Seminar 8 - Mood Induction Experiments

Question 1: Briefly describe the procedures commonly used to induce mood in the laboratory

Various methods used (see slide 4, mixtures of these might be useful):

• Imagination: Participants are asked to imagine specific situations or circumstances from their lives (e.g. past experiences) that would bring out the desired mood for the experiment being run.

• Velten MIP: Many statements that describe either positive or negative self-evaluations or somatic states are presented. Subjects are instructed to try and simulate the mood described in these statements:

http://www.wellbeingwizard.com/index.php?option=com_content&task=view&id=503&Itemid=98)

• Film/Story – Example: Happiness and productivity study. Participants are asked to watch a movie/ read an article which is associated with some sort of feeling.

• Music – Example: death metal?/I would get really pissed with stuff like Kings of Leon…probably important to try and cater for people's preferences…?

• Feedback – both positive and negative.

• Social Interaction: Participants are exposed to particular social interactions that are arranged by the experimenter – Example: the female interviewer on the bridge study. The idea about the bridge was that the fact that it was swaying meant that people re-interpret fear as being in love? But not often the case? Here the situation on the bridge was the experimental treatment.

The idea here is that the social interaction can help manipulate someone's mood. Another example is the famous Milgram experiment on obedience to authority where in some treatments a collaborator was used to introduce a particular environment to the situation: e.g. disapproval/ agreement.

• Gift – Example: happiness and productivity; chocolate and fruit.

Idea is that gifts create positive feelings (especially amongst people whom enjoy them). Need to be careful in selecting gifts that people will actually enjoy.

• Manipulate Facial Expression: Subjects are instructed on how to contract and relax different facial muscles to produce a frown, a smile or a neutral face

Comments:

Emotions/moods here are assumed to have simple structure: positive/negative. However, they are often multi-dimensional. E.g. An article about violence/negative feedback may induce negative emotions like: Anger/Disappointment/Sadness. Different emotions may result in different responses (anger vs sadness?), so it may be important to be more specific here. So, one should be careful about this and refer to the literature where necessary.

Experimentally, one usually will follow up these inducements with checks on whether they indeed worked. Usually these involve point scale questions (How would you rate your happiness at the moment?). There are many questions specific to measuring particular emotions, so if we are facing the problem above, one might want to have several questions for each?

Question 2: Prior to seeing the results from Oswald, Proto & Sgroi (2015) discussed in lectures, what would you say might be the expected sign in the relationship between happiness and productivity?

Here, we are looking at the causal relation between happiness and productivity, not just correlations. If we just look at observational data, we might have reverse causality: more productive people might be happier because they earn more!

Happiness and productivity could be related in two ways:

• Positive: the happier an individual is, the more energetic they would be and hence more productive. Some theories/evidence related to this is with regards to psychological load in poor individuals having negative effects on their decision-making outcomes. (This could be conceived as being related to unhappiness.)

• Negative: as individuals become happier they become more distracted, i.e. less focused and hence end up being less productive

Research in this area is this more exploratory in nature: no clear hypotheses?

Could be non-monotonic in nature as well? When mental resources are scare, increasing happiness/ reducing worries would result in the first effect dominating (lifting of constraints). When one is already happy, giving too much positive stimulus would instead cause the second effect to dominate (not much mental constraints to lift).

Question 3: Why did Oswald, Proto & Sgroi (2015) validate their results by using a real-life shock?

In the laboratory you can only influence mood (hence short-term happiness). In order to analyse the effect of the long-term happiness the "bad life event" experiment was necessary (this made use of shocks related to serious illness/bereavement in the family).

We have seen that mood or short-term happiness may have impacts on behaviour, but these may be temporary. It does not necessarily imply that if it were sustained, we will have continued impacts (for example, short term increases in consumption raise happiness, but we get used to them; perhaps in the same way we get used to unhappiness?) It is thus more important to verify that the same effects result from long term happiness as well: more policy implications, easier to convince others.

Question 4: Why did Oswald, Proto & Sgroi (2015) prefer to use a "bad life event" rather than a "good life event" in order to analyse the effect of a shock on productivity in the long run?

The assumption that the shock is exogenous is perhaps more plausible for a bad life event. (Illness?) If one tries to think of most good life events these are generally due to better choices or decisions made. Here, they use deaths/ illnesses in the family which are arguably exogeneous to some extent. This empirical element is used as a complement to their lab study.

Issues: Are these bad life events really exogenous? Perhaps families with higher probabilities of serious illness have lower income levels and this is correlated with motivations/ability/ productivity?

Question 5: Why did Kirchsteiger, Rigotti and Rustichini (2006) conclude that subjects in a better mood are more generous, while those in a bad mood reciprocate more?

Kirchsteiger et al. (2005) have their subjects play a gift-exchange game where they induce either positive or negative moods. Slight variation to gift-exchange game we covered last time:

- In the first stage first movers are randomly matched with second movers to transfer money – compared to the auction stage in Fehr et al. (1993). Here there is this no competition between employers.
- The second mover's payoff: $P_2(t, e) = t - c(e)$

e	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$c(e)$	0	0.2	0.4	0.8	1.2	1.6	2.0	2.4	3.0	3.6

There are two roles, player 1 (employer) and player 2 (employee); only the second player is treated using the mood induction. This is important to ensure that the spread of offered wages is the same in the two treatments.

i.e. compared to Fehr et al. (1993), there's no fixed cost when being employed, i.e. matched. Follows naturally given the absence of the auction stage.

NE: $t = 0, e = 0.1$

Mood induction:

Bad Mood: 5 minute clip from Schindler's List, watched scene known as 'liquidation of Krakow ghetto', which shows the Nazi troops ejecting families from their home, making prisoners and killing people.

Good Mood: 5 minute clip from City Lights, watched scene known as 'boxing fight', which is a hilarious episode with Charlie Chaplin dancing around the ring to avoid punches of his opponent.

They then asked participants how they felt: 1: extremely happy, in a good mood; 8: Extremely unhappy in a really bad mood. This is used to check whether their treatment has worked. Notice the effort in making general characteristics of the clips similar: elapsed time. This is to prevent arguments based on differing levels of fatigue/rest.

Results (See graph): In the good mood treatment, subjects pass more without conditioning to effort. In the bad mood treatment, subjects react more to effort.

Basically, they find that good mood raises unconditional levels of reciprocity, but reduces sensitivity to the transfers of the first mover. Because transfers were high in general, this meant that bad mood treatments resulted in more reciprocity. In fact, there is evidence that first movers react to this by transferring more. A theory for this might involve 2 different channels: a social preference versus cognitive channel. Being in a good mood, while raising altruistic concerns say, may cause one to think more in terms of oneself (less empathic?). Here the second channel outweighs the first.

This shows that these kinds of social preferences generosity and reciprocity can be pliable in different ways to emotions possibly due to the different contexts behind them.
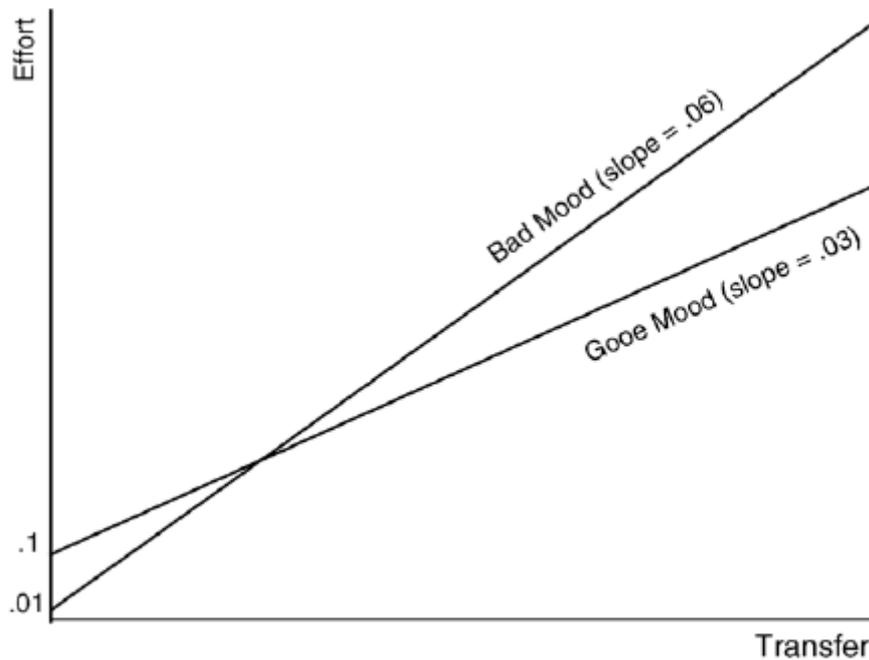

Fig. 1. Relationship between effort and transfer by mood.

Question 6: Briefly describe the experiment of Guiso, Sapienza and Zingales (2013) on risk aversion, including your own thoughts on their mood induction procedure and their results.

The paper involved two different parts: survey and experiment.

Guiso et al. (2014wp) test whether investors' risk aversion increases following the 2008 financial crisis. They do so using a repeated survey of an Italian bank's clients and find that both qualitative and quantitative measures of risk aversion increase substantially after the crisis.

Risk aversion measures

I. Qualitative indicator of risk tolerance – patterned after a question in US Survey of Consumer Finance: *Which of the following statements comes closest to the amount of financial risk that you are willing to take when you make your financial investment?*

1) A very high return, with a very high risk of losing money

2) High return and high risk

3) Moderate return and moderate risk

4) Low return and no risk

II. Quantitative indicator of risk tolerance – framed to resemble Deal or no Deal game which has similar flavour to Holt and Laury task: *Imagine being in a room. To get out you have two doors. Behind one of the two doors there is a 10,000 euro prize, behind the other nothing. Alternatively, you can get out from the service door and win a known amount. If you were offered 100 euros, would you choose the service door?* Repeated the question until accepted certain amount to find certainty equivalence.

Amounts: (100, 500, 1500, 3000, 4000, 5000, 5500, 7000, 9000 and more than 9000).

They find that there is an increase in both measures of risk aversion after the crisis and this is found not to be due to age and wealth effects. Changes in perceived probability distribution is not related to changes in risk aversion (especially in the quantitative measure); increased ambiguity is related to changes in the qualitative, but not the quantitative measure. Also, people whom do not experience any losses have higher risk aversion (qualitative) as well. (this could suggest contagion).

Thus, there seem to be some spillover effects due to the financial crisis that are not related to economic fundamentals. They claim that this is consistent with an emotional response to the crisis where fear may alter people's risk decisions. *" The terrifying news appearing on television, the interaction with friends who lost money in the market, or the pictures of fired people leaving their failed banks might have triggered an emotional response."*

To test whether the increase in risk aversion is indeed an emotional response triggered by a scary experience they conduct a lab experiment. Participants were either allocated to treatment or control groups. In the treatment group, fear was induced by playing a 5 minute clip for the

horror movie 'Hostel'. It showed a young man inhumanely tortured in a dark basement. Because of the graphic nature of the clip that could disturb subjects, participants were given the option to skip the video at any moment. Those that skipped the video in the first minute are dropped from the sample as they did not experience enough horror. *This could potentially underestimate the effect of the treatment as those most sensitive to the treatment dropped out.* Also dropped those that had watched the clip before as the perceived effect could potentially be different for them. Thus, we may have some selection bias effects.

Results: Treated subjects exhibit higher risk aversion (both according to the quantitative and the qualitative measure). The treated subjects' risk premium is $672 (27%) higher than the untreated ones. *Interesting note: students who reported to like horror movies seemed to be unaffected, only those reporting to dislike horror movies were affected. If individuals whom like horror movies experience less fear, or perhaps have positive feelings (excitement?), then this would be consistent with them not showing higher risk aversion.*

Point to note: is fear from horror movies the same emotion as that from the financial crisis?