**Setting up**

Assuming an event  ,  probability that  will have happen, and  probability that  will happen. If  happens, subjects will lose  proportion of their money (which means the more money they have, the more they will lose), otherwise nothing will lose.

Insurance: each unit of insurance will cost , each unit of insurance will compensate  percent of loss if the even happens to them. At the begeining of each perido, subjects wil be endowed with unit of money.

Thus, for this design, subjects need to trade off between how much money they want to pay for potential loss and how much they is possible to loss if the event happens to them. Simply, the more money they put into the insurance , the fewer they will loss if the event happens; while the fewer money thet put into the insuance, they need to suffer more potential loss. All the trade-off is determined by the probability of the event.

Deicison: subjects need to maximize the function



Then the optimal decision should be：

Clearly, the optimal value is determined by the first term  ( the second term wil be fixed in our experiment).

For this case, subjects can infer the wether the event happened to other subjects by how many unites others have bought and the current finance status.

For example, if a suject  bought  unit of insurance in last period, and only have  unit of money after one period. Then we can know, if the event did not happen, he should have .Thus, if  event happened to them, otherwise it did not.

For most herding behavior, they assumes that other’s decision deliver the information. Above case, subjects can infer the information but requires further step thinking. Then, we could have another session where the initial endowment of each subject will become different. So subjects can not infer any information from other subjects’ decision and the final financial results.

**The decision making rule**

Thinking about how people will do ?

Type 1 : updating their choice and belief according to the scentific information and presumbally, we hope subjects will converege to the optimal decision at the end;

Type 2: simply copying others’ decision according to papulairty, i.e. browsing which decision has been made by most people, then follow their choice;

Type 3: following richest subjects’ behavior, i.e. subjects follow one subjects’ decision who has highest remaining money. Because subject may naturally think they have better strategy so that they can have more money. Thinking about this case, it would be very interesting .

At the beginning, some subjects happen to be lucky, and they have better finance performance. Then other subjects think he must be good at making decision. Then, some subjects begin to follow this subjects, latter on, more subjects follow similar decision as most people have made similar decisions. We can creat a simulation for this. It would be interesting to see if subject become extremly lucky, what he influences others.

Type 4: confimration bias – i.e. applying minimum distance principle. Subjects observe others’ decision and only pay attention to similar decisions. In our experiment, the decision space is not binary, i.e. it could be 1 to 10 if the *k* is 0.1. Thus, subjects observe most similar decision and update their decisions accoring to minmum distance.