Feral futures: Zen and aesthetics

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A B S T R A C T

Studies of 'futures' have hitherto focused on those that are predictable and 'tame', and on those that are unpredictable and 'wild'. Here we consider a new class, the 'feral'; which are expectations that things might be made worse by risk-based actions. The type case is the nuclear accident at Three Mile Island, where operatives assumed that what was unfolding was of a sort described in their manual, and discovered too late that responses based on that assumption were making the situation worse. In this paper we review the idea of 'feral' and how it applies to futures, and discuss the different modes of engagement (or non-engagement) with feral futures. To make feral futures manageable, we suggest two ideas from other spheres of activity. Zen is a practice and philosophy which enables us to drop our preconceptions and thereby to respond to emerging, unprecedented situations. Aesthetics articulates a particular way to sense and appreciate realities intuitively, again enabling a direct response. The combination of Zen and aesthetics with scenario practice in the tradition of Pierre Wack provides a promising mode of response to emerging feral futures.

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1. Introduction and organization of this paper

In this paper we present feral futures as a specific and problematic category of futures which we believe has not been identified before. We understand 'futures' in the sense that Sardar [1] meant it in the context 'futures studies', that is, as involving: wicked situations; diversity, with the term self-consciously and explicitly in the plural [2]; engaging a sceptical stance; and bearing fruit largely in the present. As Gordon [3] put it, "Futures research is the systematic study of what might be". Futures can be thought to involve an event, but may equally entail gradually unfolding processes, which may be noticed-or not and understood- or not. Futures are thought of and considered in the present, which as Inayatullah remarked, has itself become only one of many possible futures of, or in, the past ([2], p. 129). We are specifically concerned with those parts of the future that cannot be predicted [4] and with those that escape agency: those that come to an individual or collective decision-maker independent of intention, and that cannot be influenced ex-ante.

We have organized the paper in five sections. In the first section we explore the characteristics of feral futures and how these make them uniquely noxious, challenging and problematic. In the second section we explore ways in which feral futures might be engaged with constructively. The efforts in this second section mainly aim to discover feral futures early in their unfolding, so that their potential developments can be arrested and their possible effects mitigated or even transformed. In the third section we suggest that Zen practices and in the fourth section that aesthetic philosophy are promising approaches to address feral futures. The conclusions comprise the fifth section.

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2. Feral futures

Many studies of the future are properly focused on contingencies that can be managed by methods inspired by those of the mathematical natural sciences. The influence of mathematics and Bayesian probability means that many of these methods seek to identify the more probable, and the less probable, possibilities or even outcomes through forecasting and prediction. The conditions for this to be an appropriate approach include: that there has been a substantial accumulation of facts over time to constitute a data base of adequate strength; that the data base exhibits patterns which can be modelled with significance; and that there is reason to believe that the data of the past is relevant for a future condition, along with the models and the 'fit' that these have to the data base's patterns. Bayesians would add that judgement and its biases also should be explicitly taken into account. For instance, when one crosses the street, one uses such an approach: The data base one has accumulated over time on how quickly one can get across a street of a given width, in relation to the data base one has of vehicle speeds and driver behaviour in the area, allows one to estimate the risks, costs and benefits of crossing – or waiting to cross, or moving to another location to cross – at any given point in time. And one would attend to how much in a rush one is and how this might bias judgement. Such estimates of the future permeate our life – whether they are used to land aeroplanes, schedule classes, determine hotel prices and store opening hours, or anticipate mail delivery. We call this first category of futures "predictable futures". In predictable futures, on the basis of past experience, we have justifiable expectations of what the future will hold. This approach broadly corresponds with what Inayatullah [2] called the 'predictive' epistemological approach to the future.

There are other types of future conditions where the data set from the past is not considered to be relevant for an emerging future. Beyond normative or design-oriented futures [5], this might also apply to situations such as a new type of pandemic; or emergent social behaviour such as the hippy communities or the civil rights movement; or to the use of a technology that was unimaginable in the past, as has been the case with SMS texting, Googling on the world-wide web, or networking with Facebook. In such conditions the forecasting of outcomes from novel developments and their probability is understood as impossible, for forecasting involves (literally) casting forward yesterday's data set into the future, and assuming the future to be like the past, but only later. It is in situations such as these, where the future is unpredictable, that scenario methods provide a better alternative to forecasting [6]. We describe these uncertain futures, escaping probability and forecasting, as "unpredictable futures". On the basis of past experience, in unpredictable futures, we know that in the future also there will be surprises, events that could not have been predicted in advance. These are the 'unknown unknowns' that have recently become notorious.

In this paper we introduce a third type of futures, which arise when futures previously considered to be predictable are expected that they might become, unpredictable, without having been thought to be unpredictable to start with. We call these 'feral futures'. Our stance in identifying feral futures is broadly compatible with Inayatullah's 'critical epistemology' [2] inasmuch as it clearly challenges the dominant logic of the future of those in power, involves distancing, reflexively attends to language in a Foucauldian [7] tradition, and makes the future problematic. However, as we shall see, we differ with him in that we do think that an approach to re-considering the possible is viable in engaging with feral futures.

The word 'feral' according to the Oxford English Dictionary, originally related to that which is "of a deadly nature; fatal", as early as 1621. In the 1700 and early 1800s the meaning was extended to matters "funereal or gloomy". But we use the term in its more recent connotation, where it is "now often applied to animals or plants that have lapsed into a wild from a domesticated condition", a sense popularized by Darwin in His 1859 Origin of the Species: "*The dovecot pigeon..Has become feral in several places*" (p. 18, cited in the OED). Feral species, once domesticated but returning to the wild; may be accepted by the wild, or may severely disrupt the 'wild' ecosystem which they (re-)enter. We know that if a feral species enters a wilderness into which it was not native, it may actually cause native species to disappear. Sometimes a feral species may become 'naturalised', as happened with plants and fauna in places like the Azores Islands; but feral species can also transform and degrade a habitat, as with rabbits and camels in Australia. It can even happen that a wild species over a more or less long time becomes feral, as when large mammals (as bears or goats) lose their shyness of humans and become a nuisance or a hazard, as their behaviour becomes unpredictable. We now know that we must prepare ourselves for feral futures, as the unfolding uncertainties are deep and potentially dangerous. As Slaughter remarked, the industrial period has progressively undermined the capacity of the planet to support life ([4], p. 373). We cannot predict how this man-made unsustainability might work out. Specifically, we are concerned that in the process of stumbling upon unfolding feral contingencies, our previous experience can be misleading, and events that we thought we could predict or prevent turn out to be very different or could even have dire consequences. It is thus important to imagine the possibility of a given future becoming recognised as feral as early as possible, so that futures research can help to provide early warnings and also help to identify policies –and things one should stop doing- with as much time as possible to do so ([3], p. 26).

We suggest that an example of a future that was recognised as feral later than it ought to have been has been the recent financial crisis: the Sub-Prime crisis that first became the Credit Crunch; then becoming the Banking and Financial Crisis; giving rise to public debt crises in Iceland, Greece and Ireland and even a currency crisis for the Euro. Here items that had been domesticated, calculable, labelled, and probabilized as risk [6,8] from the wilderness of uncertainty actually brought about more uncertainty instead of being tamed. Another case of a recent feral future was the April 2010 oil blowout in the 'Deepwater Horizon'—Macondo well owned by BP in the Gulf of Mexico. It seemed until then that the technologies to explore for oil and gas had been entirely tamed, with highly developed scientific knowledge governing all aspects of exploration and production. Yet thanks to a combination of greed, corruption, over-confidence or even arrogance, and incompetence (rather

as in the Credit Crunch), human intervention created an unwanted unfolding situation that could not have occurred in the wild. All feral futures are anthropogenic, as it is human intervention that does the taming in the first place; and then humans weaken, re-locate, damage, or even destroy the domesticating system. More generally, parts of the society-technology-nature system which had been thought to have been tamed, such as global food and water systems or biotic disease, now show signs that they might be going out of control through human intervention and are hence in a situation where they could become feral.

Comparing the three sorts of 'futures', understood as the expectations about the possible or plausible or imaginable unfolding of events; we have first the 'predictable' or 'tame' futures based on reliable and relevant experience, known judgement patterns, and governed by 'risk'. Here we have justifiable expectations that the future will be (more or less) like the past. Then there are futures considered to be 'uncertain' or 'unpredictable' and as not tame, 'wild', where we are aware of our ignorance about what might happen. With these uncertain ones, we have prudent expectations that the future may well be be radically different from the past; and we are moved on to imagine alternative futures—much as in Inyatullah's 'cultural epistemology of futures' [2]. Now we must consider feral futures, where one can expect the possible and unplanned transformation of what had been considered 'predictable' into new 'uncertain' situations through human agency. In futures which might become feral, one must activate a reflexive awareness of our own possibly erroneous optimism, where we appreciate that our previous expectations had been neither justifiable nor prudent. In feral futures recognition that continuing risk-based interventions may be contributing to unknowable unfolding paths of danger is required, but difficult to obtain.

3. Engaging feral futures

Doing something about feral futures – beyond recognizing them, often too late [9] – is peculiarly difficult, as that involves rapid learning, and more urgently, unlearning. To an extent the epistemological stance to engage feral futures resembles Inyatullah's 'critical' epistemology [2]. This is because it involves reflexively analysing the power and discourse of the present, and to critically assess how it was remarkably allowed to emerge from myriad alternatives. But it differs from critical epistemology in that the feral futures stance seeks to create scenarios to consider how things might become feral, and seeks to arrest these unfolding possibilities of situations becoming feral as early as possible, to imagine and take both corrective and mitigation actions as cheaply and effectively as possible.

On the one hand, attempting to deal with the possibility of a future becoming feral by the domesticated approaches such as 'risk management' (with quantified probabilities and harms) is very unlikely to succeed, for the 'risk' involved in a feral future is no longer domesticated but has morphed into an unprecedented, unidentified, unpredictable, unclassified new uncertainty which at least at the beginning is difficult to name, scope, or define. On the other hand, recognising that feral futures have deep 'uncertainty' (in the sense of F. Knight and J.M. Keynes) may be the beginning of wisdom. But as the newly developing uncertainties and how they might further unfold are in this situation considered feral rather than wild, one must also take into account that human agency and responsibility have inescapably shaped their specificity in ways that make these futures differ from the wild ones. So futures that one considers might become, or are becoming, feral involve contingencies that cannot be managed as if they were "naturally" wild ones. In the recent history of our science-based civilization, many, if not most 'wild' uncertainties have been subjected to attempted or successful domestication, to managerial action within the socio-technical, or ecological niche in which they had evolved. This will not work with situations considered as possibly feral.

We can illustrate how a future can unfold into a feral future with an example. An initially disorganised and 'wild' (in the sense of belonging to their natural habitat) group of people come together with an ideal to oppose an abhorrent regime that has been foisted on them. This group becomes trained, equipped, guided and abetted by a (domesticating) foreign power to support its efforts to fight the abhorrent regime, thereby, over time becoming a 'domesticated' guerrilla group. This apparently domesticated group follows its sponsor's direction to some extent, to continue being supported; while it simultaneously also pursues its own objectives, gaining strength. At some point, it turns on the domesticating foreign power, and from their point of view – usually too late to arrest the unfolding situation – it becomes feral from the point of view of the domesticator. According to some observers (1) this is the story of the Taliban, originally Mujahedeen supported by the Americans to fight a proxy war against the USSR in Afghanistan, who drove the Russians out of their country and now fight against the American presence there and are now recognised as being incapable of military defeat by the US-led coalition [10]. Another well-known example of how futures can become feral is how the exploitation – often by foreign firms – of natural resources in a given location 'curses' those in that location. Instead of becoming wealthy through the 'realisation of the rents' that the exploitation of the resource could offer, the people come to suffer from this situation, as the rulers can buy in security, steal the resource rents and place them securely abroad, and dispense with the consent of the governed [11].

One difficulty in recognizing futures that could become feral early enough to engage them productively is that they almost inescapably involve 'uncomfortable knowledge'. As E. Coulson put it in her 1985 Malinowski Award Address,

> "It is a common charge that the social sciences, including anthropology, are unable to produce results in the form of generalizable principles that can be applied to particular cases. In fact, this has not been our primary problem... Our problem arises rather from the fact that our research challenges what others want to believe; our problem lies in obtaining an audience that will listen when the information is not palatable (p. 193)... "what we have is

uncomfortable knowledge, the kind of knowledge that challenges established clichés and puts in question accepted solutions, and so those who champion them" ([12], p. 195)

For the holders of power and authority, uncomfortable knowledge entails what we may call a 'Semmelweis syndrome', based on a real incident in nineteenth-century Vienna [13]. In such syndromes the official response by healthcare administrators to a warning of a feral future where medical students may be unwittingly killing mothers in their facility was along the following lines. "*How dare you accuse our medical students of killing women in childbirth! I would never entertain such a monstrous accusation without full experimental proof, and I would never permit the experimental investigation of such a monstrous accusation*". For a contemporary example, we might have: "*One cannot allow the mission of the Church as the stern and infallible guardian of sexual morality, to be impeded by publicity about the actions of a few aberrant priests*" [14]. Uncomfortable knowledge tends to be suppressed because it 'sends the wrong message' about those in power—that the authorities got it wrong. Inayatullah associated 'uncomfortable planning' with his cultural epistemology of the future, as "in most cases, individuals continue to believe that their cultural vision of the future will remain the c dominant vision of tomorrow" ([2], p. 126). But here we take the invitation to attend to and welcome uncomfortable knowledge as more consistent with his 'critical' epistemological stance, where the discomfort also extends to questioning the power equations in place. Had the uncomfortable knowledge offered by Roubini and Taleb been appreciated, instead of Madoff's soothing promises, corrective action for the economic crisis could have been taken earlier.

When a situation that might become feral has not been identified as possibly as such, it is normally treated as domesticated. This happens as those trained to deal with a given class of unfolding situations by their profession, and those wielding the power to deploy domesticated procedures, both have a vested interest to show that their tools still apply. We have contended in an earlier version of this paper, co-written with two other colleagues and presented at the 2010 International Risk Assessment and Horizon Scanning Conference in Singapore in March [15], that risk analysts have on many occasions assumed and asserted that their tools, designed to deal with domesticated risks, are universally applicable. But experience shows that some situations are actually worsened by this policy. This is what happened in the "Normal Accident" situation described by Charles Perrow in analyzing the Three Mile Island nuclear accident [16]. He discovered that the operators took the unfolding situation – later called an accident – to be a 'domesticated' failure for which contingencies had been planned ahead in their manual. However, the sort of accident that was actually beginning to develop had not been foreseen, and their following standard procedures, erroneously thinking of what they saw as a domesticated situation, compounded the danger and unmanageability of the situation and made it feral, as the possibility of its becoming feral was not considered. What the operators had considered a 'predictable' future eventually became a feral future, but only when the situation was visibly out of control, with unknown forces at work inside the damaged reactor. We suggested in the 2010 Conference that important aspects of what risk professionals call "systemic risk" is actually not a risk: the probabilities are unknown, and the impacts and their boundaries are unknown, so it cannot be a 'risk'. That term 'risk' is used for a situation in which the impact and probability can be known in advance, labelled, priced, traded (bought and sold) and 'managed'—in other words, risks are domesticated. Treating a situation that is not a risk, as if it were a risk, can contribute to make it feral. This is the roles that the CDS and CDO financial products (collaterized debt swaps and collateralized debt obligations, respectively) played in aggravating the 2006–2011 crisis [17]; while they were intended to spread the control of the risk; they actually compounded uncertainty, unpredictability and danger. This misguided attempt to tame an unfolding problem actually made the situation 'wicked' in the sense that Webber and Rittel [18] proposed the term, and hence feral.

Hence when an 'early warning' of a future possibly becoming feral is raised, the initial response may well include elements of 'cognitive dissonance' and inevitable doses of denial [19]. The accusers who attempt to raise the alarm might be considered as unwelcome whistle-blowers. They can be punished even more severely if they are eventually proved correct, as they effectively discredit and thereby de-legitimise the authorities [20]. This type of denial was present in both in the Credit Crunch and the BP blowout; whistle-blowers of all sorts were ignored and/or derided, while the regulatory authorities were deep in fantasy or even corruption [21].

To summarise, feral futures and ways to uncover and engage with exhibit at least some of the following characteristics:

- The domesticity of something tamed in the past starts to become (or is understood as possibly becoming) untenable—the domestication begins to become ineffective, and possibly even a driver in the unfolding of the feral situation.
- Anthropogenic action is a necessary and important driving force. Feral situations do not emerge 'naturally' in the sense of being independent of human agency.
- Confusions about the scope and sustainability of domestication involve erroneously taking something that is fundamentally becoming uncertain and difficult to catalog as a version of something already domesticated and manageable—often as a risk.
- Early warnings or early signals of what might constitute a feral future will be experienced as uncomfortable knowledge and subject to denial or suppression, as they can challenge existing cultural norms and power equations—particularly through questioning the relevance of truth claims or established expertise.
- People responsible for producing early warnings on early signals that would suggest a feral future, however courageous they might be, will often be ignored, suppressed, or belittled as scare-mongers [22].
- Feral futures will exhibit many of the characteristics explored in post-normal science [23]: facts uncertain, values in dispute, stake high and decisions urgent.

• Critics and whistle-blowers need to be included in 'extended peer communities' to control the quality of the conversations that seek to establish a future as feral.

How are barriers blocking the recognition of futures that are imagined or considered to have the possibility of becoming feral to be overcome before they have catastrophic implications, as in the case of the Taliban, the resource curse, the credit crunch, or the BP Macondo blowout in the Gulf of Mexico? While the characteristics above lead us to believe that the 'feral' aspects of 'feral futures' make these particularly difficult to engage with; it is the 'futures' component of "feral futures" that we think provides the opportunity to being able to engage with them. Psychologically and epistemologically, the future can be considered to involve a 'safe' transitional space [24] that operates at a higher logical-type level than that which it addresses [25]. Here no one is, or can be supposed to be, at fault. In the same way that censors were formerly evaded by the telling of tales ostensibly from faraway or nonexistent places from a stance outside the system, now the internal censors of threatened individuals – such as the responsible officials – can be evaded by the use of fictional approaches placed in a small set of ostensibly nonexistent future situations. Within those far-away futures, tales can be told without implicating or threatening anyone still back here in the present. That is an important aspect of scenario planning which – with the help of Zen and aesthetics – offers a glimpse of how feral futures might best be engaged. Indeed, we believe that feral futures can be addressed with the help of futures practices that rehearse possibilities that are 'hard to accept', or 'uncomfortable knowledge'—the very possibilities which would be denied or denigrated if located in the present. We do not think that scenario work that limits itself to considering only unlikely, 'uncertain', or 'hard to imagine' yet 'just plausible' contingencies would suffice. For situations in which the mere possibility of a feral future exists, we advocate scenario work which seeks to extend the peer community by seriously considering that which had hitherto been unwelcome, politically incorrect, destabilising, and radical, along with that which questions established categories, labels, connotations, roles, sources of legitimacy, and power relations. While it may appear naive to attempt to 'co-opt the enemy' of the established order through such scenario work in order to enhance the quality of inquiry about feral futures, we believe that failing to do so has dangerous consequences in the preservation of 'ignorance of ignorance' [26]. It is in telling such painful futures, and in determining what kind of stories will help to engage feral futures, that Zen is of help.

4. Zen and feral futures

Zen in its essence is the art of seeing into the nature of one's own being (Oxford English Dictionary). Thus an aim of Zen is to help an individual to go beyond ordinary attachments and to come to some sort of Enlightenment. This ideal is shared by all sorts of beliefs and practices, mainly coming from Asia. Zen is unique in its approach; not relying on the gradual development of the enlightened consciousness, but on something else—a sort of 'spiritual shock therapy' or revelation, where the individual lets go of, surrenders, or transcends their comforting but imprisoning beliefs in the structures that maintain their ordinary existence. This may be accomplished with the help of engaging with insoluble paradoxes, like 'hearing the sound of one hand clapping'. Or there may be a personal experience, when the whole world suddenly falls apart and insight is gained. It is as if when Zen students have the carpet pulled out from under them, instead of hitting the floor they float to a newly discovered inner place.

Scenario practitioners are not trained Zen masters; nor is it their role to enforce the necessary Zen discipline on those they serve. But there are strong elements of the Zen approach in scenario practice as envisaged by Pierre Wack, the man credited with having institutionalised scenario practices within Royal Dutch Shell [27]. After all, forcing people to work through a scenario that, as experienced managers consider implausible or threatening, does indeed challenge their common sense. This approach of having what Wack called "the macroscope challenging the microscope"—a vivid description of the possible future context challenging one's established mindset, was derived from Wack's long stays in Ashrams in the East and his involvement with spiritual movements here. With a Zen flavour, Wack considered that scenarios could help people bypass the defences whereby early warnings are rejected or even kept out of consciousness.

Here we explore the incorporation of the insights of Zen in scenario practices in the 'intuitive' Shell tradition of Pierre Wack, to engage with feral futures. First, we must rid ourselves of two possible misconceptions. The first one is that formally, it might seem to be a contradiction to organise a study of the future in terms of a philosophy that advocates being solely attending to the present moment. But that is just one of the things about Zen that connects with the prospective condition that scenarios deploy. In the prospective condition, the future – something to come, something different from the present – is inevitably experienced by participants within the present. The prospective condition is an inherently paradoxical one, and thus very much like Zen.

The second possible misconception to resolve is that writing about Zen is itself a contradiction, for Zen is "above all an experience, non-verbal in character, which is simply inaccessible to the purely literary and scholarly approach" says the Preface of Watts' influential The Way of Zen ([28], p. 12). Watts suggests that while Confucianism concerns itself with the linguistic, ethical, legal and ritual conventions which provide society with its system of communication, Taoism involves an inward liberation from the bounds of conventional patterns of thought and conduct ([28], pp. 30–31). Lao-tzu said of the Tao:

> To its accomplishments it lays no claim.

It loves and nourishes all things,

But does not lord it over them.

The Tao, without doing anything,

Leaves nothing undone (quoted in p. 152)

Taoism [29] involves a not-to-be-defined experiential journey seeking Zen where, like in Zen, words are not of help. "*The masters talk about Zen as little as possible*" (p. 147).

Why is Zen mindfulness relevant to feral futures? Because attending to feral futures means letting go of the labels and distinctions that become attached to both types of futures we are accustomed to dealing with—predictable futures and unpredictable futures, and especially desirable and undesirable prospects. As soon as we make such distinctions our bodies respond, our emotions are engaged, and we are getting ready to welcome or deny. We cannot be comfortable with 'uncomfortable knowledge', and so we cannot manage it skilfully. Labels distinguish this from that in a predictable world; and while in feral futures the distinctions have lost their signification, using them will lead – as we saw above – to the mistakes of erroneously attempting to deploy domesticating approaches to a situation that has stopped being tame. So it is important to let go, and in letting go, invite a form of knowledge – of direct experience – that avoids naming. In Taoist and Zen discipline, it involves attending to the peripheral and the subtle, to that which has been taken for granted (like breath or gravity), while letting go of a priori categories and established definitions. But it does not mean doing nothing. In Zen one lets go, and one acts. Feral futures engaged with a Zen approach are interacted with. They are not simply observed or listened to or felt or smelt, welcomed or feared; they are an-Other with whom to engage – perhaps experimentally, perhaps tentatively, but with an open mind and awareness.

In Western social science this is reminiscent of Karl Weick's invitation for people in situations that have stopped making sense to 'drop their tools' [30]. It refers to a situation he studied in a wildland fire where fire-fighters died because they kept their heavy tools and were handicapped by them in their attempted escape. Some of those that survived had dropped their tools (and in so doing dropped their professional self as fire-fighter). It means that the old category can literally kill you unless you drop it and consider alternative framings and possibilities. We subscribe to Wright's insight that sense-making in feral conditions can be prospective [31], and not only retrospective as Weick has maintained. We understand prospective sensemaking in Zen terms – it is made by retrospecting from possible and imagined futures in which established labels, distinctions, and tools must be dropped, and from that future-in-the-present it opens up what hitherto been unthinkable possibilities for action. In August 12, 2010, <u>the Economist</u> entitled an article "Thinking the unthinkable: Amid drug-war weariness, Felipe Calderón calls for a debate on legalisation". Up to then legalising the evil enemy of the rule of law and its criminal activities had been suppressed as an option. But as the drug war that the police and the military have launched in Mexico under Calderón's presidency fails, the prospective failure and its outcome begins to be read as the possible initiation of a future failed State. This action of dropping the prior framing and imagining an alternative with totally different future conditions that challenges established truths is just what Zen thinking enables. The Zen–inspired alternative way of addressing the situation may produce clumsy solutions [32] instead of silver bullets, but may be more effective in coping with feral futures than any available alternatives.

5. Aesthetics [33] and feral futures

Aesthetics is the part of Western philosophy that deals with the forms of understanding, perception, conception, and experience which we qualify (often after the fact) with adjectives such as 'beautiful', 'ugly', 'elegant', or 'repulsive'. Other cultures have other names and conceptions of what we think is (roughly) the same type of experience [34]. Aesthetic knowledge depends largely on sensing and feeling, on empathy and intuition, and on relating conception to perception. There is growing evidence from cognitive psychology and neurobiology that aesthetic forms of knowing precede other forms of epistemology, and shape how these other forms of knowing operate. This possibility had already been proposed in the early XXth century, before empirical knowledge could substantiate it, by philosophers such as Cassirer and Langer [33].

The aesthetic sensed or felt pattern recognition that is involved in perception, and the forming of ideas, tends to precede the formalisation of these into concepts and their manifestation as words. In mathematics, for example, "*the motivational aesthetic does not merely catch the mathematician's attention, rather it serves the necessary role of framing the very way problems and initial conjectures are identified*" [35] Schlag, who analysed and organized available research on the role of aesthetics in the realm of American law proposed that: "*Law is an aesthetic enterprise. Before the ethical dreams and political ambitions... can even be articulated... aesthetics have already shaped the medium within which those projects... work*" [36]. Analyzing how modernity has come to reflect upon itself, and comparing his views to Beck's and Giddens', Lasch concludes that: "*Well before the post-traditional society of the past two decades, the first instantiation of reflexive modernity was through the aesthetic*" [37].

We feel that those attending to feral futures and who wish to engage them in practice would be well advised to explicitly attend to the aesthetics of epistemology for several reasons. The first one is that aesthetic understanding, as it occurs earlier, buys one time. What one feels about something, what one senses with the biggest organ we have (the skin) is the beginning of what one knows. That sense or feeling provides the earliest facts one can go by. The discovery of extensive neurons in the

gut lends credence to the mindfulness that 'gut feelings' provide insight, if not judgement [38]. Secondly, as Cassirer and Langer suggested – the latter wondering what would philosophy be like if expressed through music instead of language – beauty is shared mostly with the help of presentational symbol systems that do not have the discursive semiotic that dictionaries afford to words (the exception is poetry). As with Zen above, an aesthetic appreciation thus invites us to drop our established labels and to consider what we feel anew, establishing new connections. Beauty is neither in the eye of the beholder, nor in the be-held object but instead joins both when the feeling of the connection resonates with feeling life – or that which is vital [39]. As Gregory Bateson put it, "*aesthetics is the pattern that connects*" [40]. For Penrose "*connecting together different ideas that one had not expected to be related. . . is something that occurs frequently in mathematics and has a special beauty of its own*" [41]. If feral futures are expected to produce ugly outcomes, aesthetics invites new connections that enable alternative perceptions to transcend such categories. The classic example of such aesthetic transformation is in the verse on which narrative of the Ancient Mariner turns, when, cursed by the dead men around him he unselfconsciously blessed the weird creatures in the sea and was thereby released of his Albatross.

While this analysis may appear to be unrealistic, unprofessional, impractical, and (worst of all) 'academic', attending to the aesthetic is gaining ground in many different fields—in addition Schlag's work on how judges in the United States interpret the law, and Penrose's views that aesthetics is at the heart of understanding how mathematicians work aesthetics now also extends to how organizations [42] and people in them behave and appreciate them [43]; to how forests are managed [44]; to how patterns of decision-making at NASA came to be ineffective [45]; to how formulae are evaluated in theoretical physics [46]. In essence the argument is that as aesthetic appreciation is inescapably 'there', it is wise to explicitly attend to it and to the insights it affords—instead of pretending it does not exist. Ignoring its contribution might be expensive.

6. Conclusions—Zen and aesthetic adjustments of scenario planning for feral futures

Looking at the history of futures in the Wack 'intuitive school' tradition of scenario planning, we see that it resonates with the above themes. The legendary scenarios built by Wack involved the price $10 a barrel for oil. Such a price broke all the expectations and rules of the industry, and managers could no more comprehend it than they could hear the sound of one hand clapping. But when, later, this unthinkable contingency actually happened they, unlike their competitors, were prepared because they had imagined the situation earlier, gained a feeling for what it might be like, and developed options they could enact to do well should it unfold.

But for us it is not the preparation itself that is key, even if we recognise its importance. What is specific with scenarios to consider futures becoming feral is the invitation to

(a) really let go of the established epistemology [30] and the implicit power distribution realised in expertise and authority that it manifests, as Foucault analysed [7]—see also Inyatullah [2]; and with this to
(b) create the conceptual space [25] to reconsider the situation anew, attending to the sensed, the felt, the experienced—that which had been peripheral and backgrounded, denied and ignored, belittled and discounted. With this then to
(c) identify and seek and explore and begin to establish new connections, and see patterns; and to
(d) finally opt for those imagined futures whose meta-pattern best connects to those experienced as corresponding to those of the living, the viable, the vivid, the sustainable; deploying the forces of beauty to transform the superficial ugliness of feral futures. The whole process reminds one of Lewin's unfreeze – change refreeze learning cycle, but the form of cognition here is de-rationalised, or at the very least the definition of the rational is reconsidered anew. Putting this cycle of activities into practice need not be a lengthy or expensive affair; our experience has been that much can be accomplished in quite brief sessions.

In our March 2010 Singapore lecture [15] we called this approach 'meta-rational', and contrasted it with the extension of rationality that the futures approach of domesticated consists of. We summarised both positions, which we said we expected would continue to be explored side by side, as per figure one.

The two approaches are not contradictory; for example, reference projections or trend extrapolations [4] may show that a feral situation is developing.

The practical implications of scenario work read with the above (a–d) four steps is not so much that practitioners will have better responses prepared earlier for any particular feral contingency that may arise. Instead, it is that their sensitivities will become far more liberated from the attachments of judgements, more ready to question and even criticise established frames (including one's own), and so be better placed to identify early signs of contingencies that would otherwise be too frightening or threatening to contemplate, or of which they may even remain conceptually incapable.

We can speculate that if a scenario approach attends to and seeks the uncomfortable and the ignored, it might better enable people to better live with futures that can become feral. We believe people could quite easily come to appreciate a deeper purpose of the approach (we have tried it out in workshops with participants). We will have seen that an important aspect that prevents us from coping adequately with feral contingencies as they arise is the vanity of our attachments to pre-existing, tamed realities – and even more deeply, of the epistemological edifices and the implicit power relations we have constructed in this domestication. These will tend to become institutionalised, as the domestication project succeeds and becomes locked in for decades at a time. Such locked-in social structures, which may include whole nations or even

civilisations, can become rigid, and ultimately brittle in the face of challenges, external or internal. We saw this in the case of the State socialism of the Soviet Union [48], and we must now be attentive to the possibility that we are now witnessing it in the case of its polar opposite, within the unregulated capitalism driven since WW2 by the USA.

There are many paths to obtain or at least approximate to non-attachment, perhaps even many more than there are distinct religious and philosophical paths. The Zen and aesthetic approaches we have explored above in Sections 3 and 4 might be more effective in some cultural and social contexts than others, and they could be better adapted to help with feral futures than are the comforts of most of what conventional religions have to offer. With that understanding, we see that 'feral' is itself a judgement, related more to our illusions about a tamed and domesticated world we can control and manage than to the realities of that world. When predictability fails we become surprised and upset that our assumption is betrayed, and we blame the external world rather than our inner world, calling it 'feral'. With Zen scenario practice, we should move away from our attachment even to that.

Addressing feral futures with Zen and aesthetics may furthermore be one cure for the disease caused by the modern fantasy of total control. Recognising something as 'feral' may be a first antidote to arrogance. In the perspective of a half-millennium of expansion and then a century of troubles, we can see that our civilization has given rise to an unsustainable form of living. From this perspective, we ourselves and our civilization is what makes the prospect of our futures feral—not a very comfortable or sustainable prospect. Zen and aesthetic reperception with the help of prospective sense-making in the safe transitional space of the future may help us begin redressing this unsustainability.

We cannot appreciate the power of "feral futures" if we persist in the dominant academic delusion of imagining people to be nothing but "desiccated calculating machines" [49]. This approach anaesthetizes our perception—literally killing off the capacity for aesthetic understanding, and discounting all epistemology that cannot be formalized, labelled, made explicit, and ideally calculable, as useless. Zen aesthetic scenarios attempt to redress this deformity of our experience.

When we stress the aesthetic element, we are placing ourselves outside the dominant consensus of Western epistemology. This invites us to reacquaint ourselves with deeper insights into unspoken and indeed unselfconscious assumptions—the very ones we use to make important decisions such as whom to marry or whether we ought to move into a new house. With this Zen and aesthetic perspective, enabled by the safety of the conceptual future, we may better see that "*many of the numbers and narratives supporting decisions are but 'transitional objects' that help [managers] to address the anxiety that taking responsibility entails*" [32]. Put differently, we suggest that it is better for meta-rationality (in Fig. 1) to frame extended rationality, and not the other way around, when future might become feral and not tame. The two are different but not incompatible. We argue that there is a complementarity between the aesthetic or intuitive sensibility and the ratiocinative sensibility. Neither can stand on its own, and just as we abandon the assumption that formal reason is self-sufficient and complete, we recognize that aesthetic knowledge is in a dialectical interaction with the other sort. Also, it would be an illusion as serious as the dominant one, to imagine that aesthetic knowledge is independent of context and circumstances. If nothing else, the history of fine art, with its succession of dominant styles, is a reminder that, at least as a social possession, aesthetic judgement is strongly conditioned by context and fashion. Yet the tastes involved, and their changes do not negate the universality of aesthetic appreciation for minds – perhaps even extending to non-human minds as well.

In these terms, in the context of this paper we can understand the Zen experience as one which transforms the framework of aesthetic perception by the person, and that this can serve to identify feral futures, perhaps even prior to their unfolding. The function of Zen in transforming and reforming the aesthetic scenarios framework is better appreciated when we realize that this framework itself has conflicted and contradictory aspects and is contingent, tentative, in constant revision and always incomplete. It is felt and appreciated differently by different people and by the same person in different settings or

two ways forward
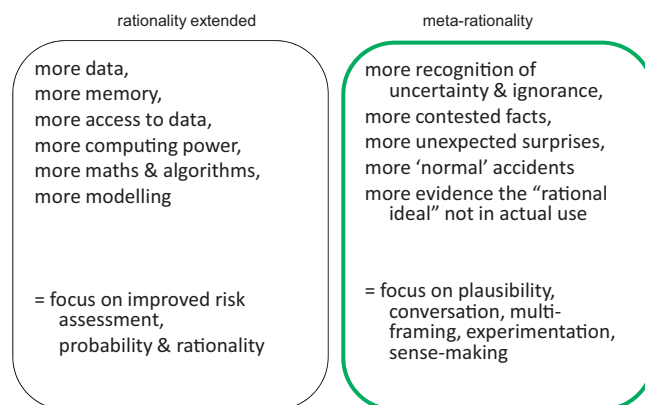
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Fig. 1. Two ways forward: rationality extended and meta-rational.

moods. Aesthetics may in this respect appears to be more fundamental than ethics, but the judgments to which it gives rise and the perceptions it allows us to attend to can be no less conflicted and troubling.

Such considerations lead us to the core question: what are the aesthetics of feral futures? By ordinary criteria feral futures will, if attended to, be initially experienced – felt like, sensed, appreciated – as ugly, repulsive, threatening, and/or nasty in relation to the patterns of the established order. But given the reality of such responses, we also know through Zen that an attachment to these first experiences will inhibit our ability to engage creatively with such futures. Every crisis is a challenge as well as a threat; Zen enables us to see both of these complementary aspects, and aesthetics enables us to imagine them, feel them, and in so doing begin to engage with them.

In this essay we have articulated and defined a new type of future, feral futures, characterized by the realization of the conversion of domesticated risks to a new man-made state which differs from both the tame and the wild. We have explored how difficult it is to engage these feral futures productively within the established approaches, and we have proposed adapting scenario thinking and practice to explicitly include Zen and aesthetics. Together they offer a promising approach to engage with feral futures. We hope that this essay will stimulate further work for a better understanding both of feral futures and of our capacities to engage with them.

Acknowledgements

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