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Why Hate: Analysis Based on Decision Theory

Olga Kosheleva and Vladik Kreinovich

Abstract At first glance, from the general decision-theory viewpoint, hate (and other negative feelings towards each other) makes no sense, since they decrease the utility (i.e., crudely speaking, level of happiness) of the person who experiences these feelings. Our detailed analysis shows that there are situations when such negative feelings make perfect sense: namely, when you have a large group of people almost all of whom are objectively unhappy. In such situations – e.g., on the battlefield – negative feelings help keep their spirits high in spite of the harsh situation. This explanation leads to recommendations on how to decrease the amount of negative feelings.

1 Formulation of the Problem

What is hate. From the decision making viewpoint, hate is:

- when person i gets positive emotions from person j 's unhappiness and
- when person i gets negative emotions from person j 's happiness.

How hate can be described in numerical terms. According to decision theory, consistent decision making can be equivalently reformulated as maximizing the expected value of a certain quantity u called *utility*; see, e.g., see, e.g., [5, 6, 9, 10, 11, 12, 13]. Crudely speaking, utility of an alternative describes to what extent a person is happy or unhappy about this particular alternative.

How can we describe emotions in utility terms? The decision theory approach to this problem – pioneered by a Nobel Prize winner Gary Becker – is described, e.g., in [1, 2, 3, 4, 7, 8, 11, 14, 15, 16]. The main idea of this approach is as follows.

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A significant portion of a person's happiness or unhappiness is determined by his/her objective situation: whether he/she is fed or hungry, rich or poor, healthy or sick. Let us denote the part of the i -th person's utility determined by this person's objective situation by $u_i^{(0)}$.

A person's happiness is determined not only by the objective circumstances, but also by the happiness of others.

- It is difficult to be happy when many people around you are suffering.
- Vice versa, on a happy occasion when your friends get married or have a baby, you feel somewhat happier too.

In general, the resulting utility u_i is determined both:

- by the objective utility $u_i^{(0)}$ and
- by the objective utilities of others $u_j^{(0)}, \dots$:

$$u_i = f(u_i^{(0)}, u_j^{(0)}, \dots),$$

for some function f .

The effect of others' emotions is usually smaller than the effect of objective circumstances (unless you are talking about a saint who does not care about his/her own good and only cares about others). In this sense, the effect of others' objective utilities $u_j^{(0)}, \dots$ on the utility u_i is reasonable small. Since this effect is small, we can do the usual trick of dealing with small influences: namely, we can expand f in Taylor series in terms of $u_j^{(0)}, \dots$, and keep only linear terms in this expansion. As a result, we get the following formula:

$$u_i = u_i^{(0)} + a_{ij} \cdot u_j^{(0)} + \dots, \quad (1)$$

where the coefficient a_{ij} describes the person i -th attitude towards person j .

- When the coefficient a_{ij} is positive, this means that the happier person j , the happier will person i be. In other words, the positive values of this coefficient correspond to love, friendliness, care, and other positive emotions.
- On the other hand, when the coefficient a_{ij} is negative, this means that the happier person j , the less happy will person i be, and, vice versa, the more unhappy person j , the happier person i will be. In other words, the negative values of this coefficient correspond to hate and other negative emotions.

Resulting problem. As we have mentioned, people tend to maximize their happiness, i.e., in utility terms, maximize their utility. If two people are reasonably happy, i.e., if $u_i^{(0)} > 0$ and $u_j^{(0)} > 0$, then, according to the formula (1), adding negative emotions can only decrease their emotion.

From this viewpoint, we should not be experiencing negative emotions towards each other – but negative emotions, including hate, have been ubiquitous throughout history.

So why hate? What is benefit of having negative feelings towards others?

2 Analysis of the Problem, the Resulting Explanation, and Recommendations

When hate makes sense: analysis of the problem. Person i wants to increase his/her happiness, in particular, by selecting appropriate values a_{ij} .

- According to the formula (1), when the objective utility $u_j^{(0)}$ of another person is positive, to increase his/her utility, person i should have positive feelings towards person j . In this situation, indeed, negative feelings $a_{ij} < 0$ make no sense.
- The only case when it makes sense to have negative feelings towards person j is when person j 's objective utility $u_j^{(0)}$ is negative. In this case, indeed, having a negative attitude $a_{ij} < 0$ will increase the utility u_i of the i -th person.

So, *hate* – to be more precise, negative feelings – *makes sense only towards people who are unhappy*.

Do we really have negative feelings towards unhappy people? One may ask: why would we have negative feelings towards an unhappy person – e.g., a person who is poor and/or sick? When, if person is blameless, it is indeed difficult to imagine hating him/her. But nobody's perfect, we all make mistakes. For the case of a poor and/or sick person these mistakes – drugs, alcohol, crime – may have contributed to his/her current conditions. The resulting negative feelings sound justified, but these are exactly the feelings described by the above analysis: negative feelings towards someone who is already unhappy.

When is hate possible? When it is (practically) necessary? If a person i is surrounded both by happy and unhappy people, then this person can increase his/her utility

- either by expressing positive emotions towards happy people
- or by expressing negative emotions towards unhappy people,
- or by doing both.

In such a situation, while hate is possible, it is not necessary: we can increase our utility by being positive towards happy people and neutral towards unhappy ones.

The only case when negative feeling become necessary is when a person is surrounded only by unhappy people. In this case, the only way to increase your own happiness is to have negative feelings towards others – at least some others.

Examples of such situations. Let us give some examples of such situations when negative feelings are practically necessary.

- A classical example is war. In a war, soldiers on both sides are objectively unhappy – but the fact that they have strong negative feelings towards soldiers from the other side make their lives worth living.
- Another example is criminals sitting in jails – especially in overcrowded jails in the poor countries: they are often divided into gangs that hate each other.

- Yet another example is citizens of a poor multi-ethnic state. Objectively, practically all of them are poor and thus objectively unhappy. The only way to increase their happiness is to start having negative feelings towards each other.

In the last example, sometimes, such feelings are encouraged by the oppressors – the divide and conquer policy followed by all empires starting with the ancient Rome (and probably even earlier), to prevent poor people from fighting together against their oppressors. But even without the oppressors, such attitude is, unfortunately, frequent.

Recommendations. How can we eliminate hate and other negative feelings – or at least make them less frequent?

Based on the above conclusions, the best strategy is to make people objectively happier – this will make hatred counterproductive and thus, hopefully, eliminated.

While this noble goal is being pursued, a natural intermediate solution is:

- to avoid situations when objectively unhappy people only communicate with each other: have mixed neighborhoods, have mixed schools – this will make hate and other negative feelings unnecessary, and also
- to teach people positive feelings – this will hopefully decrease the spread of still-possible negative feelings.

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