Survey\_2014

We are investigating the question of what makes a good forecaster. We would be extremely grateful if you would complete this survey. It should take about 30-40 minutes. In this survey, you will encounter a variety of different questions and tasks:   Questions that concern the interpretation of verbal expressions of uncertainty. A simulated 'Espionage Game' in which you must gather information to defend your base against an unknown enemy. Questions concerning generalized numerical estimation. Questions related to risk-attitudes across different decision contexts. Questions related to decision making in hypothetical medical scenarios. A task in which you will be asked to gather information concerning the causes of several hypothetical events. We know some of the questions may appear odd, but they were written to measure variables that help us explain what makes a good forecaster. We appreciate your thoughtful responses. We'll give you a full debriefing after the data are collected. Thank you again! Barbara Mellers & The Good Judgment Team

For the next five questions, you will be asked to provide your beliefs about various verbal statements of uncertainty. For each item, please imagine that you are reading an intelligence report, and that you have come across the presented statement, exactly as it appears on the screen. Your task is to assign numerical probabilities to each statement, reflecting three characteristics of the statement's intended meaning:   The lowest plausible interpretation of the statement as a numerical probability; The highest plausible interpretation of the statement as a numerical probability; And the best interpretation of the statement as a numerical probability. There are no right or wrong answers. We are simply interested in your personal opinions. We'll give you a practice question to make sure you've got the hang of it.

Practice Question Please imagine you are reading an intelligence report, and you come across the following statement: "It is improbable that Edward Snowden will return to the United States before 2016."

\_\_\_\_\_\_ Use this slider to indicate the lowest plausible interpretation of this statement as a numerical probability

\_\_\_\_\_\_ Use this slider to indicate the best interpretation of this statement as a numerical probability

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* Got it. I understand how to answer these questions.

Please imagine you are reading an intelligence report, and you come across the following statement: "It is almost impossible that China will seize control of the Second Thomas Shoal in the South China Sea before the end of 2014."

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Please imagine you are reading an intelligence report, and you come across the following statement: "It is possible that the kidnapped girls in Nigeria will be brought back alive before the end of 2014."

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Please imagine you are reading an intelligence report, and you come across the following statement: "It is doubtful that North Korea will conduct a new multistage rocket or missile launch before September, 2014."

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Please imagine you are reading an intelligence report, and you come across the following statement: "It is likely that China's annual GDP growth rate will be less than 7.0% in the first fiscal quarter of 2015."

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Please imagine you are reading an intelligence report, and you come across the following statement: "It is almost certain that Russian armed forces will invade or enter East Ukraine before October, 2014."

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The next five questions will look very similar to the five you just answered, but they are different in an important way. For the next five questions, please provide your personal opinion about the probability of each of the items presented.

What is the probability that China will seize control of the Second Thomas Shoal in the South China Sea before the end of 2014?

\_\_\_\_\_\_ Use this slider to indicate your personal opinion

What is the probability that the kidnapped girls in Nigeria will be brought back alive before the end of 2014?

\_\_\_\_\_\_ Use this slider to indicate your personal opinion.

What is the probability that North Korea will conduct a new multistage rocket or missile launch before September, 2014?

\_\_\_\_\_\_ Use this slider to indicate your personal opinion.

What is the probability that China's annual GDP growth rate will be less than 7.0% in the first fiscal quarter of 2015?

\_\_\_\_\_\_ Use this slider to indicate your personal opinion.

What is the probability that Russian armed forces will invade or enter East Ukraine before October, 2014?

\_\_\_\_\_\_ Use this slider to indicate your personal opinion.

For the next part of the experiment, you will be playing a game designed to simulate international espionage. In this game, imagine you have intercepted an encoded radio transmission from one of two possible opposing teams—the Red Team or the Blue Team— indicating that a missile strike will be launched against your home base within the hour. The fighter jets under your command can successfully neutralize this attack, but only if you are able to correctly determine which opposing team has ordered the strike. One method you could use to try to determine this would be to compare the characteristics and content of the intercepted message with what is known about the history of transmissions sent by the two opposing teams. Some of this information is readily available to you, and some you can gain by hacking into the computer systems of the Red and Blue teams. To avoid detection, however, you will only be able to steal a limited amount of information from the opposing teams. More detailed instructions will be provided on the following pages. It is essential to your success that you read and follow the instructions on each of the following pages carefully. Good Luck!

Please take careful note of the following information, but do not worry about memorizing it. Relevant information will be available to you as needed throughout this section of the experiment.

Transmission history of the opposing teams in the past 24 hours: The Red Team has sent 1000 messages in the past 24 hours. The Blue Team has sent 1000 messages in the past 24 hours.

Characteristics of the intercepted message: Note: For each characteristic, there are only two possible choices. The alternative choice is listed in parentheses '()'

1) The message was encoded using the Alpha cipher (not the Omega cipher).

2) The message was transmitted using a Low frequency (not a High frequency).

Hacking into the Red and Blue Teams' Computer Systems   You will now have the opportunity to gather information about the radio transmissions sent by the Red and the Blue teams in the last 24 hours. To do so, you may hack into the opposing team's computer networks and steal any two of the four available data-logs by clicking on the appropriate buttons on the next page. There are two types of information contained in these logs: the type of cipher used to encode each outgoing message (the Alpha cipher vs. the Omega cipher), and the frequency band in which each message was sent (low frequency vs. high frequency).  For simplicity, each computer log-file is summarized by two percentages that represent the proportion of messages from the last 24 hours that fall into each category. To steal the information from these files, simply click on the appropriate button. To avoid detection, however, you may only look at two of the four files. Choose wisely!

p(Alpha | Red) and p(Omega | Red) p(Alpha | Blue) and p(Omega | Blue)

p(Low | Red) and p(High | Red) p(Low | Blue) and p(High | Blue)

Which opposing team do you think ordered the missile strike on your base?

* The Red Team
* The Blue Team

The next questions will ask you to estimate numerical quantities related to future events. For each question please provide your best estimate of the quantity described. There are no right or wrong answers, we are simply interested in your personal opinions.

For the next two questions, you will take on the role of a physician and be asked to make

decisions regarding hypothetical medical scenarios. Your task will be to choose the course of action that you feel is best. For each scenario, you will be given information regarding the symptoms and history of a patient with an unidentified illness. You will then be given the opportunity to perform certain tests to aid in your diagnosis.  In all cases, whether you perform the tests or not, you will always treat the most likely disease. More detailed information will be given on the following pages. Please read these pages carefully and answer the questions that follow.

A patient has a .8 probability of having Chamber-of-Commerce disease and a .2 probability of Elk’s disease. (He surely has one or the other.) A tetherscopic examination yields a positive result in 90% of patients with Chamber-of-Commerce disease and in 20% of patients without it (including those with some other  disease). An intraocular smear yields a positive result in 90% of patients with Elk’s disease and in 10% of patients without it.

If you could do only one of these tests, which would it be?

* Tetherscopic Examination
* Intraocular Smear

Please briefly explain how you arrived at your answer.

A patient is presenting symptoms and a history that suggest a diagnosis of globoma, with about .8 probability. If it isn’t globoma, it’s either popitis or flapemia. Each disease has its own treatment, which is ineffective against the other two diseases. A test called the ET scan would certainly yield a positive result if the patient had popitis, and a negative result if she has flapemia. If the patient has globoma, a positive and negative result are equally likely.

If the ET scan were the only test you could do, should you do it?

* Yes
* No

Please briefly explain how you arrived at your answer.