the Sung dynasty (969 to 1126), it came to describe a form of meditation designed to break down habits of sense making by presenting contradictions that could only be resolved by stepping out of conventional and habitual thought patterns and entering an alternative orgrammar. Accepting that contradiction and paradox is an essential part of any one orgrammar, provides a methodology for conceiving of an alternative orgrammar. This is an intellectual interpretation of koans.

In another sense koans were not designed to be meaningful intellectually. They deny the possibility of sense making. Sense making involves discovering patterns and regularities in phenomena; differentiating one thing from another by saying, for example, '*this is so*' and '*that is not so*' or '*this is the pattern*' and '*that is not*'. Koans are intended to point to the unity of all phenomena: and one way of viewing unity of all phenomena is to say that interdependence is so complete that all distinctions disappear.

Koans and koan type statements are found in many places as indicated below and they have the following things in common:

- 1.1 At the first level, a koan consists of paradoxical and contradictory statements that become meaningful if we are prepared to abandon habitual thought patterns.
- 1.2 Also first level koans are intended to provide a methodology for creative thinking, by forcing a person to hold seemingly contradictory or paradoxical ideas in his or her mind simultaneously.
2. At a second level, koans are not meaningful cognitively, nor are they intended to be. The intention is exactly the opposite. They are meant to be a complete break with thought.

Necessarily everything that can be said about koans is limited to the first level.

Figure 1 illustrates the creativity aspect of 1.2 above One source of creativity is the ability to hold paradoxical entities in the mind simultaneously. In figure 1, see a and d and a* and d* are distinct components of the koans cited above.

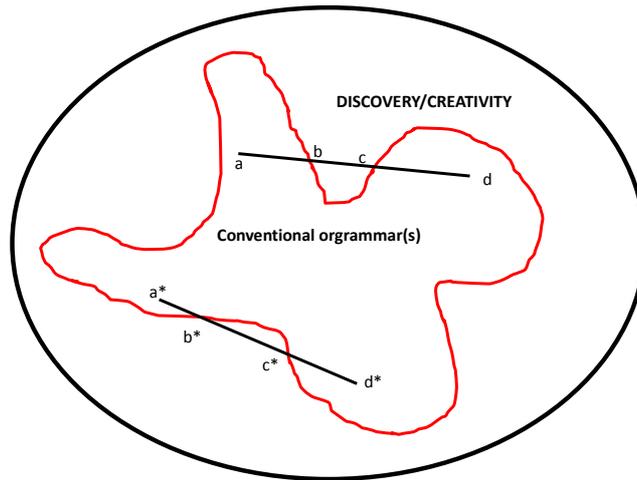


Figure 1

Some examples of koans

The best way of explaining koans is to provide examples. A few well known koans are as follows⁴.

- What was your original face, before your parents gave birth to you? (Buddhist traditional)
- What does one hand clapping sound like? (Buddhist traditional)
- What is the ultimate truth? The Cyprus tree is in the courtyard. (Buddhist traditional)
- Truth is indivisible, hence it cannot recognize itself; anyone who wants to recognize it has to be a lie. (Kafka)
- People are asleep: they wake up only when they die. (Islamic traditional)
- The world is a dream within a dream within a dream. (Sufi traditional)
- No man is so secure that he does not dare to climb. (William Empson)
- If the barber only shaves people who do not shave themselves, who shaves the barber? (Barber paradox)

⁴ I leave it the reader to decide whether they are first of second level koans.

- This statement is false. (Liar paradox)
- Does the set of all sets that do not contain themselves include itself? (Russell's paradox)
- [T]he separation between past present and future is an illusion, but a convincing one.(Einstein)
- To think of the EZ problem as a koan is itself a koan.

Type 1 koans have a philosophical content. Type 2 koans represent complete interdependence. We can think of interdependence in space, in space and between realities. Interdependence in space implies that all things are connected. Interdependence in time implies that all events, in the past the present and the future are connected. Interdependence between *realities* or spheres of Being implies that that are all interconnected⁵.

Interdependence in the limit that is interdependence of the highest degree, leads to a situation in which everything is indistinguishable. There are no distinctions in space, between things, nor in time, between events past present and future, nor are there distinctions between realities or planes of Being. We have unity that is impossible to comprehend, because it is natural to say that *something is something* rather than something else. But in the absence of distinction this is impossible to do.

3. KOANS INTERDEPENDENCE AND THE EZ

We borrow from ecology in an attempt to formalize the relation between interdependence and koans in relation to the EZ. Consider complex ecological systems. If there are N species, selected at random, in an ecosystem, the system becomes unstable as the number of species

⁵ This may have been what Jung had in mind when he wrote of synchronicity and Swedenborg when he wrote of correspondences.

and strength of interactions between them increases⁶. Contradiction and paradox are interactions or feedback effects between entities such as statements, events, concepts, that are not resolvable within a given or grammar. This is a form of instability, arising from interdependence that applies directly to the EZ, a complex system in which the number and size of interactions increased since it was formed. Two developments over the last 30 years have brought a new era of increasing interdependence as a result of (a) globalisation and (b) informationalism.

The current phase of globalisation currently is distinctive, because population growth and urbanisation has been exponential and worldwide and a dominant business model, capitalism has permeated almost the entire globe. Earlier versions of globalisation involved fewer people, fewer nations, older technologies and more diverse economic and social systems. From new media and technology, a new information age has emerged that is revolutionary, unpredictable and reinforces interdependence.

Many aspects of interdependence have surprising effects. Interdependence in space means that a system as a whole is qualitatively and quantitatively different from its components individually. Interdependence in time gives rise to feedback effects (diffusion, contagion, percolation or domino effects). An ultimate aspect of interdependence is that things can become so interdependent that they become undifferentiated: everything is unified; there is no other.

On the way to completeness and non differentiability, interdependence reaches a critical degree and instability arises. For example, as the number of species and the strength of interactions and interdependence (plus or minus) in an ecosystem increases, a critical point is reached and the system becomes unstable. Similarly as banks become increasingly interdependent (through mergers or interbank lending), systemic risk, that is risk of the entire system collapsing increases.

The GR began 2007 in the financial sectors of the USA and the UK spread to financial sectors everywhere, because of the interdependence between banks and the too big to fail (TBTF) problem. It also spread to the non financial sectors of the world. Then around

⁶ If m is the (average) number of links and a the (average) strengths of the links (plus or minus) and $N \gg 1$ (there are more than one species) is the number of species, a system becomes unstable once $ma^2 > 1$. See May (1974), Batiston et al.(2009) and Haldane and May (2011)

2009/10, the private sector crisis, spread to government sectors in the Eurozone. The first to feel this were the PIIGS economies (Portugal, Ireland, Iceland, Greece and Spain). It also spread to the peripheral economies of the Eurozone, the Baltic States and other states of the former USSR. Smaller states and PIIGS states (with the exception of Spain) make up too small a proportion of the Eurozone to present a threat, but Spain's share of Eurozone GDP of around 12% and Italy's share of around 20% is so large that their default would threaten the entire European project.

Much work has been done on diffusion within systems, but what we are concerned with in our context is diffusion, not only within systems but between them; between social economic, financial, technological, ecological systems for example. People accentuate diffusion and feedback. Social systems are active agent based systems in which people anticipate, plan and react. Hence they are even more difficult to control than systems in which agents are passive.

Since the natural state of an interdependent system is flux, but they operate according to a set of rules which attempt (a) to introduce stability and (b) to make sense of things. Rules or orgrammar works at many levels and has many (overlapping) dimensions; formal/informal, social/personal, internal/external to the organization concerned, conscious/unconscious tacit/explicit.

There are many alternative orgrammars. Every system or subsystem has an orgrammar or set of orgrammars. Resolution of a koan depends on adopting an alternative orgrammar to the conventional or commonly accepted one. Issues that appear to be contradictory are only contradictory within a particular orgrammar. Such is the situation facing businesses and governments today. The business models that are representations of the current orgrammar and appeared to work in the 20 or 30 years up to the GR eventually failed largely because they became out of tune with growing interdependence.

Problems of the EZ are a subset of the more general GR problem. Attempts to to explain the GR reflect the nature of the conventional orgrammar, to map an independent interpretation on an interdependent reality. As summarized in figure 2, four competing interpretations are offered; (i) the low interest rate policy of the USA Federal Reserve; (ii) a global savings glut; (iii) financial innovation; (iv) moral hazard. We add another, samudaya, thirst, craving, attachment, which underlies the conventional business model.

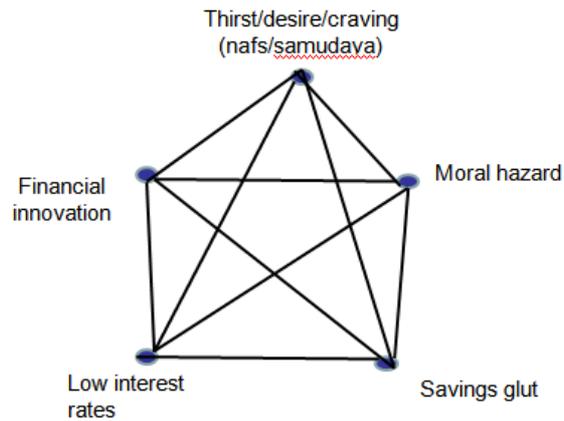


Figure 2

When the *high tech bubble* burst in the late 1990's base rates fell from over 6% in 2000 to 1% in 2003. This it is argued set the stage for the housing bubble and culminated in the collapse of Bear Stearns in 2008 and the onset of the GR. The global savings glut is said to have originated in the EM's especially China, who originally ran current account surpluses as insurance against the kind of financial crisis in Asia in 1997/8, but transmuted into the export of SWF's to depress the renminbi. Another suggested culprit is the *originate and distribute* model of bank rewards that increased the systemic risk of the entire global financial system. This last suggested contributor was reinforced by moral hazard; that is the widespread knowledge that governments would bail out distressed companies rather than allow individual bank failures infecting the entire global financial system.

With respect to the conventional explanations of the GR two preliminary observations are made. First they are not separate *causes*, but interdependent *causes*. Second one we adopt interdependence as a theme, it becomes difficult to identify cause and effect. The question arises as to when the problem began and when it ended; *what happened before the beginning and after the end?* The technique in social sciences is to assume arbitrary start and end points; borrowing from chaos theory both being sensitively dependent on initial (and final) conditions.

More fundamentally, underlying the conventional explanation is attachment, or what the Buddhist, to cite one tradition, call *samudaya*. The search for individual competitive advantage, by government, firms and individuals has driven the conventional business model; that has been so successful globally for the last thirty years or so, and has now failed, the current EZ crisis being an example.

4. THE STATE OF THE EZ

It is useful to summarize aspects of the discussion so far. Koans are partly made from contradiction and paradox that arise within a particular orgrammar, that is, conventional rules, ways of thinking, and making sense of things. In so far as they have intellectual content, they are resolved by adopting a new orgrammar. Eventually new contradictions and paradoxes will appear within the new orgrammar. The shift from one orgrammar to another is difficult. The technique of koans is deliberately to hold contradictory ideas at the same time as a way of achieving the shift.

Koans arise from interdependence. If systems contain only entities that are quite separate, and don't interact, there can be no contradiction, or paradox. The paradoxical and contradictory aspect of koans creates instability, at a critical point as the degree of interdependence increases. The koan in the EZ problem arises because conventional sense making and policy design is that it maps an orgrammar based on independence, onto an interdependent reality; for example, the conventional business model founded on individual competitive advantage.

Contradictions within the EZ

Inherent contradictions exist between a common exchange rate and

- i. unequal competitiveness and
- ii. decentralised economic policies:

First, economies in the Eurozone have different competitiveness, but in single currency they cannot use exchange rate flexibility or devaluation to correct it. German productivity and competitiveness is much higher than elsewhere. Thus Germany has a current account surplus only because relatively uncompetitive nations in the EZ (and elsewhere) have current account deficits. Since national balance sheets balance, a current account deficit is matched by an inflow of capital, which partly explains the extent of government and private debts in the weaker economies. Attention has been focused on Greek non competitiveness, but there are bigger problems on the horizon; Italy and Spain, for example, are big economies that account for 20% and 12% respectively of the Eurozone GDP.

Second, the Eurozone was set up without an overall fiscal or monetary authority, to control the government finances of member states (government expenditure, taxation and

borrowing). The European Central Bank (the ECB) did not carry out the normal functions of a Central Bank (a) to act as a lender of last resort to member banks or (b) to issue Eurobonds on behalf of the Eurozone. The lack of Eurobonds means that when individual governments need to raise funds, they must do so, on the reputation of their own country, its competitiveness and its likelihood of default. Hence borrowing costs diverge wildly within the Eurozone (yield spreads). So the costs of refinancing debt are high.

Under the conventional orgrammar, such contradictions would be resolved. A single exchange rate would impose increased competitiveness on uncompetitive nations, because to compete, they would have to restructure and increase their competitiveness. Instead of capital inflows (SWF's) providing funds to finance restructuring projects, they were used for demand creation, via public sector jobs and wage increases. The task of matching German competitiveness was so impossible, within a sensible time frame given the political constraints and unemployment risks. Also funds were borrowed by the weaker economies at rates that were attractive borrowed at rates high enough to attract lenders willingly from the strong economies. Thus underlying the highly interdependent and reciprocal nature of the EZ problem and worsening disparities in competitiveness.

Deficits and debt in the uncompetitive nations was simply the reflection of current account surpluses and outflows of capital from nations in the EZ whose higher competitiveness could only sustained because their surpluses and outflows created the effective demand that made their higher competitiveness possible in the first place.

Solutions are currently being sought within the conventional orgrammar and business model that has failed. Solutions take two forms;

- a. The onus of adjustment has been placed on the debtor nations within the EZ, although their problem is simply the image of the problem of the creditor nations.
- b. The European Central Bank (ECB) and other financial initiatives, the European Financial Stability Fund (EFSF) and the European Stability Fund (ESF) and the International Monetary Fund (IMF) provide insufficient funds to cover the net present value of Eurozone debt.

These contradictions that stem from imposing an orgrammar based on independence upon a reality that is interdependent. They will result in default in one form or other, the most

probable being Greek withdrawal from the EZ, perhaps, followed by other nations in the EZ since the EZ is an active agent based system.

Front loaded measures that give priority to deficit reduction rather than creation of demand, worsen the EZ problem; an observation that leads to consideration of broader interdependence, between the EZ and the rest of the world.

Global interdependence

Until 2007 the USA was not only the worlds' biggest economy but the world's biggest consumer. The situation of Germany in the EZ is mirrored by the relation of China to the USA. Recent high growth rates in China and other Emerging markets (EM's) were made possible by USA deficits, covered by inflows of SWF's, especially from China. These SWF's, (as *dirty floats*) kept the dollar high relative to the remimbi, making goods cheap and making export led growth possible for China and other Emerging Nations (EM's).

Decline of the USA as the world's consumer of the last resort brings further contradictions. If the USA imports less, where will world demand come from? The savings ratio in China is approximately 60%. The one child family policy plus the lack of a welfare state in China means that this is unlikely to change. In 2010 China devoted 50% of its GNP to investment, further increasing world potential supply at a time when there is already deficient global demand (excess supply).

Global supply outruns demand

Deficient demand is periodically endemic in capitalism, resulting in instability. Conventional economic thinking since the 1970's has focused mainly on supply, forgetting that supply and effective demand are interdependent, (not in the sense of Say's law, that *supply creates its own demand* but) in that growth of output (supply) is only sustainable if effective demand grows accordingly.

Spectacular global growth in this era has come from (a) technical change and (b) increases in world population and urbanization. According to the conventional orgrammar, both should initiate self correcting mechanisms with respect to demand and employment.

The initial effect of technological change is to create unemployment especially among the unskilled, but eventually increases in income create greater demand and more jobs. Similarly International trade between EM's which are relatively labour abundant and developed markets (DM's) capital intensive which are relatively capital intensive should close the gap between wages in the two types of economy. Wages of unskilled worker in the EM's should rise relative to wages in the DM's. But overall demand increases, and according to the conventional orgrammar, the proportion of skilled in comparison to unskilled workers in the DM's should increase.

But increases in the numbers of workers in the global labour force have been of a different order than in previous eras: increases of billions rather than millions. Also the degree of interdependence (number of linkages and the strength of linkages) between the DM's and the EM's has increased as a result of the new era of globalization and the information revolution. Technological change has been particularly labour saving and the possibility of outsourcing has increased. Both skilled and unskilled jobs in manufacturing and services have been affected. Many jobs that were considered skilled have become unskilled as the power of computer algorithms, in offices, research, and throughout value chains and supply chains. Services have become tradable as a result of the communications revolution. The communications revolution has also been global, extending to EM's as well as DM's. So a stimulus exists to transfer jobs to transfer jobs requiring new skills, as well as jobs rendered unskilled, away from DM's to EM's has increased.

Thus conditions bringing about economic instability have increased; larger numbers of people, products and services; more interdependence greater strength of interdependence as a result of globalization and the information revolution. In the DM's, the power of corporates has increased and that of labour unions has diminished. There are more sources of instability; unemployment, job losses and widening differentials of income and wealth. Widening differentials also have an impact on the endemic problem of capitalism; the enduring tendency for potential supply periodically to outrun demand.

One of the unexpected effects of the conventional business model has been that income inequality, as measured by Gini coefficients, has increased between nations and within them. In much of Europe, certainly the UK, in the USA, Gini coefficients have increased. The Occupy Wall Street chant '99% goes to 1%' is approximately correct.

A very small proportion of the population own most of the wealth and grab most of the income. This small proportion of super rich, spend hugely but, most important, they spend a smaller proportion of their income than the less rich. Hence the redistribution of income to the rich reduces consumption.

5. CONCLUDING REMARKS

This paper is part of a general scheme to reduce over specialization and to bring closer some of the artificial divisions that have arisen between theory and practice, academic and consulting work, science and the arts, mysticism and materiality. A major division arose, for good reasons, in the sixteenth century, between science and mysticism. The paper is mainly concerned with the latter relationship. As noted earlier, Bertrand Russell distinguished between science and mysticism a hundred years ago: this paper follows his characterization of mysticism.

The focus of the paper is on a particular aspect of mysticism, the koan. Koans are a technique associated with Zen Buddhism but Koan type techniques are to be found extensively as teaching methods in many schools of mysticism. Sufi stories, Nasruddin stories for example. In ways the Hadith in Islam can be considered as koans, as can the phrases that are repeated in Sufi dhikr. The Shahada of Islam, '*There is no God but God*', might be considered as the archetypal koan. We find koan type statements in mystical sections of the scriptures of most religions and in certain types of meditation exercises.

Outside religious or mystical texts, myths and fairy tales have elements of the koan. Often fairy tales concern a riddle, or a dragon, or some problem that threatens confusion, contradiction and instability into a kingdom. The solution is found by a simpleton, an idiot, a child, a despised youngest son or an animal. The point is that the issue, whatever it is cannot

be solved within the existing orgrammar. It requires a non conventional solution. Similarly many issues in management require solutions that lie outside the normal science or orgrammar of the conventional business model that has dominated thinking for more than thirty years. We have chosen the EZ problem to typify current management problems, because it typifies the need for an alternative orgrammar. As noted earlier, some of the puzzles and paradoxes that heralded advances in science, within the conventional orgrammar, had the status of koans. We might repeat the phrase that *to think of the EZ problem as a koan is itself a koan.*

We have distinguished two aspects of koans, both related to interdependence. The first type have are intellectual in that a resolution exists; but the resolution can only be grasped by adopting an alternative orgrammar. Further this aspect of koans offers a method or technique for the difficult task of shifting from one orgrammar to an alternative orgrammar. The ability to change out of the habitual orgrammar we have associated with creative thinking or creative imagination.

The last observation is relevant to the distinction that is habitually made between practice and theory. This distinction is artificial. As the last observation suggests, the reality of practical issues can only be approached through via some orgrammar or other. A further consideration is that management in general and the EZ problem in particular, requires creativity. And koans offer a route to creativity. Thus koans, and we might argue, mystical disciplines generally, offer a consulting methodology: a practical route to creative thinking in management and, as Russell suggested, a complement to the scientific approach. There are further implications too. It is suggested that a *Technological Singularity* approaches, which on one extreme interpretation, may lead '*to the end of the human era*' as the mathematician Verner Vinge puts it, because the capacity of AI may expand beyond the capacity of humans to understand it. A milder interpretation of *Technological Singularity* is to say that the capacity of computers to generate problem algorithms may expand sufficiently to cast doubt upon the conventional assumption that the consciousness of human beings is limited to intellectual functions. I don't agree, but it may be so. However we should at least raise the question about whether the assumption is too limited. What was a good reason for separating mysticism and science in the sixteenth century may no longer be so good. This brings us to the second aspect of koans.

The second aspect of koans is that they represent a break with thought altogether. We have chosen to try to approach this ineffable aspect of koans through the lens of interdependence. Interdependence has dimensions in space, time and between realities. Consider the koan, *complete interdependence*. Complete interdependence in space implies that all things are completely connected, complete interdependence in time implies that all events, past the present and future are completely connected and complete interdependence between *realities* or spheres of Being implies that they are all interconnected⁷.

Interdependence in the limit or in the highest degree, leads to a situation in which everything is indistinguishable; the unity that Russell referred to as a goal of mystical practices. In this case, there are no distinctions whatsoever, in space, time, nor reality. We are trying to conceive of a unity that is impossible to comprehend, because it is natural to say that *something is something* rather than something else. But in the absence of distinction this is impossible to do.

Complete interdependence in our scheme is the absence of any organizing principle or orgrammar whatsoever. The absence of an organizing principle *means* that we must dispense with the idea of meaning or sense making all together. Distinction between possibility and impossibility disappears altogether, as does the distinction between potential and actual. Causality disappears because beginning and end, now and then past and present are one. Choice disappears altogether, since everything coexists and does not exist; no difference. Ultimately sense making is impossible. Yet there is an obligation to make sense of things.

⁷ This may have been what Jung had in mind when he wrote of synchronicity and Swedenborg when he wrote of correspondences.

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