

Detailed response to Reviewer 2

I thank the reviewer for her/his comments, suggestions, and cited literature, which have allowed me to improve the paper. I have not strictly followed all the suggestions made for the reasons explained below. Nevertheless, all comments have stimulated me to make the analysis more convincing. To this end, large parts of the paper have been completely rewritten.

Reviewer's writing is in small letters.

General Remarks

The content of this paper is spread across a wide range of 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.

Now the focus of the paper has been made clearer by pointing out what are the contributions of Scitovsky that behavioural economics has developed but that should be also further explored, thus identifying new lines of inquiry. To this end, in particular, the abstract, large parts of the Introduction and of the Conclusions have been rewritten. Since the reformulation of Scitovsky's analysis has made evident that his contributions are interrelated within a single analytical framework, the set of issues discussed has been maintained. An effort has been made to go deeper and more clearly into the specific issues, as discussed below.

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 alternatives 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.

The reformulation of Scitovsky's analysis in terms of choice theory (original texts are closely referred to) has been further clarified, so as to facilitate the comparison with behavioural economics (see, e.g., at p. 9). The idea that Scitovsky's analysis is restricted to consumption by affluent people has been also briefly discussed, but not taken up throughout the paper. In fact, it has been observed that the late Scitovsky extended his analysis to poor people (see especially at the end of section 2.1).

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).

The fact that Scitovsky's analysis is based on Berlyne's theory of arousal has been recognised in this revision. In particular, the notion of 'pleasure' has been related to optimum stimulation (see p. 6). However, this analysis has not been pursued further because of its ambiguous empirical

evidence, as especially observed by a contributor to Kahneman's edited book on hedonic well-being (footnote 2).

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.

I thank the referee for these observations and for the cited literature. In section 3.3, which has been largely rewritten, I have introduced the link between sensation-seeking and risky behaviour by referring to Zuckerman's research. In the same section I have also devoted discussion to O'Donoghue & Rabin's (2001) analysis.

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.

I now recognise, at the beginning of section 2.3, that the purpose of Kahneman's book is rather different than that of Scitovsky. Further, I focus the specific common features, which point to dynamics and the persistence of biased choices. These features can be found both in Kahneman (2011: 234-44) (see pp.10-11), and in Scitovsky's analysis on the bias towards comfort (pp. 6-7). The reader has been informed that Scitovsky's analysis drew on motivational psychology (p.4), then s/he reads at p.10 that Kahneman's book is on decision-making, and that nevertheless common features can be found. For the response to the comment on the restricted application of Scitovsky's analysis to affluent people I have replied above.

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.

Indeed, the two ideas of uncertainty do not contradict each other, and this is now clearer from the revised discussion on the different characteristics of 'novelty' and comfort (p.5). More room has been devoted to Scitovsky's idea of desirable uncertainty because it is more unusual. The arousal spectrum has not been used because, as mentioned before, it does not have a robust empirical foundation, and it is not necessary (fn.2).

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.” (P 8). 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.

The question of the welfare benchmark has been now clarified: by dropping the mentioned statement at (previous) p.10 (which was also redundant); by referring to Becker’s model of ‘capital consumption’, where suboptimal path are possible when consumers are myopic (p.6); by discussing why Scitovsky’s consumers are myopic with novelty (p.5); by reformulating Scitovsky’s ideas in terms of Kahneman’s two systems of thought (p. 13); by being cautious in contrasting Scitovsky’s proposal as tentative against the usual rational benchmark (p.4), but also by observing that the usual rational benchmark is not so well-established in Scitovskyian conditions (emotions, changing skill, strong uncertainty) (pp.4,13). For the response to the comment on the restricted application of Scitovsky’s on affluent consumers see above. In particular, poor people may suffer from ‘chronic boredom’ because of their lack of skill, and are thus attracted by risky behaviours, while skilled people, like artists and entrepreneurs, do not suffer from boredom and search for novelty (pp.7-8). The concept of procedural utility has not been mentioned because it does not seem useful for linking behavioural economics to Scitovsky.

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. Interesting discussion of addiction. However, to what extent is it necessary to discuss 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)

I thank the referee for appreciating this section. It has now been improved according to her/his suggestions. The discussion on Becker’s theory of rational addiction has been substantially shortened. Ainslie’s approach has been introduced and discussed in comparison with the other approaches. The section concludes by advocating research on the conditions for boredom to arise, and on the link between boredom and risky behaviours.