## **Referee Report**

Scitovsky, behavioural economics, and beyond

**Summary:** The aim of this paper is to revisit Tibor Scitovsky's work (TSW) work and relate it to contemporary research in the area of Behavioral Economics (BE). It is composed of three main parts. The first part reviews TSW, the second part contrasts this theory with Kahneman's work on multi-model decision-making, while the third part relates this theory to various themes in BE, including how people make decisions (section 2.3), welfare benchmarks (p11) the role of uncertainty and skill (3.1) changing preferences (3.2) and harmful addiction (3.3). All in all, the paper does in some parts highlight how BE can benefit from some of TS's much neglected insights. However, in other parts the paper does not do a convincing job in showing how TSW may be useful for BE.

## **General Remarks**

The content of this paper is spread across a wide range topics from changing preferences, how decisions are made, rational addiction etc. Perhaps because of this wide breadth, the paper lacks focus and the reader is left uncertain of what the main points of the paper are. The author covers each of these issues in a relatively brief manner, which in some cases leaves the reader with some doubt about what additional value TSW has relative to the current literature in BE. In other cases, the value of TSW is clear but its implications for current work in BE could be discussed in more detail. To that end, it would perhaps be better to focus the paper on a more narrow set of issues and tackle these in greater depth. In this way, the author can better tackle the chief challenge they face in highlighting to the reader what contribution TSW can make to current research, which is currently unclear.

**Section 2 -** The theoretical part of this paper tackles the task of understanding the relationship between TSW – which was based on motivational psychology – and Behavioral economics which is mainly linked to rational choice theory. As the paper points out, these ideas relate to quite different concepts. In the case of TSW, the theory is related to why rich people consume and the things we can expect to find in the choice set. On the other hand, BE usually takes the choices set as given and mainly focuses on how the choice between two given alternative are made. It is worth clarifying this point more and using this distinction to map where the possible points of connection between these theories do and do not work.

A critical problem with this paper is that it considers Scitovsky's theory as an autonomous body of work. In doing so, it ignores the underlying psychological theory of arousal that underpins this theory and how it has advanced in recent years, as well as how other relevant literature that has linked this theory to BE. This is very unfortunate as a greater consideration of this theory can help provide a better explanation about how and in what way TSW is related to BE. The paper could really benefit from a more detailed discussion of the theory of Arousal and the work of Berlyne who defined arousal as the level of alertness or activation of an individual, ranging from extreme drowsiness to extreme wakefulness (Berlyne 1960). Such an addition then opens the opportunity to discuss other psychologists who, since Berlyne, have considered the relationship between arousal and risk taking. In particular there

is a large literature on the relationship between sensation seeking and risk taking that deserves to be mentioned in the paper (e.g., Zuckerman, Eysenck, and Eysenck 1978; and Arnett 1994, Zuckerman 1884). In particular, Zuckerman posits that there exists a link between the novelty of an activity and the perceived risk of the activity "novelty tends to increase risk appraisal, and familiarity tends to reduce it" (Zuckerman 2007: 56). This is relevant because a growing literature in Behavioral economics has considered how such 'sensation seeking behavior' is related to preferences for risk – see for example O'Donoghue & Rabin (2001). highlight further potential overlaps and links between behavioral economic and the work scitovsky.

Section 2.3: The least strongest section relate to considering how TSW relates to Kahneman's system 1 and 2 approach to understanding how decisions are made. It is not convincing to the reader as TSW was not directly related to how individuals make decisions – he never wrote a book on decision-making. Rather his contribution was more focused on what motivates consumption in affluent societies and how this tends to leave people unhappy. The paper is very misleading in this regard, as one would conclude from reading the paper that TSW was mainly writing about decision making when in fact he was making an entirely different point about how the motivations for consumption have changed as society has become more affluent. Kahnemans approach essentially describes how individuals choose when faced with too much information, while Scitovsky's "novelty/comfort dichotomy" (page 9) is more about what motivates choice when consumers are bored and in search of excitement. In this regard, the paper fails to convince the reader that they are critically related to each other.

The only useful point made in 2.3 is that from scitovsky perspective uncertainty is something that can be demanded. However, even this point (page 10) is weak since scitovsky is describing individuals who are bored (low level of arousal) and seeking novelty, while kahneman mainly refers to agent who have to deal with too much uncertainty (high level of arousal seeking less arousal). Hence these ideas do not contradict each other. Rather, they describe different types of behavior that exist on different parts of the arousal spectrum.

Another weak part of the paper is its discussion of welfare benchmarks – supposedly a main aim of the paper (page 3). The discussion on welfare benchmarks is very hard to follow. It is not clear how the author reaches the conclusion that "scitovsky analysis may help....because it focuses on a dynamic version of well being" (page 11). more effort should be made what is meant here, if the author is referring to the concept of procedural utility, the this concept has been covered in BE – see for example Loewenstein (1999) and Kahneman, D., Wakker, P. P., & Sarin, R. (1997). The paper states that "Optimal well-being may be defined as a distinctive path over time whereby individuals successfully challenge their skill with novelties." (P8). Again this statement needs to properly qualified – in the context of affluent consumers who are bored and seeking novelty, this may be true. However it is by no means a universal benchmark for welfare. When behaviour is not motivated by boredom – this benchmark simply does not hold. Thus it is very misleading to compare it to the more general benchmarks for welfare developed in Rational choice theory and BE.

Section 3 – this section makes some good insight into BE and how it could benefit from TSW to better understand experimental results. Concerning tendency for skilled individuals to seek chances to challenge their skills in uncertain situations, it would be nice for the paper to expand upon how TSW has predictions about when such behaviour occurs. For example TSW could be used to predict that such behaviour would cease when the individuals are not bored and feel overwhelmed by the current difficulty of the task at hand. Period of repetition, on the other hand, would likely tend to increase the tendency for individuals to exhibit such behaviour.

Section 3.3. Intersting discussion of addiction. However, to what extent is it necessary to discus Becker's theory of rational addiction in this section? this is beyond the scope of the paper. The space may be better used to discussing more recent literature that is relevant to the opponent-process theory and also has links to BE – see for example Ainslie and Monerosso (2003) and Ainslie (2001)

Ainslie, G., & Monterosso, J. (2003). Hyperbolic discounting as a factor in addiction: A critical analysis. *Choice, behavioral economics and addiction*, 35-61.

Ainslie, G. (2001). Breakdown of will. Cambridge University Press.

**Loewenstein, G. 1994.** The Psychology of Curiosity: A Review and Reinterpretation. Psychological Bulletin 116:75-98.

Berlyne, D. 1960. Conflict, Arousal and Curiosity. McGraw-Hill, USA.

**Zuckerman, M. 1994.** Behavioral Expressions and Biosocial Bases of Sensation Seeking. Cambridge University Press, Cambridge.

O'Donoghue, T., & Rabin, M. (2001). Risky behavior among youths: Some issues from behavioral economics. In *Risky behavior among youths: An economic analysis* (pp. 29-68). University of Chicago Press.3.1 on uncertainty and skill

The author make

**Scitovsky, T. 1962.** On the Principle of Consumers' Sovereignty. American Economic Review 52:262-268.

Kahneman, D., Wakker, P. P., & Sarin, R. (1997). Back to Bentham? Explorations of experienced utility. *The Quarterly Journal of Economics*, *112*(2), 375-406.

Loewenstein, G. (1999). Because it is there: The challenge of mountaineering... for utility theory. *Kyklos*, *52*(3), 315-343.

Loewenstein, G. (Ed.). (2007). Exotic preferences: behavioral economics and human motivation. Ox