# A Theory of Micro Economic Behaviour

"The first draft of anything is shit." February 6, 2023

#### 0.1 Context

There pretext of this document is as follows. Human behaviour as well as economics is difficult to predict due to factors such as scale, human variability in physical terms as well as the subjective nature of each individual. However at scale a model that can predict behaviour of the average individual is sufficient to use. The goal being that this could be used to understand and optimise ones own situation as well as attempt to forecast the short term future.

## 0.2 Assertions

The theory rests on the bases if these assertions;

- 1. That effort can be defined in this context as the the total integration of pain/pleasure that the subject experiences over a duration of time.
- 2. That when a subject is presented with an opportunity of voluntary exchange that they will choose the option that minimises their own net effort.

However since each person has different predispositions to what activities they like or don't like the amount of effort that should be attributed to that activity differs person to person. Since subjects are all unique it would be inappropriate make value proportional to simply the net effort associated with a good or service, as tempting as *that* may be. Instead metrics of effort can only be used for comparing the same subject.

Using these assumptions a model can be contracted. For instance the value of an itom

made entirely by hand from a manufacturer, expludin the use of tools is the from the persepective of the producer to provide it to the providor and less than that of the next best opton to the recipiant.

When given the chance people will make volontary exchanges in order to reduce their total effort output. This exchange will be made if the option is of lower net effort than the next best option. People tend to arange all economic activity in turms of effort.

Efficiently: typically in engineering no system can have an efficiency of more than 1, however in this context the e acts as a coefficient of the  $(\delta voutput)/(\delta vinput)$ . As sometimes storing things can add to the value it is possible to get more pleasure from it than was put in.

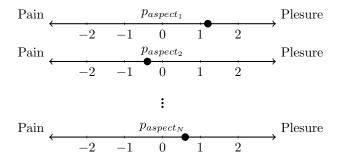
That there are only labour costs and nothing else. For example take any product or service, the price is defined as only the total of all labour costs associated with the product. in manufacturing a product is often broken down into labour costs and non-labour costs. Non-lobar costs often include materials, parts, tools, tool ware, tool depreciation and transport costs. I would like to assert that this may be true of the current level of manufacturing but not true when considering all layers of production. from example a product that is the

comprised of a raw material and labour can be expressed as the sum of the labour of that processes as well as the labour involved in extracting and transporting the raw material.

All claims made with respect to trading assume a free market.

# **0.3** Definition of effort denoted by $\rho$ , $\varphi$ , P

at a fundamental level human interaction can be ranked on a scale of pleasure and pain. Henceforth denoted as  $\rho$ . This can be used to describe the pleasure of an event at an instant in time. similar to the concept of black body radiation the idea of there being a value of  $\rho$  is absolute and is the identical scale between people. What does not remain constant is that two people may have two values of  $\rho$  for the same activity as it's level of effect varies subjectively



The total of all pleasure and pain that an individual is experiencing at any one time is P where:

$$P = \sum \rho \tag{1}$$

A scale of attributed pleasure value  $\rho$  integrated over the time of an activity can be defined as the sum of the integrated change in pleasure with respect to that activity:

$$\varphi = \sum \int \Delta \rho \, dt \tag{2}$$

This can be thought of as a fundamental store input of value. Not necessarily the output of value ether. Since the exact scale of value for each individual is not represented in a standardised format translatable to another The effective of 'value'  $(\varphi)$ . An efficient can only be meaningful in the context of the individual's 'value' spent to that of the potential 'value' returned.

$$\eta = \frac{\varphi_{potentualOutput}}{\varphi_{input}} \tag{3}$$

This value is not limited to the traditional domain of [0,1], instead being capable of residing at > 1.

#### 0.4 Individual trade-off

An individual will (generally) opt to choose the option at any time that is has the most  $\varphi$ , such as doing option a or not doing option a. When ignoring time delay factors a trade for a can be expressed as:

$$\varphi_{option} > \varphi_{alternative}$$
(4)

However when time difference is relevant, the pleasure and pain become subject to the expected or anticipated  $\varphi$ . Notice that the factors subject to time also has an effect in relation to the decision to make a trade.

$$\varphi_{anticipated} + \varphi_{timeSubdugation} > \varphi_{alternative}$$
 (5)

# 0.5 Exchanges

The first assumption that must be made here is that the individual scaling of  $\rho$  remain independent from both parties exchanging any form of effort. If person one (p1) and person two (p2) each *perceive* the exchange as being the higher  $\varphi$  it in therefore deemed in each of their own individual interests.

$$(\varphi_{p1,trade} > \varphi_{p1,noTrade}) \cup (\varphi_{p2,trade} > \varphi_{p2,noTrade}) \tag{6}$$

when given options of trades people will choose the option that has the highest increment of  $\varphi$ 

$$rows$$
 (7)

- 0.6 Methodology of Analysis
- 0.7 Trade and Exchange
- 0.8 Time Dependant Problems
- 0.9 Probability Dependant Problems
- 0.10 Examples in Business
- 0.11 Examples in Marketing

## 0.12 Governance and Involuntary Trading

This section attempts to discuss the effects that non consensual trade (in the context of this paper) that is implicit in the role of government.

## 0.13 Ethics

Perhaps it is appropriate to include a section on the ethics of the types of dynamics at play discusses in these chapters. This is subject to the perspective

of the reader as it is not uncommon for people to perceive situations in entirely different terms particularly when terms such as involuntary. However the perspective that this document seeks to put forward can shed some light on ethical conundrums.

A criticism often levelled at ideologies that favour free trade or in more general terms larger degrees of purely voluntary exchange, is that advertising has a negative effect on the