Conscious Democracy, beyond Natural Democracy

FOUNDATIONAL PRINCIPLES FOR THE ORGANISATION OF HUMAN SOCIETY

UNDERSTANDING THE ROLE OF CHOICE IN THE FORMULATION OF CONSCIOUS DEMOCRACY IN THE 21ST-CENTURY

Standards of LIFE

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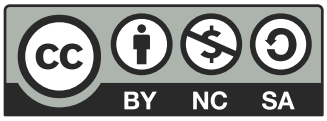
If you can keep your heart when all about you are losing theirs,
If you can push impulse further out
And hold longer to consideration.
If you can see yourself in me and me in you,
and hold your honour while still honouring me.
If you can give me the same promise that I make to you,
And still keep your ambitions for the both of us.
Then yours is the world and everything that's in it,
And, what is more, my fellow, you will be a 21st century human!



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Short Summary

This is a very important time, a time that is going to require a big solutions to the big problems we face. It is imperative that we develop a clear understanding of the nature of our species, and the driving forces that affect our behaviour, if we are to develop the solutions that will actually solve the problems we face.

Should happiness, and the pursuit thereof, be the driving force behind societies? Should economics trump social egalitarianism? Is capitalism a social organising force? Is communism naturally aligned with the nature of humanity, or an idealistic masspiration? Did malevolent dictatorship lead to the 20th century's genocides, or is benevolent dictatorship the answer to our problems? These are the questions that we can and must address[1], because until we do we will not move past the "how", to the the "what" of real action.

The human species is certainly capable of delivering the solutions that we need, but before we do so, we will have to have a much more commonly held and clearly understood picture of our real natures. This paper seeks to clarify the foundations of human behaviour, and leverage that understanding to inform the structure of a large-scale human social organisation.

The human species is an advanced and complex species, still operating within the framework of evolution. Adaptation, random mutation and the survival of the fittest are as in effect today as they ever were. We are a product of these forces and the constraints of Nature, and we remain subjects to both in the determination of our future. Our next adaptation must be to our own success, and to the pressures on our own survival that we have created for ourselves.

We are unarguably a group species, we are deeply committed to specialisation and heavily dependent on the transmission of knowledge. Around half of the requirements for functional membership of our modern societies must be acquired postnatally by each individual, and requires the use of complex, conceptual rationalisation abilities. Only those human societies that recognise the depth of our pre-commitment to specialisation and learning will survive in a modern format, and the most successful societies will be those that consciously develop their structures to maximise the benefits and minimise the weaknesses. We have long since passed the point of no return: there will either be 9+ billion humans, or there will be less than 1 billion humans. What determines which of those outcomes becomes reality is the extent to which we adapt now to our own success, and get deliberately ahead of our requirements and our impact on the Nature that hosts us.

In combination with the paper on Sustainable Economics, these two documents form the underlying foundations on which the policies of LIFE are built. This paper is specifically focussed on the fundamental issue of explaining human behaviour, and how we must align our organising principles with that. Details for much of the implementation processes are available at www.standardsoflife.org and we encourage you to visit the site for more information after reading this paper. Thank you.

[1] Spoiler alert: see last page for the answers.

How We Got Here

We are Specially Evolved

We humans are an advanced species at the forefront of evolutionary development on this planet. If we look at what distinguishes us from our fellow species we can determine certain key characteristics that describe the adaptations we made to get to where we are now:

- We are selective choosers. In most situations, we make a selection from a range of possible actions. We have a huge store of possible behaviours, some of which we inherited in our genes and some of which we learned after we were born.
- We are conceptual cogitators. We have the ability to attribute the same significance to a conclusion that we reach through logic, as we attribute to the physical evidence resulting from our physical actions. This allows us to take actions based on what we think is going to happen, in addition to what we know is going to happen.
- We are individually quite weak and quite specialised, and as a species our fitness for survival derives from large groups with high degrees of specialisation. In turn, we have become individually dependent on our membership of a group for survival.
- The size of our groups has expanded in proportion to our ability to maintain empathic connection to most other group members. The larger the group, the wider range of specialisations we can accommodate; and the wider the range of specialisations, the greater the number of situations the whole group can adapt to.

The purpose of this paper is to explore the adaptations that we have made to arrive at where we are, and through an understanding of those adaptations, to propose the most naturally conforming system for the organisation of large-scale human societies. Through this process of deconstructing our behaviour, we expect to be able to arrive at some clarity around the foundations of human nature, and to establish the credibility or otherwise of the various world-views in circulation today, the competition between which is clouding our ability to make the big decisions we face at this time, and move forward to action.

What follows in this section is an exploration of the genesis of human nature, as an evolutionary product of all life on this planet.

Behaviour

Because change is a constant, adaptation and random mutation are the building blocks of survival. Since the birth of life, the ability of a species to “behave” has been the key to adaptation. Even the most basic lifeforms

exhibit “behaviour”, which is the ability to take an action based on a sensory input. Behaviour is a function of the organisation of the nervous system, and the range of behaviours is dependent on having a nervous systems capable of storing different behavioural responses to different sensory inputs.

The advantage of having a large range of behaviours is that situations can be more finely calibrated, and with the co-development of more finely tuned sensory functions, even more granular behaviours can be usefully deployed. This co-growth of senses and behaviours led to the advantage of a nodule on the nervous system to store large quantities of behaviours, co-located with highly attenuated sensory decoders, hence the evolution of the “brain”.

Origins of the Reward System

To aid in the selection of successful behaviours in choosing animals, the addition of a reward system has proved to be a vital component of complex neural systems. Basic reward systems keep a species’ attention focussed on survivally important activities, like nutrition and reproduction, so that those behaviours do not get lost in the plethora of behavioural choices. As such the advantage of a reward system is most accurately seen as a focussing mechanism, and as part of a mitigation strategy for the risks of having any choice [In insects, dopamine is necessary to form aversive memories].

For species that have not evolved to use “selective choice” (see below), their reward system is directly activated by specific activities, as defined by the construction of their nervous system. Developments in their behaviour set, and changes to the favouring of specific behaviours, are dependent on random mutations in their nervous system. which, if successful, are conveyed genetically to the next generation. These species are, therefore, limited in their rate of adaptation to their reproductive spans. In this paper we will refer to species that are dependent on pre-programmed genetics to select their behaviours as “instinctual” species.

Selective Choice

The Birth of Choice

An environmental biologist will tell you that any behaviour involves choice, because there is always the option to not behave in any way in response to a stimulus; and therefore the selection of any behaviour is necessarily a choice exercised. Very well then, let’s talk about “selective choice”: by *selective* choice we mean the circumstance in which a given sensory input correlates to multiple possible and selectable actions, in addition to the non-action option.

The evolution of the brain as central storage for available behaviours, and the advantage gained from more granularly refined behaviours, inevitably results in a proliferation of options. The greater the number of available options, the closer the species approaches to the point at which multiple behaviour options are available for a given sensory input: this point marks the birth of truly selective choice.

Selective choice is necessarily only applicable when multiple possible behaviours are *seemingly* equally beneficial, or equally indeterminate. The most evolutionarily significant events that fit into this category are **new** events, circumstances that the species has not encountered before, the material manifestation of change, that ever-present, never-ceasing constant, without which evolution would be unnecessary. For an instinctual species, the selection of one option over another in a new situation can only be a gamble, and it will be a gamble for survival. The same is true for a selectively choosing species, *unless* they can accurately attribute qualitative values to the options available.

So species that have developed the capacity to make selective choices, and humans are one of them, *must* also develop a correlated capacity for qualitative analysis: extrapolating from the moment's given sensory inputs to reach accurate attributions of success in the abstract.

The Disadvantages of Choice

The primary differentiator in whether the use of selective choice by a species is advantageous or not, is whether the maximum potential for better choices is extracted, without straying into realms of dysfunctional confusion and inaction.

If a species does not have the abilities or skills necessary to improve the odds of making a qualitatively better decision, in circumstances that present little or no material evidence as guidance, a proliferation of choices will present *more risk than advantage*, because the chances of randomly selecting the right option degrade with each additional choice added. The more sophisticated the choice, the lower the odds are that a gamble will be successful. In a choice between two options, the absolute odds of a gamble being correct are 1:3 (because it is possible that doing nothing, the ever present alternative, would have been the most advantageous option). Here is a table showing the odds of making a good selection using pure chance:

Success Rate of Pure Chance

Number of available options	Odds (with 0 option)
2	33%
3	25%
4	20%
5	17%

The Advantage of Choice

But if a species can develop abilities that move the needle away from "pure chance" towards "best guess", they can make selective choice a real advantage. The table below shows that if a qualitative weighting of 40% can be accurately attributed to one option in a set of three, then the selection will yield better odds than a random selection.

The more granular the options, the more options there are, the greater the benefit derived from qualitative scoring. The two are bound together: there's no point having lots of options, if you can't impute qualitative

scores to them. And imputing qualitative values means using extrapolated factors in an abstract construct, employing data that is not present in the current sensory dataset – this is not work for the faint of brain!

The following table presents the effect of being able to add a qualitative weighting to one option in a set of options. The first two columns show the success rate of pure chance, excluding and including the non-action option. What is interesting to note is how rapidly the ability to attribute even a minority weighting to an option improves the success rate compared to pure chance. Even just a "hunch" that one option is "better" always improves the odds, and at relatively low values in higher option scenarios, the odds get even better than pure chance alone (shaded green).

Options	Chance	Chance + 0	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
1	100%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%	100%
2	50%	33%	37%	40%	43%	47%	50%	53%	57%	60%	63%	67%
3	33%	25%	28%	30%	33%	35%	38%	40%	43%	45%	48%	50%
4	25%	20%	22%	24%	26%	28%	30%	32%	34%	36%	38%	40%
5	20%	17%	18%	20%	22%	23%	25%	27%	28%	30%	32%	33%
6	17%	14%	16%	17%	19%	20%	21%	23%	24%	26%	27%	29%
7	14%	13%	14%	15%	16%	18%	19%	20%	21%	23%	24%	25%
8	13%	11%	12%	13%	14%	16%	17%	18%	19%	20%	21%	22%
9	11%	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
10	10%	9%	10%	11%	12%	13%	14%	15%	15%	16%	17%	18%

Key: Better than 'Chance + 0' | Better than 'Chance', w/o 0

So if being able to make selective choices is such an advantageous trait, why don't more species exhibit it? The answer lies in the qualification that gives selective choice its advantage: it has to be mated with a complex intellectual capacity. And a complex intellect requires a large brain, and brains consume huge amounts of resources, so the species has to be relatively large and to have continuous access to the necessary nutrition.

In addition to the burdens of supporting a complex nervous system with a large brain, a choosing species must also be effective in mitigating the risks inherent in choice, so that they can actually achieve accurate qualitative weighting. Having made the commitment to go down the road of choosing, we can fairly expect to see that choosing species have developed mitigating strategies that work, and that they have successfully bound those strategies into their foundational behaviour sets.

The Risks of Choice

To better understand the abilities that choosing species have developed in order to make exercising selective choice an advantage, let's first look at what the risks are.

Any choice involves three primary risks:

1. Misperception. The circumstance is misperceived, and therefore any selected behaviour is inappropriate to the real circumstance and consequently unsuccessful. Both instinctual and choosing species are subject to this risk.

2. Misjudgement. An inability to make qualitative distinctions between options, using something more than the immediate sensory input available. The wrong option is randomly selected because there was no discernible distinction between the options.

3. Stupefaction. No choice is made because the activity of selecting between options gets stuck in the selection process, despite there being an overriding and urgent need for a selection to be made ("deer in the headlights"). This is analogous to non-behaviour in an instinctual species, however in a choosing species this is factor that can be mitigated.

Each of these risks are applicable to both instinctual and choosing species, what is different is the mitigation strategies available to them. Instinctual species must always take the simple route, and only adapt in low-complexity ways that maintain their success odds when faced with new or unknown situations. Choosing species are more likely to double-down on the bet they have already made to make complexity work for them, and seek ways to leverage mitigating strategies across their entire risk portfolio.

Misperception in an instinctual species can be addressed by the development of sensory faculty and enhanced communication, but the species will fail if these complicate the decision by introducing more options, because they become subject to the reduced success rates attendant with complexity (see table of odds above).

Instinctual species do not mitigate misjudgement, they just live or die by it. Choosing species develop complex systems to try and attribute weightings to their options so they can maximise their chance of getting it right.

The risk of non-action is not really a "risk" to an instinctual species, it simply an ever-present, default option that is selected when nothing else in their behaviour set is activated. Its effect is to reduce the odds of a successful selection in every new, or 'pure chance', situation – the simpler they can keep their behaviour set, the less likely it is that a random selection will be unsuccessful. Choosing species have introduced impulsive, arational, tendencies to mitigate this risk.

In examining further the impact of mitigation strategies, we will concentrate on the strategies available to choosing species, because the primary focus of this paper is an understanding of the building blocks of human behaviour. Any new situation presents a gateway for all species, and how they address the challenge determines their success or failure. Life on our planet today demonstrates that there are many strategies for adaptation, and that there is no final conclusion as to the most successful one; we are all still in play and subject to the forces of change and competition.

Risk Mitigation Strategies

Without mitigation strategies. the exercise of selective choice provides no advantage over non-choosing, instinctual behaviour; and it gets worse the greater the extent to which choice is exercised as a proportion of the total behaviour set. If a species exercises selective choice in the majority of its behaviours, and does so with sophisticated and complex options, it *cannot* succeed without equally sophisticated and complex risk mitigation strategies – the two are bound together in a mutually reinforcing spiral.

The behaviour of a complex species is determined as much by the strategies they adopt to gain advantage from the use of selective choice, as it is by the specific environment they live in. To understand the behaviour of a complex species you must understand their risk mitigation strategies, and the path they followed to develop those strategies. Understanding those factors will tell you as much about what the species in incapable of, as it will tell you about their capacities and strengths.

Examination of mitigation strategies, and observation of the natural world, demonstrates that there is a fundamental divide between species: between those that have adopted solo or individualistic social structures, and species that have adopted group social structures. As we review the primary strategies available to mitigate each of the major risks of choice, it becomes apparent that this divide between individualistic and group organisation is as fundamental an evolutionary gateway as the divide between instinctual and choosing species was before it. We will review solo v group orientations after a general review of risk mitigation strategies.

Perception Enhancement

Accurate perception of a situation is key to making a good choice, and there are two primary strategies for improving the accuracy of perception:

- Improve the quality of the sensory data, using better receptors or more accurate analysis of the input, or both. Examples of enhanced prey or predator detection senses abound in the natural world because there is always advantage, and often little downside, to their development.
- Pooling multiple perceptions to arrive at a mutual perception that is more accurate than any single perception. To do this the species must have “group character” (see below). This strategy can be further enhanced with larger groups, especially if there are differentiated sensory and analytical capabilities within the group population.

So in a choosing species we can expect to see strong focus on the development of sensory capabilities, especially in more individualistically organised species. In more group orientated species we can expect to see as much emphasis on the development of sophisticated communication capabilities as on sensory development.

Qualitative Imputation

Choosing species must find a way to impute quality scores, or likelihood rankings, on the options they choose from. How can you improve the quality of a choice, beyond receiving and analysing the sensory inputs available at the time that the choice needs to be made? The answer to this question goes to the heart of the matter for choosing species!

The answer is: you can bring experience of previous choices to bear.

While using experience to help judge different options sounds simple at first blush, let's look at all the functions and capabilities that this supposedly simple activity requires: accurate recollection of previous events; analysis of how similar the current and former situations are; recollection of what choices were made, and what the results were; analysis of the previous analysis, based on the success or otherwise of the selection previously. All these capabilities need to be present to make qualitative imputation possible. If a species has these faculties, it is possible for it to impute qualitative values to the choices available in what is otherwise a completely new situation – i.e. in the face of change.

To do all of these things you need fantastically good memory, preferably a memory system that correlates all of the available sensory inputs into a single "event", and then attaches a qualitative value to that memory that signifies the success or failure of the choices made (a "feeling" about an event). Furthermore, you can do even better if you're able to conceptualise a situation and project possible outcomes, as well as determine the extent of the similarities. It's difficult to imagine the incredible complexity of such a system, let alone the string of evolutionary events and random mutations that it would take to arrive at such a facility... but here we are!

Learning Animals

Qualitative imputation requires learning ability. There's no point learning if you're not going to choose, so there's no value to an instinctual species developing all of the neural complexity and infrastructure necessary to support learning. And there's no point choosing if you're not going to learn, so developing the neural complexity and infrastructure necessary to support learning is not really optional for a choosing species.

Learning is a combination of various neural modules, linked together so that they can function in coordination. The primary components of a learning system are:

- Memory. The ability to record, store and recall "events". An event is an amalgam of all of the different sensory data relevant to that time.
- Malleable reward system. The ability to attribute a memory with a qualitative value, such that recollection of the memory includes positive or negative outcome information ("feelings"). An advanced version of a learning system has the ability to "re-learn", that is to say the ability to change the qualitative value associated with a existing memory based on new information.

Basic Learning

Basic learning can be fairly simply implemented, at relatively low investment levels, and it will provide sufficient risk mitigation to turn choosing into an adaptive advantage. In the basic version only significant events are stored and are coded with a quality score that will not change. This requires less memory capacity and no conceptual ability, it does require an additional pathway to the reward system from the memory system.

This basic system allows the species to recall previous, similar events and use the correlated quality score to weight their present-time options. The process is fairly 'mechanical', and does not involve extrapolation or projection of possible outcomes. It brings experience to bear, but not intelligence. It is helpful in new situations, but obviously constrained by the limit of previous experiences that can be directly correlated to the current circumstances using the available sensory data.

Basic learning does require the ability to perform comparative analysis, the ability to hold two similar events next to each other and make an assessment as to their qualitative similarities and differences. In its most basic form this requires only the comparison of current sensory data with the sensory data stored in a memorised event. This ability to compare is a building block for more advanced learning capabilities, and serves to suggest an evolutionary passageway from basic to advanced learning.

Advanced Learning

In an intelligent, choosing species a much bigger investment in neural complexity is made to gain advantage from choice. Always the objective is to ascribe a higher quality (more accurate) weighting to each of the options in a new situation.

To gain advantage beyond basic experiential comparison it is necessary to develop tools and processes that allow weightings to be attributed based on extrapolation (multi-step projection, abstract comparative analysis and correlated sensory substitutions) to derive measures such as likelihood, consequence and cost. Advanced learning requires the development of these facilities:

- Conceptualisation: the ability to project a series of events and their consequences entirely in the abstract, without manifestation.
- Abstract comparative analysis: the ability to hold two similar concepts next to each other and make an assessment as to their qualitative differences, even though the events being compared may never have actually occurred and are simply the result of conceptualised projections in the abstract.
- Multi-factor weighting: to be able to weight the factors of a choice, and then assess a compound weighting for the choice as an aggregate of all the factors.
- Re-learning: the ability to modify the quality score of an existing memory.

These functions are prodigiously more complex than simple experiential learning, and require very significantly more complex and more resource hungry neural systems. Such an investment, and the fragility

introduced by such a dependency on resource availability, are both significant barriers to adoption. But those barriers were breached, and there are species alive today that demonstrate the advantages to be gained from the development, primarily the advanced mammals like humans.

Superior Reward Systems

Advanced learning species, such as humans, have developed sophisticated neural control over the activation of their reward systems. Reward systems have existed since the birth of life and are integrated into our physiology in very fundamental ways, the development of risk mitigation came later in the evolutionary timeline and is simply another activator connected to the older, pre-existing reward system. In humans this takes for form of a ganglia of nerves from the primary dopamine receptor site going up into the frontal lobes [Mesocortical pathway]; activation through these nerves opens the receptor sites and exposes more and newer receptors to the receipt of dopamine, enhancing the reward experience even more than can be achieved just using the older receptor activators [Nigrostriatal pathway]. The primary purpose of these connections is to enable the direction of the actions of the individual, based on the results generated by the complex risk mitigation systems.

In order to be successful, choosing animals that have complex mitigation systems still have to be able to act quickly. To provide this service effectively it seems evident that mind has been split into a conscious portion that is the animal's action-orientated, present-time reality, and an subconscious portion that provides the back-end services of memory and calculation. The superior reward system is how the animal ensures that its back-end systems are able to exert control over the self-aware, conscious mind.

The precedent, and origin design, for the separation of powers evident in the different conscious and subconscious minds is found in the much older motor control system. The vast majority of the motor control needed to sustain the life of an animal is performed autonomically, or unconsciously. Breathing, blood pumping and digestion are not consciously directed, they are managed and controlled in the background by the autonomic nervous system, leaving the conscious mind to focus on external sensory data processing.

Why is a conscious mind necessary at all? It's all about focus and efficiency. To enable the subconscious mind operate at very high frequency, churning through huge quantities of options and consequences, it works purely in the abstract, without pausing to qualify distinctions between event memories and conceptual projections. But the conclusions the subconscious mind reaches are still subject to actual implementation in the real, physical world; and that implementation is what the conscious mind does. The process goes something like this:

1. The subconscious assesses the situation and formulates a strategy, weighing all the options to determine the most likely most successful choice.
2. The plan is transmitted to the conscious mind as a set of actions to be performed.
3. The conscious mind performs the actions, contextualising the actions within the framework of the physical environment.

4. Successful completion of the steps is consciously experienced as “happiness”: which is the activation of the neurochemical reward system using the superior pathways established from the subconscious mind (like doggie treats!).

5. Non-completion or unsuccessful completion of the steps does not activate the reward system, and the individual experiences *un*happiness, a state without rewards.

The competition between the autonomic nervous system, the subconscious mind and the conscious mind for control of the reward system is the foundation of dysfunctional behaviour in choosing species. For instance, a functional conscious mind has the ability to discard instructions that are unsuccessful after an appropriate period of “perseverance”, and allow a new set of instructions to arrive from the subconscious mind. A dysfunctional conscious mind continues trying to implement the original instruction set and gets stuck in “terminal obstinance”, or what Albert Einstein called “insanity”.

Impulsivity

The risk of stupefaction is in addition to the ever-present option that doing nothing could be the most successful option – to a choosing species the option not to do anything is simply one of the options under consideration. The real risk to a choosing species is that they get stuck in the deliberation of their options, that their faculties developed to improve their judgement do not produce a result within the timeframe that the situation demands. One example is the concept of being “frozen in fear”, in this case the decision making process becomes hostage to the computation of qualitative values.

Impulsiveness, a tendency to make a choice without regard to the merit of the option selected (arational), is the primary mitigating strategy for stupefaction. The conscious mind takes control and initiates action, but does so without instructions from is subconscious partner. Used successfully, impulsivity is only activated when necessary, otherwise it negates all of the investment in building a sophisticated qualitative imputation system. Ideally, the species has some way of assessing the urgency of the situation, and using considered judgement for as long as possible before switching to impulsiveness, at the last moment, if a quality-based choice has not been made.

There are three characteristics attendant with impulsiveness that are worth noting at this juncture:

1. Impulsivity is always an option. If it were not present it could not fulfil its mitigating role. It is only ever its activation that is variable, not its opportunity. Were this not so, choosing species would be unsuccessfully lost in cogitation an unsuccessfully large amount of the time.

2. Impulsiveness is necessarily an override system, its effectiveness requires that it is able to cut through the judgement process and take control of the command system. Along with the essentially arational nature of the mechanism, impulsivity is a strong force that once deployed becomes dominant in the immediacy of the moment precluding a return to rational judgement until the emergency has passed.

3. In order for impulsivity to take its appropriate place in the hierarchy of options, it activates the reward system when deployed, otherwise its arising will not be sufficiently effective.

The combination of these attendant characteristics of impulsivity make it *seem* decisive, effective and rewarding; when, in fact, its rightful designation is as a life jacket for the failure of the judgement process. Over the long run, species that over employ impulsivity will make poorer decisions than those that reserve it for emergencies, but the species that are overly impulsive will *feel* like they are doing the right thing, over the short run.

Complexity Range

Observationally and theoretically it seems that any individual member of a species has a range of complexity within which they can bring their judgement strategies to bear, and outside of that range they are relatively strategy naked. At the limits of their complexity range evolutionary forces compel the existence of a strategy of some kind to prevail. It seems likely that above the upper limit will see the deployment of impulsivity, as it is at the upper limit (lots of options) that judgement becomes most complex to use.

Most species are not sufficiently successful to allow the lower limit of their range to rise above the baseline at all, and this may limit the maximum complexity that the species can successfully process. Species that are sufficiently successful or lucky to be resource abundant, and group species that leverage specialisation (see below), may raise the lower limit of their complexity range to advantage themselves through a correlated increase in their maximum limit, and this suggests that below their minimum they must be either impulsive (arational) or docile (abstinent).

Group Character

Turning our attention to the differences between choosing species that have solitary orientations and those that have group orientations, we can observe that the nature of their risk mitigation strategies is very different, even though the principle aims of the strategies remains the same.

The Great Divide

This table summarises the differences between strategies available to solitary and group species:

Species Type	Misperception risk	Misjudgement risk	Stupefaction risk
Solo	Focussed development of specific sensory faculties, determined as those having the most impact on basic survival requirements.	Learning, constrained to what a single member can appreciate and retain.	Impulsivity distributed on a norm (subject to random variations).
Group	Development of communication skills that allow the consolidation of perceptions, leveraging the range of sensory & cognitive specialisations (successful variations) tolerated within the group.	Learning, diversified amongst specialisations allowing for the transfer of more knowledge than a single member could retain.	Impulsivity distributed over a scale, varying across the group population. Generalised deference to specialists (docility), is required to allow the benefits of specialisation to be delivered to the group.

Group orientated species focus on the development of skills and abilities that may not advantageous for the individual member in isolation, but are advantageous for the group as a whole. This leads to group members becoming dependent on their group membership for their evolutionary success, even for their individual survival.

Solitary species focus on the development of skills and abilities that accredit each individual member (i.e. all members) with enhanced evolutionary success. While this strategy is less fragile in the singular, it is more fragile in a competitive scenario – and competition is the spice of evolution!

Competitive Advantage

Those species that are fundamentally individualistic and those that are group orientated have both developed mitigating strategies that allow them to leverage the evolutionary advantage of selective choice for their own survival. In the context of purely linear evolutionary hierarchy, where the species occupies a space in the food chain in solitude, without competitive peers, there is no reason to differentiate their relative success.

The differences between the two approaches become significant in a competitive conflict between species of the different types. In those cases the advantages of the group species' mitigation strategies are so

significantly greater than those of the solo species, that the group species will inevitably dominate. And the more successful any species is, the more often it will become competitive for resources with other species, so competition is a certain eventuality.

Large Group Advantages

In the case of a conflict between two group orientated species, it will be the depth and sophistication of their mitigation strategies that determines which is the more successful. Large groups with high degrees of tolerance and empathy that allow the group to maintain cohesion even at very large scale, can support a broader set of specialisations and therefore survive a wider range of situations both foreseen and unforeseen.

Specialisation

Specialisation (the development of unique abilities by individuals and subsets of the group population) is only functional within a species if the species is group orientated. In a solitary species random genetic mutations occur, but they only persist if they are generally useful for the success of normative individuals. In a group, random mutations can arise and be supported within the population of the group, without becoming a characteristic of all group members. In fact, one of the primary evolutionary advantages of group orientation is the ability to support and leverage the diverse capabilities of individual members within the group; so long as the group maintains overall cohesion, or "group character".

The advantage that specialisation conveys on a group is the ability to successfully confront new and different situations as they arise on the winds of change. Change is always happening and the future is uncertain, so the wider the range of capabilities that the group can support, the more likely the whole group will be able to address unknown future challenges.

Physical specialisation

The most obvious specialisations are of the unique physical or sensory capabilities of different individuals. The larger the group the more random mutations will occur within the group, and the wider the range of physical capabilities that will exist.

Aptitude specialisation

In a complex choosing species, a range of specialised aptitudes provides advantage. The ability of different members to be able to solve different problems better or faster than others, benefits the whole group, so long as the group as a whole is prepared to accept the conclusions of these specialists. This brings us to the important matter of docility (which we discuss further in this section below), because without a vein of docility running through a group population the advantage of the group's specialists is lost. If a member with a special aptitude is able to solve a problem better than the majority of the rest of the population, then the population must be ready to accept the specialists' authority in that situation, and be prepared to engage in action aligned with the specialist's conclusions. Given what we understand about the rise of choice, and the

mitigation strategies necessary to negate the risks of choice, members of a group species need an additional modification to their rational systems that allows their conscious mind to accept instructions that essentially originate in the subconscious mind of another group member. This goes some way to explaining why it seems to be true that much of the actual information communicated between two members of an advanced learning species is non-lingual; there is likely a language of the subconscious that is involved in the negotiation of docility and specialised expertise.

Complexity range specialisation

Different levels of inclination to impulsivity are beneficial to a group because it provides a "best of both worlds" option for the group as a whole. If some group members switch to impulse earlier, the remainder can observe the results, and if successful join them; or if unsuccessful, stay with considered deliberation a while longer. In fact with natural variations through random mutation in the population's propensity for both docility and impulsivity, a full range of behaviours will likely be practiced in an emergency, and the likelihood that one portion of the population will be successful is increased.

The specialisations of ability, aptitude and inclination that occur with the membership of a group give the group a large advantage in both confronting new situations and in competition with other species, even between groups within a species. This is the history of homo sapiens.

Docility Distribution

Specialisation is dependent on the practice of docility in the majority of the population, the majority of the time. This paradox is accentuated by the corollary requisite that specialists must lead in their area of speciality. This balance between the widespread docility necessary in the group for specialists to add value, and the assertiveness needed by the specialists themselves for groups to benefit from their communal investment in specialisation, remains an active area of evolutionary experimentation. Many of today's human societies can be accurately characterised by where they sit on this docility distribution curve.

Excessive Docility

Docility is a form of abstention, as it displaces the individual's use of their own rational judgement. This represents a risk to the individual, but more importantly it represents a real risk to the entire group if it becomes too widespread and established. Excessive docility presents the following dangers for large groups:

1. It restrains the use of judgement in the majority, the majority of the time. This has the potential to lower the whole group's effective use of judgement.
2. If specialists do not step up to the plate in their areas of expertise, the quality of the entire group's judgement falls very quickly, because then no one is using their judgement.
3. In the absence of effective judgement, the risk mitigation systems will default to impulsivity more quickly in an emergency, and the entire group can be led off into a wilderness of arational decision

making, enabled by generalised docility and the abdication of the group's specialists. (see '20th Century Failures' below)

Constraints on Size

While larger groups offer advantages, there are limits to the size of a functional group. In order for a group to gain advantage from its specialisations it must practice these key behaviours:

- Cohesion through empathic connection, so that the variations in the group's members attributes does not fragment the group. This requires that group members are able to establish empathic connection not only with others in the group that are very similar, but also to tolerate members who are quite different.
- Communications skills that transcend specialisations and allow the group to keep "inside the loop" on intentions and directions that are vital for group coherence.
- With specialisation, the group's ability to transmit knowledge becomes more important. If the group can successfully educate inter-generationally, they can maintain the quality of their specialists' contributions at an elevated level, and carry more knowledge from one generation to the next than could be held or passed on by any single member. This allows the group to carry an information load many times greater than the capacity of any individual within the group.
- The skills to build and support the infrastructure needed by the group size. As we can see in today's billion member human civilisations, such large groups require highly sophisticated physical, social and communications infrastructure to remain functional and cohesive. The larger the group the more sophisticated their infrastructure needs to be, and it is necessarily dependent on the co-development of the other attributes necessary to support large groups, such as education, communication and empathic connection.

Cohesion

A group is only a group when it behaves like a group. The cohesion of the bonds holding members of a group together is a factor of their ability to see themselves in each other: to establish empathic connection. This vital element is the primary determinant of group size. Cohesion and empathy can be nurtured in a group through education and intentional community building.

Mutual identification with a symbol of the group also provides a useful cohesive force. The most common example of this in today's human societies is identification with a nation state. However the development and maintenance of cohesion is undoubtedly one of the most significant challenges of today's large human societies.

Human Scale

One of the factors controlling the expression of impulsivity in group members is their sense of cohesion with others, who have retained their considered approach. The “impatience” of an individual is unrestrained when they are alone, but in a group they will normally restrain their impulse to go arational for longer, while they can see that their colleagues continue to work at finding a rational solution.

These natural mechanisms have formed in the human nervous system to control both docility and impulsivity over many generations, and seem to have a natural limit at around 50 members. This resembles a typical village or tribe group size. The formation of groups larger than this natural “human scale” are dependent on deliberately constructed and maintained social structures; indeed much of mankind’s history for the last 2,000 years can be seen as a continuous struggle to expand the functional size of coherent human societies beyond the constraints of tribal scale.

Communications

It stands to reason that all the members of a single group need to be able to communicate with each other, to participate in the deliberations and to understand when decisions are made. The larger the group size the more dependence there is going to be on technologies that enable communication across a wider expanse then can be made directly between the members in person. The arrival of digital communications has greatly increased the potential size of human societies, but the quality of the content in the communication is as important as the ability to reach everyone.

The availability of high fidelity information, received in a timely manner, is a success factor that human societies are still struggling to deliver. Until this situation is improved it presents a real and substantial barrier to the quality and function of large-scale decision-making.

Education

A groups dependency on the quality of its educational systems is in direct proportion to its dependency on specialisations. The greater the range and granularity of specialisations, the greater the total information load that must be carried from generation to generation. Also the larger the group, the more sophisticated its social structures are likely to be to maintain the cohesion between all members; this requires more extensive social education for all members of the group.

The resource burden of providing this education, along with the lost productivity of members because it takes them so much longer to reach the point where they can be productive in the group represent a significant constraint on group size.

Infrastructure

Large human societies are coagulating into large cities, and for good reason, because such condensed proximity can make communication, commerce and interactive deliberation more effective. However these

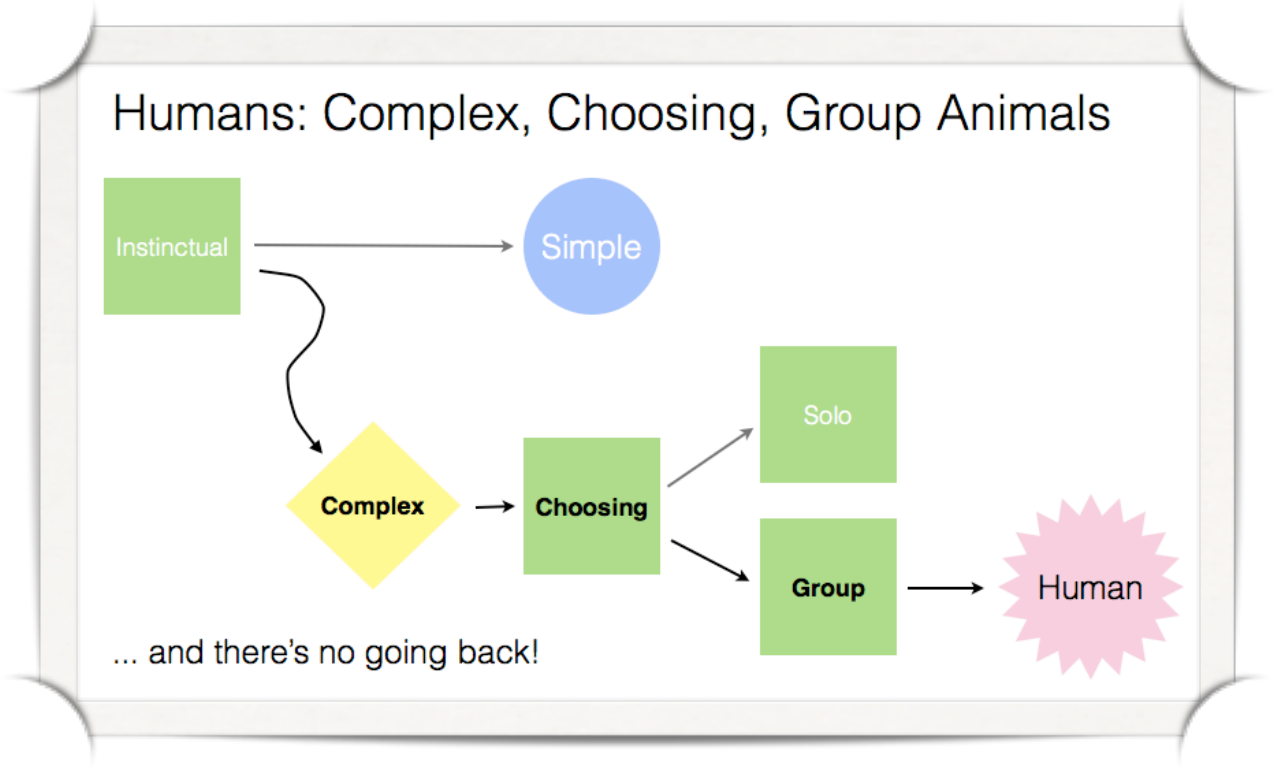
concentrations of population also require the society to deliver a substantial portion of services that would otherwise have been delivered by nature: water to drink, sewage disposal, rainfall drainage and food delivery, to name but a few. It also becomes necessary to manage vital natural resources such as air quality and pollutions of all kinds.

There are many metropolitan areas in today's world with populations of millions of humans, but which only have a few days' food supply in the locality. This is one example of the fragility of the current infrastructure underpinning large-scale human societies, and infrastructure is undoubtedly something that will need to be reinforced in order to sustain the large group sizes we are already achieving.

As noted above, the larger the group the more emphasis needs to be placed on providing high-quality education and communication systems. Combine these with requirements for mass transit systems, for a functional democratic process and the maintenance of social order, and it starts to become clear that the ability to maintain a large and sophisticated infrastructure, enabled by a wide range of specialists, is a significant challenge to very large group sizes.

Where We Are Now

Today's human societies are large groups of choosing individuals, using advanced learning to mitigate the risks of choice. Human biology tells us that we have already passed through the gateways and made the commitments to being highly complex decision makers with a group orientation. Our large, complex and resource intensive nervous systems demonstrate our commitment to selective choice, and the use of advanced learning to mitigate the risks of choice. Our individual frailty and absolute dependence on community testify to the commitment we have already made to group orientation. On these commitments there is no going back, homo sapiens will either make these bets work, or fail abjectly.



Dependent on Specialisation

Any species that achieves the scale that humans have, becomes heavily dependent on specialisation. The infrastructures that support the vast human population are complex and interconnected in fragile configurations that are substantially dependent on specialist skills and uninterrupted operation. Today's human population of 9,000,000,000+ is unsustainable without complex infrastructure supported by a multitude of specialists. Failure to maintain the cohesion of our large groups will result in the loss of the specialisations we have become dependent on and result in massive infrastructure failure, and consequent population collapse.

Large groups with sophisticated social structures, are dependent on the members employing sophisticated, conceptualising rationality to participate in and maintain social stability (group cohesion). The balances between individuality, docility and impulsivity that support a successful large scale society are finely tuned; and the individuals in the population all need to have sufficient appreciation of the values and purposes of those structures, such as The Rule of Law, that they actually put them into practice. This makes the success of the whole group *as dependent on effective social education,* as it is on specialist skill development.

Recognising these dependencies encumbers us with the responsibility to maintain the quality of our specialisations, and to build as much resilience into our complex infrastructures as we can. To assume that our species will not be tested by coming changes would be beyond folly, it would be deliberate ignorance deserving of the terminal fate it would surely attract.

Two primary objectives for modern human societies arise from this understanding:

- The quality of the education system is a fundamental determinant of the success of a modern, large-scale human society, because education is required to maintain specialists skills and socialise the citizens.
- Focusing on the design of distributed, anti-fragile infrastructure as the fundamental building block of resilience.

The Unsung Herd

Contrary to the commonly derogatory use of the term “herd mentality”, the widespread practice of docility across of a large group is actually a functionally necessary pre-condition for specialisation to thrive. Without the acceptance of specialist knowledge and judgement, specialists are unable to benefit the group.

Excessive docility is a disadvantage for a group (see above), and so the balance between accepting useful specialist contributions and not abdicating to the impulsive, is the delicate meter at the heart of whether a modern large-scale society is functional or not.

Freedom & Innovation

Undoubtedly the ability to innovate in the face of change is a primary determinant of evolutionary survival and success. Innovation is the process of developing new solutions, and if we examine the requirements for this to occur in the context of an advanced learning species, we can determine the pathways that have to be open to allow innovation to flourish.

By innovation we are referring to the conscious development of new ideas, as distinct from the new capacities that arise through random mutations. Both can deliver new capabilities, but only one is subject to deliberate intention.

Unnecessary Choice

Innovation can occur in two temporal modes:

1. Under pressure in the moment, just the right combination of circumstances and aptitudes yields an innovative solution. This is better than no solution, but highly fragile, as there is no guarantee that a solution will arise.

2. Innovation can be supported in the free space, and with the extra resources available, when there is no pressure on the society. This allows for multiple iterations of experimentation to yield, develop and test possible solutions and perform the research in advance of a change event. There is no guarantee that the solutions developed will be the ones that are needed when the time comes, but there is a better chance of success if multiple options are pre-developed than a sole dependency on spur of the moment solutions.

Without the pressure of an event to inspire innovation there has to a more deliberate understanding of the conditions within which innovation will occur, if it is to be fostered in an un-pressured environment. Then that understanding has to be used to ensure that the spaces exist to provide the opportunity for innovation to arise.

Innovation space

Solving a problem that does not exist requires that the members of a group have the freedom to express their individuality. The innovating individual is going to engage in the exercising of unnecessary choices, and even impulsivity, to solve a problem which does not exist; and this highly abstracted activity requires that their group provides allowance for such a use of resources, even if the only resource being consumed is the innovating individual's time. Because it is not possible to pre-identify innovating individuals, this freedom for individuals to engage with their abstract rationale must be a freedom generally available to all the members of the group.

Freedom is the allowance of experimentation. Experimentation is the practice of unnecessary choice. Innovation is the result of experimentation. This is why generalised personal freedom, in which individuals can reasonably reject docility and deference to the group in their own personal space, is a prerequisite of innovation. And innovation is a prerequisite of survival, which makes freedom really important.

Group Cohesion

A group is only a group when it remains bound together in a mutual commitment to common survival.

We are bound into our large group societies because we need the specialists that build and maintain the infrastructure on which we depend. That makes maintaining the cohesion of our large groups critical to our survival. Any 'winner take all' mentality is disconnected from this reality. Misreading 'survival of the fittest'

as if it applies to the individuals in human societies, is to completely misunderstand the true nature of homo sapiens. We are deeply committed to our groups, and we are as individually successful as our groups enable us to be.

So vital is our membership of a successfully cooperating group, that our biology is actually wired to draw us to that, like an evolutionary 'carrot'. What we call happiness and love are experiences that result from successful cooperation.

Happiness & Love

As academia has explored the nature of 'happiness' in recent years, it has become increasingly understood that humans experience happiness in correlation to the extent that they engage in evolutionarily successful activities, which in the case of humans, are all about successful group cooperation. By extension "love" as an evolutionary mechanism that suppresses the ego in response to a recognised opportunity for successful cooperation with another human; and sustenance of the experience of love is directly tied to the continued ability to consciously practice the cooperation that was originally recognised only as an opportunity by the subconscious mind.

It's true that "all you need is love"; but love is a result, the action that produces it is cooperation – understand that, and you can make love happen everywhere you go in life!

The Libertarian Myth

By now it should be obvious to see the holes in the Libertarian myth of the rugged individual, and their 'moral responsibility' to themselves, as their primary responsibility to their society.

The heart of the Libertarian myth is the notion of personal responsibility, the idea that if everyone just took care of themselves, then the whole would take care of itself. It is true that personal responsibility is a prerequisite to a functional, large scale society; but that responsibility is a responsibility to understand the interconnected nature of our status, and to fulfil our role in the context of the group we are a part of. Self-reflected individuality is only vanity and ego, it bears no resemblance to the truth of our status.

We are as individual as ants. As we can see from the evolutionary path we followed to arrive here, the pursuit of happiness is the pursuit of successful cooperation, recognised by our subconscious mind and activated through our superior reward system. The greatest torture it is possible to perform is to separate a human from companionship. These truths fall like an axe at the base of the fallacies on which the Libertarian myth is built.

Without the complex infrastructure and wide range of specialists supported by today's cohesive and interdependent societies, only about 10% of current human population could be supported. The truth of the Libertarian perspective is that it is tantamount to saying: "Only 10% of us should be alive, and I believe I am one of those that should survive". So next time someone tells you that 'society' does not exist, or that the

state should concern itself solely with the defence of the realm: ask them which nine people they think should be sacrificed to enable their continued living!

The Libertarian myth appeals to an old picture of us as if we still existed many steps back in our evolutionary development. It suggests that we can be a solitary species again, and that is just pure fantasy. Even if one suspended disbelief for a moment, and believed we could return to being a solo species, just how many leopards (an archetypal solitary species) are left in the world today?

Enough said. Stop fanning your ego, formerly-known-as-Libertarians, and come and muck in with the rest of us to make this mess work as best we can – we need you, and it's fun!

20th C Failures

The balance of impulsiveness and docility within a large human group remains one of the most significant differentiators between today's human societies, and it seems to be the factor still most subject to evolutionary forces. Many of the mass derailments of 20th century human societies can be laid at the feet of an imbalance in these factors across the populations involved, most typically the conflation of high degrees of docility with extreme pressures on the society, leading to the promotion of overly impulsive leadership that rode in on the excessive docility of the population, and then drove the entire society into a disastrous cycle of, first, internal deconstruction (specialist disenfranchisement), and then external destruction (war). Without proper understanding of the role of docility within human society, these mistakes have been repeated.

The situation usually develops like this:

1. The growth of the middle class (specialists) rightly encourages the practice of docility, as the entire society benefits from the increase in the wealth of the whole society;
2. Along comes an external pressure, and the ascendant docile modality fails to address the problem effectively by prolonging ineffective consideration of peripheral details (specialist constipation);
3. Decision making is shifted to a strong leader (a highly impulsive opportunist), who sets about discrediting the incompetence of the people who "got us into this" (specialists and the different), and proffers simplistic solutions (impulsive solutions are always arational);
4. The momentum of the established, ascendant docile modality (see 1. above) allows the strong leadership to gain control of the organising structures of the society, which then embarks on the pursuit of their arational agenda, usually involving the mass elimination of some entire section of their own society (usually some of the specialised groups), and then maybe a few other societies for good measure.

5. The process finally comes to an end when the leaders have destroyed pretty much the entire specialist class, and everyone's abstinence from the use of good judgement brings their society around down their ears.

This is not an inevitable cycle. These failures were *not* the result of seeking big solutions to big problems. They were caused by the failure of the specialist classes to stand up for themselves, and for everyone else to demand that they did. Perhaps when the whole group has a clearer understanding of the importance of sticking with rational judgement as long as possible, and the vitality of maintaining specialists' authority in their areas of specialisation, and the interconnected and interdependent nature of human society, that is not threatened by the diversity it supports, but is in fact strengthened in direct proportion to the extent that it can practice tolerance… then we, homo **sapiens**, will stop re-cycling through these completely avoidable failures.

The Way Forward

What can we distill from this investigation into the origins of human behaviour that will help us create better structures for our societies in the future? Undoubtedly the most important element we must incorporate into our plans for the future is the conscious recognition that, no matter how far we have risen and how fast we got here, we have not escaped the biology of our evolution or the constraints of our host planet.

Embracing What We Are

The first thing to understand and embrace is our true natures: we are a group orientated, complex problem solving, specialised species.

- Large groups are an advantage for us.
- Big problems are what we built ourselves to solve.
- Highly skilled and widely diverse societies are the features of our most successful configuration.
- We are endowed with individual judgement, a faculty we support at great cost, and which deserves to be used to its fullest.
- We are naturally docile and deferential to others whom we trust, and in whom we recognise special abilities.
- When we run out of good options, we jump at any available option. This may be necessary some times, but we should strive to make this unnecessary as much of the time as we can.

The Keys to Our Future

Then there are some key principles that we can divine from our understanding of our true nature, that should act as guiding lights in our plans for our future.

Bottom up, as human scale as possible

One key is the understanding that we operate much more efficiently and naturally in intimate groups where empathy is active. These are “human scale” groups, and if any decision making body is larger that this we must be vigilant for the appearance of disconnection and corruption.

If our objective is to reach the best decisions we can, we have to allow for the nature of our minds and the constructs that have informed their development to-date. The direct flow of communications between people

who know each other enables the operation of natural, finely-evolved, negotiating skills, at both conscious and subconscious levels. In these 'human scale' groups it is most likely that rationality will maintain reasonable ascendency over impulsivity, and the best judgement possible will result.

This principle can be practiced by placing any decision-making point in as intimate a group as is practical. For any problem, we must first ask ourselves if this can be solved in a local community setting, and only escalate it up the hierarchy to regional or national or international layers if the degree of specialisation needed merits its promotion. Even at higher levels it would be beneficial to keep the number of people in the room at the negotiating table to human scale numbers (<50).

Importantly, in smaller "human scale" groups the naturally occurring bonds of empathy between the members are the bulwark against corruption. The less established the rule of law, the more important this is. The reason the "tribe" was the preferred unit of human organisation until the modern era, is because that was the level at which unwritten and uncodified law could reasonably be practised, because its efficacy was dependent on the empathic bonds between the group members. Once the rule of law is more established, and there is reasonable certainty that the same rules will apply across a wider population, then that population will adopt more widely-based decision making. In this understanding we can see the fatal flaws behind many recent attempts at "nation building".

Honouring specialisation and diversity

No group is stronger because everyone in it is the same.

Groups that succeed will be those that support the widest variety of membership and the highest levels of specialisation, because they have the best chance to develop the solutions to the problems they face, and will face in the future. Homogeneous groups are extremely fragile, especially compared to their homovarious contemporaries.

The more perspectives, aptitudes, attitudes and insights a society can support the more accurate and holistic their view of the world will be. The more specialists, artisans, craftsmen and artists a society can support, the richer their veins of innovation will be. Variety is not just the spice of life, it is the DNA of survival.

Striving for function

At this point in our evolution we have been so successful, that now we must deliberately rise to the occasion of our own success. We are co-partners, with our planet, in determining if the experiment of very large scale human populations are sustainable, or not. If we can see ourselves in our true context, as a very successful species that is still dependent on our environment, and needs all the resilience we can muster to be ready to face the unknown future challenges; then we can consciously build our societies and infrastructure to meet those objectives.

We have developed all the natural skills we need, we know how to sustain innovation, we can see that we are all in this together or not at all. What remains is the courage to grow into the boots we must fill, the strength to shoulder our responsibility, and the desire to make this work out the very best we can.

Consciously we must strive to:

- Nurture diversity through tolerance, and welcoming the joy of new vistas that others open for us by sharing their perspectives.
- Encourage each individual to contribute their unique skills and abilities.
- Participate deliberately, consciously and earnestly in the decision making processes of our societies. Ever mindful to protect consideration as long as reasonable, to promote action and results as the definitions of success and honour the roles of the specialists in our communities and encourage them to assert themselves to protect and serve us all.
- Pass on the gift of knowledge from generation to generation, and to enhance that gift with all the attention and effort it deserves.
- Make the mutual support of our group members “taken as given”. The basic sustenance and protection of every member of our society must be a bedrock on which we build our solidarity, our capacity and our resilience. We are all valuable contributors of difference and it is difference that makes us all strong.

Conscious belonging

It can be taken as a given that we are only a group when we practise group solidarity. The embodiment of that practice is a mutual assurance of survival. I will benefit from your contribution and you will benefit from mine, even if one our contributions is more useful than the other’s.

The most basic practice of this group behaviour is a mutual commitment to the bare necessities of life. So long as we behave like a group member, and to facilitate belonging to the group, we must each be automatically embraced by a mutual covenant of support.

Whatever the group can give is what is available to be taken. Take what is freely offered. The basic necessities of life (shelter and sustenance) must be provided universally, plus whatever we can afford as a group to promote the cohesion of our group and the greatest contribution from each member (access to education, transport, health and information). These, along with the basic rights and protections that form the basis of our free association, are the gifts of the group, and the practice of our solidarity.

Resiliency & happiness through cooperation

Joy and happiness are the rewards of successful evolutionary behaviour. The behaviour that results in happiness and joy is successful cooperation.

Place cooperation at the heart of our organising principles, and we can expect that abundant joy and happiness are going to be the result. As the Bhutanese have discovered, measuring Gross National Happiness does not tell you how to organise to increase it. Understanding our evolutionary biology does tell you: we are designed to experience happiness when we co-operate successfully.

Human species in the context of our planet and all life thereon

We have not escaped reality. We are the fruits of the Earth and the progeny of Nature.

We must retain our humility, and keep faith with our true context as just one species on the only planet available to us now. We do not understand all of the forces of Nature, we cannot foresee the consequences of all of our actions. The only incontrovertible truth is that we and our progeny must live here on this planet, and that our brief history has been during a period of unprecedented climate stability.

Our societies must organise on a foundation of respect for the environment that hosts us, and invest in the maintenance of our infrastructure to lighten our footprint and prepare for the less expected. These are evolutionary constraints on us that are not of our making or of our shaping. These are unavoidable fundamentals of survival.

Avoiding past mistakes

We can look all too easily into our recent pasts to see where we have gone wrong. We must look, we must understand. We must learn, and then we must commit to do everything we can to avoid those mistakes going forward.

The practice of Conscious Democracy is about putting in place structures for the organisation of our societies that are the best we can deliver, that seek to redress what we know are own weaknesses, and which aim to maximise the strengths on which our evolutionary success delivered us to this point.

As an example of the practice of conscious democracy, let's take the case of today's climate scientists, who are analysing the likely impacts of our activity, and the projected implications and consequences of climate instability. We can see in the 'climate deniers' a rejection of these specialists, and the promotion of impulsivity – for these people the complexity of the problem has exceeded the range within which they can operate rationally, and they are defaulting to arational, impulsive reactions. In the scientists we can see a degree of stupefaction, as they hesitate to reach conclusions from their analysis because, in their minds, there is still more work to be done to reach a quality judgement – these specialists are not paying sufficient attention to their responsibility to meet the reasonable expectation of the group to reach decisions and proceed to action.
With the insights gained from our understanding of natural human behaviour, we can deduce that the best option would be to adopt the considered judgement of our specialist scientists, but set them a deadline for reaching conclusions that are sufficiently strong to make good enough decisions.

Should happiness, and the pursuit thereof, be the driving force behind societies?

Yes, so long as we understand happiness to be the result and not the action. Pursuing happiness means achieving highly effective and functional cooperation.

Should economics trump social egalitarianism?

No, human societies are not rich because they have a functioning economy; they are rich because they have a functioning social structure that supports a productive economy.

Is capitalism a social organising force?

No, capitalism is an economic model. (See Sustainable Economics paper.)

Is communism naturally aligned with the nature of humanity, or an idealistic masspiration?

All utopian collective models are extensions of our natural and deeply engrained impetus for cooperation and as such there is nothing wrong with them. But the nature of humanity also includes difference, variety, freedom and innovation, as well as competition, ambition and desire. Models for human societies that do not allow for the full nature of homo sapiens are doomed from the outset.

Did malevolent dictatorship lead to the 20th century's genocides?

Yes and no, highly impulsive and arational leaders jumped into the gap left by the failure of the general population, and specialists in particular, to consciously enforce the importance of considered and deliberate judgement, within a reasonable time frame.

Excess docility allowed impulsive opportunists to take control, and quickly dismantle the layer of administrators and freaks that are so important to a functional large group. Its the plodders and the outliers that represent the judgement and the freedom in a society, and when they are removed the group is left with nothing but impulsives and dociles with limited complexity ranges. From there it's all downhill.

Is benevolent dictatorship the answer to our problems?

Small groups make worse decisions than large groups, and individuals make worse decisions still!

Dictators are always overly impulsive, they glory in reaching quick arational decisions because they have very limited complexity ranges, and the same limitation leads them to always see variety in the group as a threat, instead of recognising it as a core strength of the group.

The ultimate expression of docility is to abdicate responsibility, and that's what this question begs for permission to do. No, sorry, a highly impulsive and arational decision maker is not going to do all the hard work for you. Roll your sleeves up and get stuck in – the solutions are better with you engaged, instead of cheering on a fantasy rescuer.