Protecting individual identity and diversity in a united world: a new basis in fundamental ethical theory.


Abstract

The issues of safeguarding individual identity and promoting a flourishing, unified world community are profoundly interlinked, with one critical nexus lying in the question of how humans should act towards each other, how they can possibly trust others different from themselves. This is a fundamental moral question. This paper proposes a new moral framework that addresses these issues. The proposed principle focuses on intentional choice in accordance with stated objective criteria of good and evil. The criteria themselves are universal: the good aims to benefit all without exception, whilst the evil aims to harm even a single innocent. As a principle of willed action, there is no inconsistency with the fact that the imperfect world may prevent achievement of the goal of the good choice, and may bring about the circumstance one is trying to avoid in rejecting the evil choice. But these criteria provide concrete guidance: in personal living, in relating within and amongst groups, and in designing laws and social systems. Also, in a world that practised such an ethic, personal identity, security, and belonging are enhanced for each individual by their trust in the universal care practised by others. This paper explores how the goodness principle works in practice to fulfil this promise.

Introduction

How different can we be and still be united? One who contemplates the changing ideas towards unity, diversity, and tolerance through history will probably agree that the wider the answer to that question, the more mature, the more conducive to peace and happiness, will be one’s attitude towards others and one’s expectations of one’s own behaviour.

This paper proposes a specific principle of Goodness that gives the widest possible answer to this question: we can be any sentient beings at all. No limitations of family, race, nationality, or even membership of the human species, need limit our attempts to form connections of genuine unity with others. This principle is not new; it seems it is already present, though perhaps unrecognised as such, in the great religions and philosophies of the world. It is the intuitive belief of a great many thoughtful people, although many might not have been able to explain in words their beliefs about respecting and caring for the welfare of others as well as themselves.

In this paper we shall firstly, explain the Principle of Goodness; then, because, as a matter of fact, it is easy to mistake the Principle with a simplistic and naive appeal to everyone to “be good”, show why it differs from such appeals, which have already been tried many times with less than satisfactory results; then we shall explore some implications of the Principle for both individuals and cultures; lastly, we shall make an abbreviated survey of some of the world’s great religions, where we shall uncover some tantalising hints that this Principle is already present, however hidden or disguised, within their highest
ideals and teachings. At the deepest level, there may be something of the greatest value that we all have in common; perhaps the many destructive ideas at large, based on superficial differences and threatening to divide us from each other, might not have it all their own way?

**The Principle of Goodness**

Many of our greatest thinkers have maintained that there is much more that unites us than divides us. The names of Martin Luther King and Mahatma Gandhi spring to mind, but there are many more. Unfortunately it has been all-too-often that communities have listened to the siren-songs of the dividers than to the soft voices of the reconcilers. Those of us taking part in this congress are finding a myriad views and perspectives to show how it is not a hopeless task to overcome the divisions. One cause of division is fear, and a cause of fear is uncertainty as to how others will act towards us. But what if we knew that a stranger of another race, religion, and nationality was no more likely to hurt us than our own best friend? Would not such knowledge about that stranger help us to overcome our fear and defensiveness towards that stranger? And what if the stranger knew the same about us, that we in turn cared for that person’s welfare, even though we had never met them before? What if there was a universal ethic, a fundamental principle of moral behaviour, that we all shared, and that principle required us to care for all others? And what if that principle were already hinted at in all the great religions? And what if it were a perfectly practical principle, not merely a grand emotional exhortation?

Let us start by stating the principle, and then situate it by determining its relation to some other well-known ethical theories; then we shall look at some evidence for the promises just given. Our starting point is that good and evil are realities. Therefore, our principle is first of all a description of these realities, and only secondarily a definition of the words “good” and “evil” (so as to make the words accord with the realities). In its simplest formulation, the Principle is this:

**Goodness** is to attempt to benefit everyone;
**evil** is to attempt to harm even a single innocent one.

One can make headway in understanding the Principle by comparing it with utilitarianism. It can be argued that utilitarianism and other consequentialist ethics are popular moral principles of our time. What, after all, could be better than making as many people happy as possible? Consequentialist theories may be regarded as making a statement of the form: “One’s moral duty is to maximise measure of welfare X”, where X differs between variants of consequentialism, and where “maximise” is shorthand for the tedious “maximise, or, where that is impossible, minimise the loss of, or minimise the opposite of”. We are here not concerned with any further subtleties of consequentialisms, such as “rule” or “act” utilitarianism, as we already have all we need to situate the Principle of Goodness relative to consequentialism.

Perhaps the most noticeable distinction between these theories is that the Principle of Goodness is absolute: “... benefit everyone. Don’t ... harm any innocent one.” Consequentialisms make no such recommendation, because it is obvious that benefiting everyone and harming no one is, usually, quite impossible in the actual world. Every ethical theory must somehow allow for this practical defect in our universe, and the consequentialisms do it by reducing the extent of the obligation. Thus utilitarianism tells us to make as many people as happy as possible, not to make all people optimally happy, and it tells us,
not to hurt no one, but to hurt as few as possible, or to balance the harm to some against benefit to many more.

This brings us to the less obvious difference between these theories: utilitarianism is, as the generic name for all such theories attests, consequentialist: the morality of action is judged by its consequences. Yes, allowances are made for things not turning out the way we expected; for example, someone trying to grow a crop to feed starving people might spray it with a pesticide that poisons the waterways and destroys the only source of drinking water. In that sense, a utilitarian might say “Yes, things turned out badly, but at least he meant well.” Such allowances for human fallibility do not alter the fact that, if one did know the consequences beforehand, one would be compelled to act so as to maximise the outcome.

The Principle of Goodness allows for the universal defect mentioned above in a different way. The principle has an end in view (benefit all) and an end to avoid (harming any innocents), but it does not judge morality by achievement of the benefit or avoidance of the harm. Instead, it is a principle of the willed intention, that is, the attempt to put the moral choice into action. That willed intention may fail, but the goal of the intention should not change on that account. The correct moral choice is not determined by the consequences, actual or anticipated, but by the intended consequences. For example, a criminal might threaten “You must kill this one person, or else I shall kill those ten people.” It is open to a utilitarian to reason “The deaths of ten are worse than the death of one, so I shall kill the one.” One who strives to implement the Principle of Goodness cannot reason thus. If I attempt to kill one, then that is my willed intention, and is, according to the Principle, evil. I can refuse to kill the one, but then go on to attempt to benefit the ten by trying to persuade the criminal, or trying to intervene, or to get the police on the scene in time; and I can do these things even if I feel sure that these measures will fail. The paradox here is that this action may even be in accord with utilitarianism for, if criminals knew that my ethical behaviour was unbendingly in accord with the Principle of Goodness, such a threat would be seen as pointless at the outset, and might not even be made at all.

Because it is concerned with willed choice informed by anticipation of outcomes but of a moral value that is not determined by them, the Principle logically has another outworking: in acting according to Goodness, I might fail. We might modify our previous example as follows: Instead of a criminal making a threat, I find myself confronted with a lever. One setting will kill a single person now; the other will kill ten people later. The lever is connected to a senseless mechanism (a pre-programmed computer, say); I know how it is programmed, and there are no other possibilities except one death now or ten later. I have the choice of setting the lever to one position or the other. It makes no difference how the lever is set when I first confront it; an intention can be a choice to not act as much as a choice to act, and so I cannot “opt out” by leaving the lever on its original setting. Clearly, I am going to fail. I am not being evil, as I have no intention to kill anyone, no matter what I do to the lever. Neither can I be good, as either setting represents a choice that someone’s benefit matters less than someone else’s.

In practice, faced with such a choice, the intuition of a person guided by our Principle will probably be to postpone the evil: to choose the later deaths of the ten. That allows for other action, after the one is safe, on behalf of the ten, such as trying to sabotage the controlling computer. There are important questions that need to be addressed following on from this, but we shall look at only one in this paper: what is the difference between our original and our modified scenarios that is relevant to making these
different choices?

A key difference relevant to this conference is that in the former case, the criminal has free will. My actions do not flow mechanically and unfailingly to the deaths of the ten, should I reject the blackmail threat. If I judge the two situations identically (that is, regard them both as instances of my having no non-failing options), then I must judge that the criminal lacks free will, and that is a terrible judgement to pass upon a human being. Nevertheless I might, on occasion, pass it. For example, a group acting undercover within an evil totalitarian regime, might mutually agree that, if some are captured, the rest shall take whatever option gets the greatest number out unharmed. Such an agreement would be based on an assessment that any likely captors would, in effect, be automata acting out the regime’s orders, and not individual humans with free choices. But whatever scenarios one might posit along these lines, it is clear that one major way the Principle gets space to ‘breathe’ (that is, to allow genuine moral choice, rather than a continuing string of failing harm-minimisation choices) is precisely from the belief that other people are free souls. They can choose! Determinism, whether based on theology or on recent theory about people’s acts being non-culpable due to upbringing, etc., is not fatal to the Principle of Goodness, but it limits our confidence that we will be able to put it to good use. But this is probably true in relation to any theory of ethics at all, if the analysis were to be pushed to the limit.

Another relevant difference is whether, when we must fail, some failing options result in abandonment of selected groups. We need to draw out the difference between utilitarianism and the Principle of Goodness in this case. Let us construct a thought experiment to illustrate this from the circumstances of the sinking of the Titanic. When the first officer saw the iceberg dead ahead, he ordered turning the ship to port in an attempt to entirely miss the iceberg and thus save every life. The outcome was disastrous. Some recent commentators have proposed that the “correct” choice was to order full astern and allow the ship to impact the iceberg head-on. This, so the argument goes, would have collapsed the front few compartments, but would have left the rest undamaged and have allowed the ship to remain afloat.

Let us say that the number killed by hitting the iceberg head-on would be \( N \) and the number killed by trying but failing to entirely miss the iceberg would be maybe \( 3N \). A utilitarian might argue that, yes, \( 3N \) is larger than \( N \), but, given the lack of knowledge before the disaster, the first officer might have expected a three-quarters chance of missing the iceberg, so the deaths of \( 3N \) are only 25% likely, whereas the deaths of \( N \) by ramming the berg head-on are completely certain, and thus trying to miss has the lower expected (in the statistical sense) toll. So let us say that somehow the first officer knows for sure that trying to miss will fail. Now he has two failing options: hit and kill the \( N \) in the bow, or try to miss and kill \( 3N \). In this case the utilitarian must answer “Kill the \( N \)” or be convicted of special pleading or mere rationalisation, as [Finnis] has persuasively shown. But our Principle requires another consideration. Ramming the berg is a choice to sacrifice the \( N \) in the bow for the rest of us. Trying to miss, although it kills \( 3N \), is not such a choice. If we try to miss, knowing that \( 3N \) of us will die, we have not sacrificed anyone “for the rest of us” because we each take our chances as to whether we are in or out of the \( 3N \) who die. We have not abandoned anyone; we are all in it together and we can still act to mutually support any and everyone that we find ourselves in a position to help as the ship goes down. This example shows that the Goodness is a principle of universal care, which utilitarianism is not.

The Principle of Goodness and the Individual
This paper does not comprehensively situate the Principle in the landscape of existing ethical theories, but we have seen it is inconsistent with utilitarianism. This particular comparison was chosen because it can be argued that the common tendency in the west today is to judge all social theories, including ethical ones, by their workability, which usually collapses into whether they recommend the course of action that is ‘best’ – in a utilitarian sense! The western thinker, unless very careful, is thus on a preset path to rejecting non-utilitarian theories: either they recommend the same thing as some consequentialist theory, in which case they are superfluous, or they do not, in which case they are ‘wrong’ by definition.

Our thought experiments above challenge this preconception by showing cases where Goodness recommends action that is less than the ‘best’ in terms of the final outcome. But they also bring out a key benefit of the Principle, which no utilitarian theory (again, see [Finnis]) can possess: there is irreducible direct concern and care for each and every ‘victim’ of a wrong or unjust act. No amount of average benefit or long-term effect can cancel this concern. Whilst this is surely a good thing, it poses the basic question about individual living, as to whether the individual is handicapped or overburdened by this irreducible universal care.

This concern is allayed by the fact that the theory concerns the willed intention, not the outcome. I need not succeed in benefiting everyone; nor, if my irrelevance to some others’ welfare is obvious, need I worry or agonise over them. The Principle doesn’t tell me to get worried or to torture myself with my compassion for situations I cannot fix or affect. It tells me only that, if I can, I should. And in this regard, we must remember that we ourselves are included within the “everyone” for whom we must have regard. Indeed, it is easy to show that I must have primary regard for myself – not in the sense that I must selfishly favour myself, but in the sense that, of all people, the one primarily obligated to benefit me is me. For consider if it were otherwise, if others had to spend their time and divert their own concern into checking that I was not starving to death as a result, for example, of giving everything I had to the poor. It is clear that a workable approach based on Goodness must be for each of us to plan to live a flourishing and happy life built around a generous care for others. Others will care for us, will never “let us down” when we are in need, but they will also care for themselves and promote their own interests, if for no other reason as to not burden our own feelings of ethical obligation. Likewise, we shall do the same in relation to them.

As an aside, we note that this shows that Goodness is not an ethics of duty, in the sense of Kant’s view that only acts performed out of duty may be described as ethical. This follows trivially, because being joyful simply from doing a good act, or from seeing the happiness in others brought about by one’s good acts, is just as valid a way to benefit oneself as any other.

Another personal issue is safety. In a diverse world, a world in which we might not necessarily understand or know the intentions of others, am I handicapped by adopting the Principle of Goodness? The Principle requires me never to attempt to harm the innocent. If my intention is to adopt the Principle only to the extent of avoiding evil (but not necessarily to do positive good), it would seem that this is a very easy standard to live up to. One can defend oneself against an attacker, or take realistic decisions in business or other affairs to protect one’s interests against wrongful or unfair practices by others. None of this is compromised should one wish to go further and practise the positive aspect, actually promoting goodness (rather than merely avoiding evil). Because of this, the Principle is *robust*; all the better if the whole world practised it, but even if just a few or even only one person does so, they will
not be handicapped in their dealings with others.

**The Principle of Goodness and Society**

In this section we briefly look at some of the ways in which the Principle of Goodness provides guidance for the arrangement and conduct of human social and political affairs. That it can do so may seem surprising, as the Principle might seem too simple, too naive, to be able to do that. Indeed (as I shall show in the next section), virtually every part of the Principle has already been recommended before, somewhere in the world’s great religious teachings or other philosophies. For example, many ethics of duty contain the precept: “Do not harm the innocent.” Indeed, Socrates’ refusal to kill Leon (See [Plato]), even though it seemed for all the world the result would be both his own death and Leon’s, is a clear-cut refusal to do evil on precisely the correct principle, as stated above. Socrates could not intend the taking of Leon’s life, and that was that.

The reason, I believe, why this principle is so ancient, so well-known, and yet largely bypassed, is that it is usually believed to be a *consequence* of some other moral reasoning rather than the very source of morals that (I believe) it is. For example, if indeed Socrates’ actions were morally correct, they were correct *because* of something else. Whether that something is an unanalysable intuition, a duty, the law of God, the greatest happiness of the greatest number, the categorical imperative, or enlightened self-interest, “Do not intend the harm of the innocent” is seen as a *consequence* of some other principle rather than an immediate translation of the description of a reality: Evil is to intend the harm of an innocent.

This has the consequence that, when policies, social choices, laws, and so on, and made, “Do not intend the harm of the innocent” is seen as just one more competing claim to be adjudicated in some way. The reality of our world is that the adjudication is commonly made on pragmatic grounds, which in turn almost always means some form of consequentialism. The examples are unending and range from the individual, through local and regional matters, to issues upon which the future of our planet hinges: “The toxic waste dump has to be in someone’s back yard!” “We have to strike a balance between human rights and security.” And so on, and on.

We have enough room to examine just one social question, and that too only in brief. The example is intellectual property (IP) law. I choose this deliberately so as to avoid the really contentious issues on our minds at present, as we just don’t have time to develop any of them fully, and so looking at them would make no productive contribution. IP, however, is important and yet is not so highly emotive as to obscure the argument. The patent and copyright laws came about for a distinctly utilitarian reason: to promote the sciences and arts. The means was to provide some reward for the inventor or creator. If the means and ends were reversed here, we would have an instance of the Principle of Goodness: the reward ensures that the donor (the inventor or author), having benefited the rest of us, also receives a benefit; the consequence being to spur creativity and forward the sciences and arts.

The copyright system, since the passage in the U.S. of the Digital Millennium copyright Act (DCMA) is in a mess. It is so bad that criticism from the point of view of Goodness can make no contribution that is not obvious, or could do so only on lesser problems. For example, this law criminalises the circumvention of copy protection mechanisms. Imagining a similar law in normal life shows how ill-
conceived such a prohibition is. Imagine a law that criminalised breaking a lock. Now imagine a lock being used by a kidnapper to imprison their victim! No further comment is necessary, and so we turn to patent law.

Patent law grants a right of exclusive use to the creator of an invention for a specified period of time, during which others are required to license the invention in order to use it, thereby providing remuneration to the inventor. This is so whether one copies the invention or reinvents it independently. Secondly, because of the significance of being granted a patent, an application is (supposed to be) examined in depth to ensure originality and non-obviousness. Therefore a costly fee is charged for a patent; typically in the many tens of thousands of dollars. From the viewpoint of our Principle, we can immediately criticise the fee: wealthy companies can patent anything and everything, from the radical and brilliant to the trivial. A poor person, maybe someone living hand-to-mouth in rural India or Africa, devising some new process of the utmost value, simply can not obtain a patent. Yet our Principle tells us that we should attempt to benefit everyone. Laws, certainly, must be designed so as to make that happen, if at all it is possible. The structure of patent law guarantees that the neediest inventors will not benefit, and so is a wrong law.

Even worse, the law is used to steal from the poor. Indian villagers, aware for thousands of years of the benefits of the neem tree, have had the rights taken from them because deep-pocketed multinational companies have been able to patent the tree out from under them. Although this is undoubtedly a misuse of the law, it is also an effect of the law’s basic fault that the villagers could not afford the patents themselves, nor could they afford to challenge in court the presumption of validity attaching to a patent.

There is another more subtle flaw in patent law that also harms the less affluent: one can violate a patent even if one is unaware of it and created the innovation independently. This means, especially since patents are allowed now on intangibles such as computer programs, that a vast patent search is required before one can comfortably market anything, even if one entirely devised it oneself. Computer programs in particular are a good target for the more educated among the poor, as, apart from access to a computer (and outmoded ones can be very cheap and yet suitable at a pinch), there is little cost except one’s time. But what about the patent search? And how does a poor individual gain the skill to know how to do one unaided? That is a whole other skill domain, requiring knowledge on quite a higher level. After all, writing a program has a positive result: the program, if successful, will work. A patent search has a negative result: if successful, no prior art will be found. How can a poor person be sure of that?

We see that the Principle requires us to replace patents with something quite different. A suitable replacement will: be automatic (no expensive fees or processes, beyond maybe a small administration fee); and will require that one actually gained one’s knowledge from the patented material for an infringement to occur (to remove the need for expensive searches). This should by no means be considered an adequate treatment of the patent issue, but rather a sketch to illustrate how the Principle of Goodness may be applied in practice. In that regard, one final remark: the above discussion does not rely merely on an appeal to our intuitive ideas about equity or fairness; it arises from the rule (which follows from the Principle) that governments should not be partial; they should not frame laws so as to exclude a subset of innocent people from partaking in benefit they themselves created. On the other hand, the Principle makes no objection to other distinctions between rich and poor. For example, one cannot likewise show that everyone has equal rights to receive goods from a store, whether or not they
have the money to pay for them. (Although this example does bring about certain responsibilities at the level of social services.)

This concrete, practical issue was chosen, in part, because its ordinariness is far removed from the inspirational wording of the Principle itself; and yet, as we see above, even with such a practical, down-to-earth question, the Principle gives us specific guidelines. It is just as helpful, or more so, with almost any other issue troubling people in our time.

The Hidden Jewel: The Principle of Goodness was here all along

I have also promised to provide some indications that the Principle is already present in the world, in particular, in the great religions and other philosophies that have inspired our species through millennia. To trust others, we would all like some assurance that a unifying principle such as this doesn’t come “out of the blue”, that it has grounding in the great teachings of our species. We can point immediately to the Golden Rule, which, in one form or another, seems to be present everywhere. Its concern for others “as for ourselves” is clearly in accord with Goodness. But there are other, less obvious but perhaps more suggestive or specific, passages in scriptures and teachings from many cultures. But we should remember that such writings often have many interpretations, and the comments below should not be taken as implying that any different way of understanding these passages is invalid or less valid.

A passage I have always loved occurs in the Bhagavad Gita, where Krishna says:

“The essence of the soul is will and it is really single... have done with all dualities, stand ever firm on Goodness. Think not of gain or keeping the thing gained, but be yourself!... [But] work alone is your proper business, never the fruits [it may produce]:let not your motive be the fruit of works nor your attachment to [mere] worklessness. Standfast in Yoga, surrendering attachment; in success and failure be the same and then get busy with your works.” (2:41...48 -- trans. [R.C. Zaehner])

This might indicate a simple ethic of duty. On the other hand, it first emphasises the will, the free choice for good or evil; and significantly it emphasises that outcome, as in consequentialist ethics, is not one’s “proper business”. And yet it teaches, by talking of success and failure, that ethics does have a goal that might or might not be achieved, and it stresses that one cannot avoid these choices by inaction. This sounds tantalisingly close to our Principle’s recommending seeking the benefit of all whilst not judging one’s acts by the actual outcome.

Buddhist writings provide a wealth of apposite references, many focussing on the importance of having regard for every single being, for example:

“A man is not a great man because he is a warrior and kills other men; but because he hurts not any living being he in truth is called a great man.” (270 -- trans. [Juan Mascaro])

It may come as a surprise to many, but the Quran also contains similar injunctions:

“...he who slayeth one, unless it be a person guilty of manslaughter, or of spreading disorders in the land, shall be as though he had slain all mankind; but he who saveth a life, shall be as though he had saved all mankind alive.” (V.35. – trans. [Rodwell])
Rodwell’s footnotes quote a similar passage from Jewish writings:

“...him who kills a single individual of Israel it shall be reckoned as if he had slain the whole race...”

Sikh scripture also mentions harming a single one, and singles out the intent as the key factor:

“In whose heart the calumny of another is harboured, he will never do well. ...Justice is not administered by mere words...” (Rag Gauri. Var: Ram-das: XV -- trans. [Trumpp])

Jesus’ teachings provide us with a wealth of material teaching the Principle, of which we have room for just one:

“See that you do not despise one of these little ones; for I tell you that in heaven their angels always behold the face of my father who is in heaven. What do you think? A man has a hundred sheep, and one of them has gone astray, does he not leave the ninety-nine on the hills and go in search of the one that went astray? And if he finds it, truly, I say to you, he rejoices over it more than over the ninety-nine that never went astray. So it is not the will of my father who is in heaven that one of these little ones should perish.” (Matt 18:10-14)

Conclusion

This paper has introduced a new ethical principle with vast ramifications. It provides a means to develop proactive approaches to world problems, suggesting methods of analysis that can be pursued before crises occur. It is a new way to understand commonalities in seemingly disparate religions, and yet it does not suggest that there is a single right answer to each problem that trumps people’s diverse individual and cultural preferences. It is necessarily impossible, in the time available, to do such a Principle justice. The following are some areas upon which future papers must focus, or in which further investigation needs to be done:

- (Fundamental) What does the Principle actually say? What are “benefit”, “harm”, “innocent”, “justice”? Does intention make sense (free will)? Degrees of good or evil. How to tell failure from failure of will. To whom does the Principle apply? Who is included in “everyone”?

- (Comparative) Further investigation of precedents and similarities in extant religious and ethical systems.

- (Rationale) Exploration of reasons why this should be considered an objective description of good and evil.

- (Practical) What does the Principle say about ... (just about any individual choice, law, social policy, etc.)? Is it practical? How will it compare with outcomes from other ethical principles? (But beware in the last case, of merely concluding “It isn’t utilitarianism” and imagining that this is in itself is an ethical argument.)

In the immediate future, the author, with the other developer of this Principle, Gitie House, will be
considering the Principle in relation to: ethical philosophical theory; further connections with world religions; further practical analysis; human responsibility; choices facing humanity as the planet’s guardians.

**References**


Plato. *Apology.*


Further material about the Principle will be found at:
http://www.sci.usq.edu.au/staff/house/goodness

**Author Biography**

Ron House M.Sc. (mathematics). The author is a lecturer in computer science at the University of Southern Queensland in Toowoomba Australia, with long-standing interests in philosophy, ethics and religion. He was one of the original planners of that University’s cross-cultural course, Australia, Asia, and the Pacific, which aimed to promote cooperation and understanding across the many cultures and peoples of the region. The ethical theory described in this paper arose after a journey of spiritual and metaphysical exploration that he undertook in conjunction with his wife, Gitie House. Ron and Gitie have jointly developed the principle over the last sixteen years.