

Master thesis on adaptation

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1 Introduction

”Adaptation provides the serenity to accept the things one cannot change, the courage to change the things one can, and the wisdom to know the difference.” FL,1999

2 Adaptation theory and research

While the academic study of adaptation is stemming from halfway the 20th century, the topic of relative happiness and wellbeing goes at least as far back as the Epicurean and Stoic philosophers of ancient Greece. Moreover, the idea that human levels of happiness return to a relatively stable baseline after experiencing major positive or negative (life) events was subsequently picked up by writers like St Augustine in the 1600’s and finally evolved into psychological theories of adaptation in the 20th century. Hence, the construct of adaptation is not exactly new, but the empirical evidence for the occurrence of adaptation is ambiguous and the extent of the adaptation is not well studied and highly debated (Oswald & Powdthavee, 2008; Frederick & Loewenstein, 1999). A review of the empirical evidence for adaptation follows below, but first a definition of adaptation will be given and expanded upon.

This thesis is concerned with what Frederick and Loewenstein (1999) have referred to as *hedonic adaptation*. Frederick and Loewenstein describe hedonic adaptation as “a reduction in the affective intensity of favorable and unfavorable circumstances” (1999, p.302). They identify two main functions of adaptation. First of all, adaptation protects the individual by lowering the internal impact of external stimuli. Furthermore, adaptation enhances perception by elevating the signal value produced by departures from the baseline level. A physiological example of this latter function is the adaptation our vision makes upon entering a dark environment. At first, we will not be able to differentiate subtle differences in hues, but after adapting to the low level of light we will be able to identify shapes and sizes. These two functions are also believed to govern hedonic states (hunger, thirst, pain etc.) leading to hedonic adaptation. Hedonic states are crucial as they alert our attention on pressing needs and avert us from engaging in dangerous activities. Nevertheless, prolonged exposure to a strong hedonic state (stress for example), is believed to have detrimental

physiological and psychological effects (Sapolsky, 1999). Hence, the ability to adapt may serve a protective function here. Additionally, if an aversive state is persistent, the perception enhancing function of hedonic adaptation might redirect motivation to productive changes in one's situation as opposed to lingering attempts to change the unchangeable.

From the above definition it becomes clear that hedonic adaptation is concerned with internal processes which for example excludes the use of corrective devices (like glasses or prosthetics). A more extensive operationalization of what elements constitute hedonic adaptation is provided by Menzel, Dolan, Richardson and Olsen (2002). They identify the following eight elements. Firstly, people may simply acquire greater skills to achieve their exciting goals without adjusting them or the activities required to attain them. This is referred to as skill enhancement. Secondly, without changing their goals, people may change the activities enabling them to reach their goals, which is referred to as activity adjustment. Additionally, the goals themselves could be adjusted indicating substantive goal adjustment. Also, people might alter their conception of health. This means that a person adopts a different definition of health that is more productive in thinking about their state of health. For example, the humanistic conception of health construes that health should be evaluated in terms of one's ability to adapt to the problems in life, not by the biostatistical nature of the problems themselves (Nordenfelt, 1993). These first four elements were deemed by Menzel et al. to be admirable achievements in the light of the unfortunate circumstances in which they occurred.

The next three elements of adaptation are described as regretful (yet aiding the adaptation) and Versteegh and Brouwer point out that they are perception biases than an "adjustment of oneself" per se (2016, p.70). First of all, cognitive denial of one's functional health leads to a factually mistaken self-evaluation of health. Another cognitive deficiency classified as an element of adaptation is the suppressed recognition of full health, meaning that there is no acknowledgment of what it is like to be in full health and what type of possibilities that allows for. Thirdly, people can change their expectations regarding what level of achievement for a certain goal would be acceptable. These lowered expectations appear to be the least desirable out of all elements of adaptation. The last element is heightened stoicism and it is not deemed particularly admirable nor regrettable. Somewhat related to lowering expectations, heightened stoicism states that people come to evaluate their happiness by means of what is achievable. Hence, they realize that not coming as close to reaching their goals as they might have done previously does not have to impede their happiness.

habituation and contrast (Brickman)

What effects were found in the literature?

- Brickman (1987), Lucas (2007), Oswald (2008), Menzel (2002), Frederick (1999)

Methodological issues:

- important that we look at prospective study (include onset of event of interest, Lucas(2007), Oswald(2008))

- Oswald (2008): on other test characteristics

- non-constant stimuli: the progressive deterioration associated with chronic illnesses

makes it difficult to measure the degree of adaptation (Frederick, 1999)

The extent to which adaptation occurs is a highly debated issue in the literature. Adaptation has mainly been studied within the field of psychology and is largely disregarded by the economics discipline (Oswald & Powdthavee, 2008). The most important reason for the absence of the notion of adaptation in the economics framework is that economists usually consider utility functions that do not take adaptation into account. This dichotomy between the two social sciences is remarkable, and in the current context of adaptation to disability regrettable, since it might be a highly relevant factor in determining one's quality of life.

Why is studying adaptation important/relevant?

- economic allocation for cure (Menzel, Versteegh)

- court settlements (Oswald)

literature

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