

Probabilistic Distribution of Human Events (Probabilistic Karma)

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Abstract

Karma originally means action, work or deed; it also refers to the spiritual application of Newton's Third Law, Cause and Effect, where actions of an individual (the Cause) has an equal "effect" on that individual. However, there are other academic theories which explain Karma. In Social Science **History repeats itself** is a secular interpretation of Karma. According to this, history is a record of periodic recurrence of similar events, in different time intervals. Human actions create similar circumstances, thereby necessitating the repetition of similar-nature actions, in every time frame. Mathematics, on the other hand, presents a statistical interpretation of Karma. In statistics, the probability distribution, **Standard Normal Distribution** captures the behaviour of most of the events in the universe. The large sum of (small) random variables often is normally distributed, contributing to its widespread application. Its validity is well proven.

Using the intuition of these two concepts, I posit that every action (of a particular nature) has an associated probability, which is indicative of its repetitiveness. And when an action of a particular nature is committed, it influences the overall probability of that nature. So, actions which correspond to a nature with high probability are more probable of being repeated, than those which have low probability. Therefore, in essence, **a person doesn't get what (s)he deserves, but rather what the probability allows**. This nature is the same base variable which constitutes a person's personality, and that's how it influences the person into committing an action which is probabilistic rather than deterministic.

I plan to run simulations on the developed computational model, which creates an artificial society. And the data I collect will be regarding the trends of the probability distribution of nature of actions. And once I plot this trend, it should assume the shape of a bell curve, with varying mean and median values.

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1 Introduction

1.1 Karma

Karma, as described before, means action or work; it also refers to a conceptual principle that originated in India, often descriptively called the principle of karma. Karma has not one, but multiple definitions with different meanings, arising from the diversity of views from Hinduism, Buddhism, Jainism and other traditions that originated in India, and various schools in each of these traditions. However, all these Karmic theories share certain common concepts: Causality, Ethicization and Rebirth.

1. **Causality:** Paraphrasing from Wikipedia, "... The relationship of Karma to Causality is a central motif in all schools of Hindu, Jain and Buddhist thought. The theory of karma as causality holds that the intentions and executed actions of an individual affects the individual and the life (s)he lives. Disinterested actions, or unintentional actions do not have the same positive or negative karmic effect, as interested and intentional actions..."
2. **Ethicization:** Paraphrasing from Wikipedia, "... This begins with the premise that every action has a consequence, which will come to fruition in either this or a future life. Thus, morally good acts will have positive consequences, whereas bad acts will produce negative results. An individual's present situation is thereby explained by reference to actions in his present or in previous lifetimes. Karma is not itself 'reward and punishment', but the law that produces consequence. Good karma is considered as *dharma* and leads to merit, while bad karma is considered *adharma* and leads to sin..."
3. **Rebirth:** Paraphrasing from Wikipedia, "... Rebirth is the concept that all life forms go through a cycle of reincarnation, that is a series of births and rebirths. The rebirths and consequent life may be in different realm, condition or form. The karma theories suggest that the realm, condition and form depends on the quality and quantity of karma. The cycle reach the realm of gods, those who don't continue in the cycle..."

1.2 Social Sciences - History Repeats Itself

However, there are other interpretations of Karma as well. Social Sciences, and particularly History, introduces a concept, *History repeats itself*, which, if perused, is a secular and academic interpretation of Karma. According to this, history is a record of periodic recurrence of similar events, in different space-time frames. Human actions create similar circumstances, thereby necessitating the repetition of actions or events of similar nature, in almost every time frame.

1.3 Mathematics - Standard Normal Distribution

Mathematics presents a probabilistic interpretation of Karma. In statistics, the probability distribution, *Standard Normal Distribution (Bell Curve)*, as displayed in Figure. 1, captures the behaviour of most of the events and situations in the universe (hence the name *normal*). The large sum of (small) random variables often turn out to be normally

distributed, contributing to its widespread application. Its validity is well proven.

Therefore, if natural and physical systems obey this distribution pattern, it is quite appropriate to assume that social systems (societies) can and do obey this distribution as well.

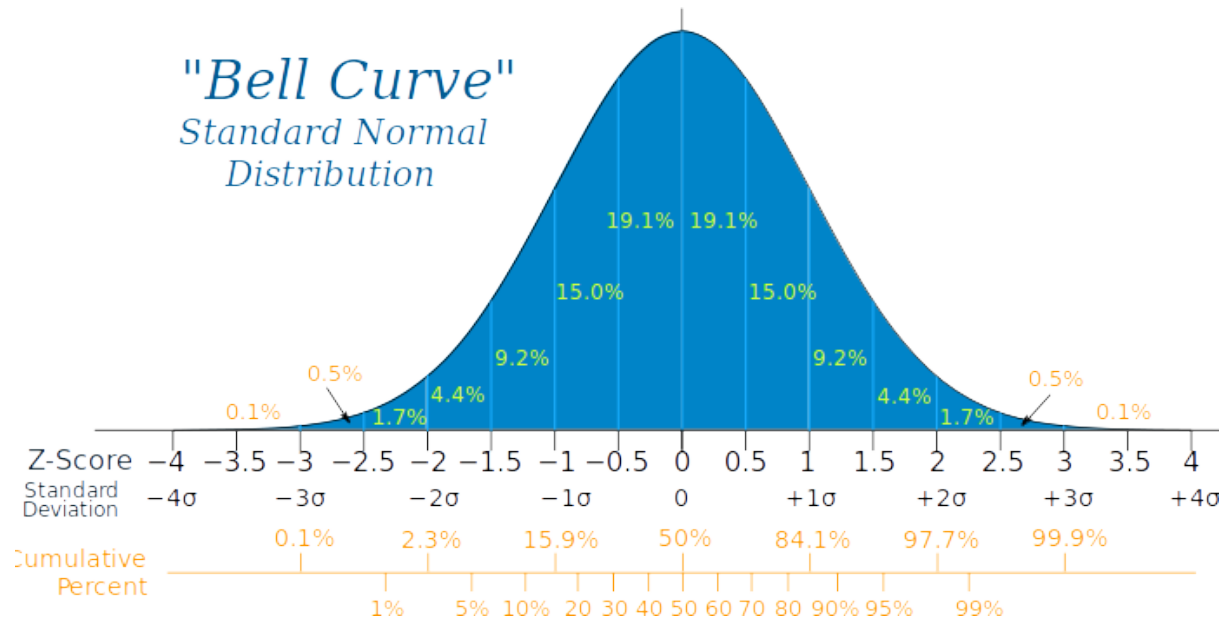


Figure 1: Standard Normal Distribution (Bell Curve)

2 Hypothesis

2.1 Action-Set and Standard Normal Distribution

Every action from every human to have ever lived, and every event which have occurred, since the dawn of human civilization together constitute a set of human social action. And every element (action) in this set has an associated probability, which influences its chances of occurrence and recurrence. When a person commits an action, and if the nature of that action is new (this is the case when society itself was being developed during the early stages of human civilization or when a person's action is foreign to an existing society), its added to this set, but if its already a part of the set (in case of repetitions), then the probability of that particular action increases, thereby increasing its chances of repetition and recipience.

Since this is a set, it is mathematically appropriate to apply the Bell Curve theory on this action-set. And since these actions have an associated probability, it is highly convenient to do so to extract distribution patterns of the actions (or rather their nature). Much of the actions that are normal, i.e., those whose event-points lie within the first or second standard deviations from the mean are those which have the highest probability and are most probable of occurring and recurring. Such *normal* actions are the most common among people. Most people, most of the time, will commit such actions, and consequently, will also be recipient of such actions. It is very much possible that, in reality, there might be multiple spikes, representing multiple actions (or nature). It all depends on the society, the spatial, temporal and many other factors.

Those actions which are rare to find, i.e., those which are extremes, are those whose event-points lie away from the mean. Therefore, those who commit these rare actions are also rare and consequently, people rarely are recipients of such rare actions. It must, however, be noted that I have taken a simple example of the distribution of human nature into three broad categories: Good, Normal and Bad. Reality is, however, different, with numerous and intricate combinations of these natures, thus resulting in a complex probability distribution.

Now, more an action is committed, more it drifts towards [a particular] mean, and this acts as progressive reinforcement. But, given that the normal events occupy the centre, it leads to the conclusion that such normal actions are the most probabilistic. Therefore, if every human action (event) is recorded and plotted, it should assume the shape of a Bell Curve, but of course with more than one mean. And each of these means can correspond to different societies, or different spatial and temporal situations, or interplay between many other factors.

2.2 Probability in Actions

Going by the human behaviour, any action encourages its repetition, which is a common occurrence in a(ny) group (group behaviour), under some circumstances. Kindness encourages kindness while hatred encourages hatred. Thus, any committed action increases its chances of being repeated, through any of the member of the human community/society, in any time frame. This leads to the statement, History repeats itself. The

nature of that event is passed on through family, friends and public dissemination, which is carried on through generations, which is the same as Karma.

According to Karma, when a person acts, (s)he is destined to be the recipient of a similar nature action in the future. If (s)he commits an (im)moral act, she is destined to be the recipient of the same in the future. Previously, I'd mentioned that once an action is committed its probability increases and so does the chances of its repetition. Therefore, any action triggers a chain reaction, wherein this action is likely to be repeated. The actor, among many others (who may or may not have committed a similar act in their past) become recipients of this very act. Thus, this probability, when viewed from an individual perspective, is ignorantly interpreted as Karma.

The initial occurrence of an action, or the *Original Sin*, so to speak, depends on multiple factors - roles, psychological, spatial, temporal, natural etc - which influence the initial probability itself. And when a society grows and evolves, its probability distribution evolves along with it. And at any instant in the social life history, the recurrence of an action/event depends on the existing probability of that action along with the various factors mentioned before.

There are no rare or normal actions initially. A rare action has an equal probability of recurring compared to the normal ones, if committed. And if and when they are committed, they do influence others, though unequally, to commit the same. However, their perpetuation and sustenance decays fast, which is dependent on the factors mentioned before, and people naturally drift towards the normal centre. And, given the rarity of such actions, the attitudes they represent are rarely retained. We do witness random acts of kindness, but rarely. However, if a normal act is committed, it doesn't demand much energy from the actor to sustain it or the attitude that accompanies with it. Therefore, the chances of it being committed, and people being recipients of it, is naturally increased, drifting more towards the centre [as in Figure. 1].

2.3 Probabilistic Actions and Karma

If a person commits a positive action, then no doubt it will be replicated by others, but its hard to sustain, unless there is a constant reinforcement. This is where the general social attitude matters. Each society naturally has a unique probability distribution. Over time, this external reinforcement might change the nature of the person itself. And therefore, there is also the case wherein, culturally, certain types of action might be more probable. However, given that it cannot be isolated from the world, it is bound to gradually decline.

Coupling this with Karma, if a benevolent/malevolent action, which has a probability associated with it and therefore necessitates its recurrence, although not as frequently as other normal actions, is committed, it will definitely be replicated by others, again, not as frequently. Therefore, in an action-set comprising a mixture of positive and negative actions, a person who has committed a positive action might be recipient of a negative action, i.e., they might not get what they deserves, and vice-versa. In the case when a person is the recipient of an action of a different nature than what they had committed before, people ignorantly and incorrectly regard it as *luck* and Karma. But, in fact it is

an **interplay of probability**.

Further, a person committing positive action is generally someone who is mature, responsible or simply a benevolent citizen. This inner alignment of values and morals is externally visible in their personality, their attitude towards others, and in their actions. Many a time, certain traits are mis-attributed. A completely neutral, or even an undeserving person is regarded as malevolent, or vice-versa, without a deep evaluation. In some cases, bad intentions are disguised as positive actions. These are the cases of false positive data instances. Therefore, considering all these mis-attributed events it can be concluded that even Karma is never accurate. A rare self-occurrence or self-repetition of an event doesn't prove its validity. It just proves that **Karma is probabilistic at best**; no one is destined to receive anything in return, especially in proportion to the nature of their actions and attitudes in their past. What one receives is a matter of probability of that action, at that particular instance of time and space.

Considering the large expanse of human and natural history, the actions and events, rather than their impact on the actors is important. An action when committed increases its chances of being repeated. An anti-state protest is a common example, which happens across the world, under different but similar circumstances. The surreptitious involvement of any non-state actors in instigating such protests isn't unusual either. Many contemporary nations are guilty of such clandestine activities, though they reject such accusations bluntly. Subservient activities are as old as human civilization itself, with it being available even in coded form (*Kautilya's Arthashastra*). Wars, protests, suppression etc. are events that are common in human history and hence have greater probability associated with them. Their next occurrence is not a matter of if, but when and where.

In the case of Climate change and Global warming, many small island nations face the threat of submersion, even though they had very little to contribute to this global catastrophe. And many large nations, which have the largest carbon footprint face very little consequences. There is a clear asymmetry between action and reaction.

In the case of majority-minority distinction, which is present in almost every society, is it the destiny of the minority to face gratuitous retribution at the hands of the majority, even if most of them aren't guilty of anything? What was their past Karma for having *deserved* this? This hatred and violence against the minority doesn't seem justified, because it isn't. Karma cannot justify such actions, unless there is a large-scale experiment which actually explores the previous lives of all the minority population, which corroborates the (mis)deeds (cause) of their previous lives with this state in their current life. This primarily happens because of an initial trigger and accumulation of probabilities that follows.

2.4 Karma and Reincarnation

Karma tries to make use of the concept of reincarnation and multiple lives. However, even considering the validity of the theory of reincarnation doesn't support karma strongly. Assuming that a person has committed crimes in their previous life, and that they are suffering in their current life, there is no strong and explicit causal relation between the two lives. Probability allows that a person is susceptible to negative actions, and more

an action is committed the probability of its repetition increases. I'm sure there are many others who have committed crimes in their previous lives but are leading happy or successful current lives. What does Karma tell about that? Because there isn't enough experimental evidence to verify such cases, there are large holes in the theory of Karma, which are so conveniently neglected.

My theory subsumes the known version of Karma. Once an action is committed, its probability of repetition increases, which implies that more people, including the actor, are susceptible, or *destined*, to be a recipient of a similar action in their future, irrespective of their previous deeds. I uncouple the action-reaction pair from the Karmic perspective - which is specific to, and dependent on the individual, her previous deeds and previous life even - and give it a socio-statistical perspective - which treats every person as equally or unequally as the probabilities allow. Nothing more. Nothing less. This is the Probabilistic Distribution of Human Actions, a subset of which is simplistically and ignorantly interpreted as Karma.

3 Social Experiments

3.1 Social Contagion of Ethnic Hostility - a case study

In a recent study [1] conducted in Europe among the Czech-Slovakia population, it was discovered that the decision of first time actor(s) largely influenced the behaviour of the successors. According to the research, hostility towards ethnic minorities is contagious and the acceptability of destructive behaviour towards them can easily change depending on others' behaviours. "Social norms regulating anti-social behaviour are very fragile if this behaviour is aimed at ethnic minorities," according to the researchers.

The study was conducted in eastern Slovakia, a district with a large Roma ethnic minority, in 2013, based on a game in which the players - 327 school children from the majority ethnic Slovak population aged 13 to 15 - first received 2 Euros each. Then they had to decide whether to pay 0.2 euros to reduce their rival's funds by half - a *destructive* choice - or whether to keep the payoffs unchanged - a *neutral* choice.

Next, in groups of three, they played against potential rivals represented by a list of 20 typical Slovak majority or Roma minority names, with all three players making their choice one after another. The hypothesis that susceptibility to follow peers becomes magnified when harm is done to ethnic out-group members compared with co-ethnics was tested. The results were striking - it pointed out a significant influence of peers in decision-making on doing harm to the minority. If the choice of the first child was peaceful or cordial towards the minority, only 19 per cent of the second decision-makers were hostile. But a total of 77 per cent of second decision-makers showed hostility if the first child to choose had been hostile. Among the third decision-makers, only 18 percent were destructive if one or both their predecessors were peaceful, but 88 percent were destructive if the previous two showed hostility. Besides, the participants saw hateful behaviour towards the Roma as more socially acceptable if somebody else treated the Roma with hate. The influence of prior decision-makers on the current ones becomes clear through this case study.

While this study is specific to the Slovak-Roma population, the majority-minority differentiation, however, isn't provincial. Universally, there is differentiation based on ethnicity, race, religion, sex, caste, etc. And, the basis of this study can be safely applied universally, while being confident of similar results. This study conveys two things:

1. Social identity determines, to a considerable extent, the actions that a person commits and reactions (s)he receives, irrespective of their previous deeds.
2. The more an action is committed, its chances of repetition also increases, more so by in-group members. A destructive behaviour encourages the same, and a positive behaviour encourages the same as well. While in this case the action was directed towards the out-group members, the in-group members are not completely immune to such behaviour. And consequently, the actor, along with many others are likely to be the recipients of such action.
3. Each social system has its own unique action-set and therefore a unique probability distribution of this action-set. There maybe more than one spikes, indicating multiple sub-groups.

3.2 The impact of Group membership on Cooperation and Norm Enforcement

This paper [2] reveals that group membership restricts the general set of nature that a person is exposed to, thus influencing their future actions accordingly. I had previously mentioned that the initial trigger is crucial, and this experiment demonstrates the same. All these social dynamics at play leads to variations in probability distributions of human nature. It also reveals certain points:

1. Member compatibility with the social structure is a large determinant in influencing the actions of the member, and those of others towards the member.
2. The group/social dynamics, which are dependent on various factors, leads to variations in probability
3. Influence and ripples of the actions one commits and reactions one receives depends not only on the group you interact with, but also the spatial and temporal variations.

The commission of actions of a particular nature is spatially and temporally distributed. So, when one acts, there is a probability which drives it, which varies. And since this world is intricately connected, one event influences the other, which contributes to the variations. So, there are a lot of variables that Karma doesn't consider, but simplifies the conclusion as "you get what you deserve", while disregarding the nuances of dynamics of these various factors - social, psychological, historical, etc.

This means that you will act how most others around you, act. Your actions are therefore probabilistic, and this probability is influenced by numerous factors mentioned before. So, in this simple experiment if they are able to elicit probabilistic behaviours, then consider this world, where the diversity is boundless. The probability distribution could vary so much, thereby leading to a myriad of actions. And, *one or more* of these actions happens to be of the form that Karma describes. But, there are many more possible actions which Karma fails to explain, or predict.

Karma is basically retrospective. It simplistically concludes from historical events, and its focus is especially on a reduced set. Merely saying that "you'll get what you deserve" isn't concrete. As this action which you "deserve" will have always have a probability of being repeated, it doesn't concretely validate Karma. This makes Karma probabilistic at best.

3.3 The Stanford Prison experiment

This [4] really was an interesting experiment.

The conclusion which I drew from it was that the initial distribution of nature depends on a reference/context - group membership, natural instinct, roles etc. This distribution can have a direct or reverse influence. The behaviour of the guards was influenced more by their *inverse peers*, the prisoners, and less by their own peers. In case of the prisoners it was both: the Ringleader and the guards.

The initial probability distribution of actions was dependent on the roles that they were randomly assigned. This brings in another important point, that the initial trigger is necessary. Of course, following the segregation, there wasn't much in-group influence, or there was, in a negative way (especially with respect to the prisoners). Further, this experiment was conducted in a high tensed environment, which made the direct/inverse influence more pronounced. Since the environment was highly vindictive in nature, highly charged, any action had pronounced ripples or repercussions, which compounds the probability, and the time frames in which repetitions occur are immediate rather than later.

The prevalent aura influences the behaviour of most (or all), thus creating a unique probability distribution for that system. In an environment its hard to be someone else of a radically different nature, or a deviant. May be one can, if (s)he doesn't manifest their thoughts or feelings, but keeps it inside, or manifests in an invisible/insignificant way. But, the probability distribution does account for this, as explained in the standard normal distribution. Your psychological state is largely influenced by the environment, and drives your actions, which has social significance, thereby increasing the probability of the nature of your actions.

4 Computational model for Simulation

Through implementation by way of programming, I plan to verify the presented theory that human actions and their consequences are bound by probability, which is the major determinant, given the personality and external conditions as variables. I've designed a modular agent-based artificial society, with three primary modules:

4.1 Actor: This module contains two programs:

4.1.1 Human

Human (actor,agent) is a program which mimics a real individual: It has a *Personality* (derivative of the Nature program), belongs to a *Group*, *Commits Actions*, resides at a *Spatial location* and is also capable of *Change* and *Replication* (Reproduction program). Using the personality and external environmental conditions as variable inputs, the list of possible future actions along with their probabilities can be determined. And all these actions triggers many more such possible actions.

A **Change in the Personality** occurs under following conditions:

1. *Interaction* with other Human programs: When a Human interacts - commits an action and becomes a recipient of another action - with other Human programs, the personality changes, subject to the Nature of the action(s) and whether its the Actor or Recipient.
2. The *Connections* a Human maintains, with other like-minded or opposite-Natured Human programs, also influences the Personality.
3. The *Philosophy and Nature* of the Group the Human is part of further also influences the Personality.

For easier interpretation, this is similar to new colours arising out of intermixing of RGB. The initial distribution of these personalities and their respective degrees is determined by an appropriate probability distribution function.

The **Reproduction** program in the *Action* module is triggered when two Human programs (although sex isn't specified in the Human program, it is assumed to be between a male and a female) mate (or merged in this case). I've taken into consideration the genetic progression of 50% traits from each of the parents, and the element of *mutation*.

Starting with a few thousands of such individual programs, an initial corpus of the action set can be generated. They will definitely be inaccurate initially, and will be far from resembling real human action-event set. But, upon continuous execution, following several generations, they might begin to converge on the real world scenarios.

4.1.2 Group

Group represents the Group a Human belongs to, which can be religious, political, etc. Each Group has a *Nature and Philosophy* (derivative of the Nature program), a *History*, *Muscle and political Power*, the degree of *Unity*, a *Leader* and list of members.

The **Nature** of the Group is a weighted average of its individual members. The **Philosophy** represent the core value(s) of the Group, and is influenced by its History. The **History** of the Group is a set of Events which provide a context to its Philosophy, and stands as a proof which (in)validates it.

A Group influences its members' Personality and their spatial distribution. It is assumed that most members tend to spatially converge towards their Group's centroid. Spatial and Personality proximity between the members of a group is assumed.

In the case of inter-group conflicts, the *Unity* and the *Muscle & Political powers* of each group determines the outcome of the event.

4.2 Action: This module contains four programs:

4.2.1 Action

Action captures the interaction between Human programs. It has a *Nature*, which defines it. An Action influences the Personalities of the actor and the recipient differently, subject to their individual personalities.

I also keep a count of the total number of committed actions, and probabilities of the 3 broad categories - Benevolence, Indifference and Malevolence (as explained under the Nature section - of Actions. These probabilities, in turn, provide an approximate estimate of the overall Nature of the society, since actions ultimately determine the trend of a society.

Now, once an action is committed, it is added to the event set, if not already present. If already present then the probability of the nature of that action increases. Once the event set is large enough, it should assume the shape of a Bell Curve, upon plotting. This can be corroborated with the real human historical data.

4.2.2 Connection

Connection is a program which builds links between Humans, who are similar in Nature. In [3], three classes of social influence models: *Assimilative Social Influence*, *Similarity based Influence* and *Repulsive Influence*, are explained. In the similarity biased influence model, only sufficiently similar individuals can connect, bond, influence and mate with each other. I've adopted this very model in my program.

4.2.3 Event

Event is a program which captures any Natural or Social events which might occur, or any historical events which have occurred, concerning a Group. The following Events can be represented by this program:

1. Events with **Malevolent or Indifferent** Nature:
 - (a) **Natural hazards** such as earthquakes, floods, cyclones, can be (and they actually are) linked to supernatural and superstitious elements, after which they can have social impact.
 - (b) **Social hazards** such as Indo-Pak partition genocide,

- (c) **Inter-group conflicts** such as Hindu-Muslim conflict in India, Jews-Muslim conflict in Jerusalem, Catholic-Protestant in Europe, Scientific-Religious conflict all over the world.
- (d) **Protests or Demonstrations** such as Feminism, Anti-corruption movement, LGBT movement.
- (e) **Revolutionary opposition** such as Marxism, Leninism, Maoism.

2. Events with **Benevolent** Nature:

- (a) **Positive developments:** The recent Indian Supreme Court verdict regarding IPC s. 377 was a positive event in the history of LGBT community in India. In 2014, when the Indian govt. declared the Jain community as a religious minority after decades of struggle, it was a win for Jains in India.

4.2.4 Reproduction

Reproduction is a program which captures the *action* of procreation between individuals and creation of new generations. Again, the nature must be similar in order to mate (adoption of *Similarity based Influence* model).

In the algorithm, I've ensured the 50% genetic transmission condition from each parent. Further, I've also included a *mutation algorithm*, which attempts at minor mutation in the traits, which are then passed onto the offspring.

4.3 Nature: This module contains two programs:

4.3.1 Nature

Nature: This program acts as a base for every other module, and the programs Human, Group, Event, Action, and History make use of an instance of Nature.

The Nature is classified into the following base dimensions, each of which approximately capture an aspect of the human/social nature. The Human's Personality, Group's Nature and Philosophy, Action's Nature, Event's Nature and History's Nature are all a derivative of these base dimensions:

1. **Dimension 1: Morality (1) and Immorality (0)** represent the two extreme ends of the spectrum of the *values* an individual, or a society, holds;
2. **Dimension 2: Integrity (1) and Fragility (0)** represent the will-power, commitment and internal strength of an individual;
3. **Dimension 3: Coexistence (1) and Survivalism (0)** represent the capacity of an individual or a society to *live and let live*; the degree of altruism and selfishness;
4. **Dimension 4: Rationality (1) and Irrationality (0)** represent the degree of logic/superstition, the open-mindedness of an individual or a society;

With these 4 base dimensions, there are 16 possible combinations of Nature:

1. **Morality, Integrity, Coexistence, Rationality - 1111**

2. Morality, Integrity, Coexistence, Irrationality - 1110
3. Morality, Integrity, Survivalism, Rationality - 1101
4. Morality, Integrity, Survivalism, Irrationality - 1100
5. Morality, Fragility, Coexistence, Rationality - 1011
6. Morality, Fragility, Coexistence, Irrationality - 1010
7. Morality, Fragility, Survivalism, Rationality - 1001
8. Morality, Fragility, Survivalism, Irrationality - 1000
9. Immorality, Integrity, Coexistence, Rationality - 0111
10. Immorality, Integrity, Coexistence, Irrationality - 0110
11. Immorality, Integrity, Survivalism, Rationality - 0101
12. Immorality, Integrity, Survivalism, Irrationality - 0100
13. Immorality, Fragility, Coexistence, Rationality - 0011
14. Immorality, Fragility, Coexistence, Irrationality - 0010
15. Immorality, Fragility, Survivalism, Rationality - 0001
16. Immorality, Fragility, Survivalism, Irrationality - 0000

These 16 combinations of Nature are then broadly classified into 3 categories: **Benevolence, Indifference and Malevolence**, which are colour coded with **Blue, Green and Red**, respectively, for easier interpretation:

1. **Benevolence (Blue)**: 1, 2, 5
2. **Indifference (Green)**: 3, 4, 6, 7, 8, 9, 13, 14
3. **Malevolence (Red)**: 10, 11, 12, 15, 16

4.3.2 History

History is a set of *Events* involving a Group, which influences its Philosophy.

5 Conclusion

To conclude, I aim at invalidating the existing notion of Karma, by subsuming it into my theory, in which, Karma happens to be just one among the many possible course of actions. I therefore provide a more comprehensive theory encompassing all possible factors that affect the occurrence and recurrence of an action, by and from a person.

As is evident through the experiments, the principle of Karma has large holes, and fails to provide valid, logical explanations to some widespread social or individual occurrences. The bottom line is Karma is NOT falsifiable. As mentioned before, among the many possible set of actions one or more happens to be the one(s) described by Karma. This doesn't make Karma right but probabilistic at best.

In my simulation, with varying initial conditions, the probability distribution graph of the action-set will probably assume different shapes, with more than one mean spikes. I can even set a custom initial environmental or societal condition, by altering the constants of the probability distribution function and derive custom simulations and distribution of the action-set.

Prof. Stephen Hawking, in the final chapter of his book, *The Grand Design*, explains the self-determinism of the human world with a simple example: Given an initial condition, with a certain set of laws, the organisms in it can self-generate. This means that there needn't be a supernatural balancing force such as Karma, which influences the actions and reactions of a person. Rather, each system, with its own unique initial set of laws and conditions, driven by self-determinism, can lead to its own unique set of action-set, and by extension, the probability distribution pattern. This would give us an understanding as to the parameters and conditions required to drive the real human world along desired paths, which, retrospectively, can help in human behaviour prediction.

References

- [1] Michael Bauer et al. “Social Contagion of Ethnic Hostility”. In: (2018).
- [2] Lorenz Goette, David Huffman, and Stephen Meier. “The impact of Group membership on Cooperation and Norm Enforcement”. In: (2006).
- [3] F LeRon Shults et al. “A Generative Model of the Mutual Escalation of Anxiety Between Religious Groups”. In: (2018).
- [4] Philip Zimbardo et al. “The Stanford Prison Experiment”. In: (1971).