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Welfare Creation and Destruction in a Schumpeterian World

by

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How to evaluate creative destruction: Reconstructing Schumpeter's approach

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Abstract. Economic change, while promoting innovation and growth, at the same time generates "gales of creative destruction". It is still largely unclear what this concept implies for the task of assessing welfare (and, correspondingly, the need for and scope of policy-making) in a novelty-generating, knowledge-based economy. Is novelty desirable per se? Is a rise of living standards due to innovation always worth the risks involved? Standard welfare economics is inherently incapable of answering these questions. By examining Joseph Schumpeter's explicit and implicit reasoning on welfare and linking his thoughts to recent ideas, within normative economics, on how to redefine "well-being" when preferences are variable and inconsistent, we argue that in an evolving economy, well-being should not be conceptualized in static preference-satisfaction terms, but rather in partly procedural terms of "effective preference learning".

Keywords: Joseph Schumpeter, Creative Destruction, Endogenous Preferences, Welfare Economics

JEL codes: D63, D03, B25

1. Introduction

Joseph Schumpeter's observation that the essential fact about capitalism is to be found in the "perennial gales of creative destruction" is arguably one of the most important insights of modern economics. Despite its popularity, though, the notion of "creative destruction" has received hardly any scholarly attention with respect to its obvious *normative* connotations.[1] If the innovative economy has destructive as well as creative effects, are we allowed to conclude – as "Schumpeterian" economists often do, if only implicitly – that innovation is always beneficial? More importantly, what would "beneficial" mean in such an economy, where, for instance, preferences change along with technology, making it difficult to apply conventional measures of well-being or welfare? The present paper attempts to clarify the normative dimension of creative destruction by reconstructing Schumpeter's own thoughts about it.

While he was ultimately convinced that, in general, innovation-driven change makes people better off, Schumpeter was also keenly aware of the downside of economic change. New products, modes of organization and new technologies tend to be beneficial "overall", but they also tend to make some individuals worse off, at least in the "short run". People may be faced with income losses, increased uncertainty, anxiety, or the devaluation of their human capital. They may lose their job, their social status, and may even see the basis of their self-respect erode.[2] These "vicissitudes" are the more severe, the faster economic change proceeds (Schumpeter, 1942, p. 68). They tend to fuel hostile reactions that constitute a latent challenge to the institutions underlying capitalism (an important theme in Schumpeter's work, but see also Mokyr, 2000). Apart from their politico-economic repercussions, these losses also raise issues of *legitimacy*. Creative destruction is not legitimate per se. As Baumol (2001, p. 21) rightly notes, by itself this notion "offers no basis on which to judge how far the process should go to serve the public interest most effectively". For without normative analysis we cannot say anything substantial about the "public interest". Is what is *created* in a process of change necessarily "better" than what is being *destroyed*? What kind of "destruction" should concern us? Do we know "whether a possible increase in per capita output and living standards through continuing innovativeness is worth the risks involved" (Witt, 1996, p. 114)?

At the same time, Schumpeter senses that these questions defy easy answers. For the analytical apparatus offered by contemporary comparative-static welfare economics (the "old" as well as, since the late 1930s, the "new" welfare economics) is unsuited to deal with the turbulence inherent in evolutionary change. It is unclear how to conceptualize "welfare", "costs" and "benefits" in a world of flux where these terms no longer seem to have any constant meaning. Ultimately, Schumpeter had to abandon the search for a "dynamic welfare economics" (Heertje, 2006, pp. 110-11), concluding reluctantly that

> "the question of appraisal of social gains from entrepreneurship … and of the social costs involved in a system that relies on business interests to carry out its innovations, is so complex and perhaps even hopeless that I beg to excuse myself from entering into it." (Schumpeter, 1947, p. 155, FN 12)[3]

Despite their growing interest in studying the policy implications of their research, evolutionary economists still hesitate to explore the welfare implications of economic change (which should, strictly speaking, precede any attempt to derive policy advice).[4] Most policy-oriented research revolves around the question what policy can do to foster innovation, growth, entrepreneurship and the diffusion of knowledge. "Evolutionary" goals like these are almost always taken as given, without any critical reflection. For instance, it is hardly ever asked whether these goals or criteria can be meaningfully applied in the context of an evolving economy. Are they operational? Are they connected to what real-world individuals care about (to their "well-being")? Do they conflict with each other or with external societal goals (such as "social justice"), and if so, how can these conflicts be solved? The lack of an elaborate "normative structure" (Nelson, 1977, pp. 18, 45) to clarify these issues severely limits the potential of evolutionary economics to render practical policy advice.

We argue that the time has come to move beyond this purely instrumental stage (Keynes, 1917). In order to assess whether an innovative economy generates "good" or "desirable" results, evolutionary economists need to develop their own concepts of well-being or welfare (these terms will be used interchangeably in the following, denoting "advantage" or "quality of life" in a broad sense). As Nelson and Winter (1982, p. 356, italics in the original) argue, "it is apparent that an evolutionary view of what *is* going on in the world of firms and industries strongly influences how one looks at the question of what *should* be going on," leading them to call for a "rethinking of normative economics" along evolutionary lines. As the present paper will show, Schumpeter's reflections on how to evaluate economic change, despite being somewhat fragmentary and incoherent at times, may serve as a valuable source of inspiration for constructing such an account of welfare. This task is facilitated by the fact that welfare economics, despite still carrying most of the (equilibrium-based) conceptual ballast as in Schumpeter's days, has nonetheless moved slowly forward, toward the uncharted territory that he descried decades ago: How can we assess welfare in a non-static, evolutionary world, i.e. in a world where preferences (welfare economics' key variable) change endogenously? As we will argue, it is possible to devise a criterion of welfare that reflects the individuals' capacity to *cope with and adjust to change*, rather than to achieve some "optimum" end-state of aggregate social welfare. Thus, this paper does not only aim at reconstructing Schumpeter's own position, but to find a way to use his ideas to develop a genuinely dynamic ("Schumpeterian") notion of welfare.

The argument proceeds as follows: Section 2 reconstructs Schumpeter's critique of orthodox ("old" and "new") welfare economics. Section 3 describes one way – still popular among evolutionary economists – Schumpeter tried out to defend the capitalist order without directly relying on the orthodox toolbox. Section 4 suggests to go beyond Schumpeter's own attempts with the help of the model of the "impartial spectator" (ultimately due to Adam Smith). It also shows how this model can be applied in an evolving economy, specifically arguing for approaching the trade-off between the beneficial and destructive impact of innovation in terms of a procedural criterion of "effective preference learning". Section 5 concludes.

2. Welfare Economics meets the gales of creative destruction

It is not easy to discern Schumpeter's views on the normative dimension of innovation-driven growth. For a start, methodological concerns blocked the way. In his early book on "The Nature and Essence of Theoretical Economics" (1908) he not only denies any personal interest in practical policy advice, but also argues in favor of a “pure” economics, purged from any political or ethical considerations, in order to be perfectly free from any “ideological” stain (Swedberg, 1991, pp. 69-71; Andersen, 2009, pp. 352-354). Throughout his work, he maintains a broadly Weberian position with respect to the relationship between statements of facts and value judgments: They should be clearly marked and kept separate.[5] In his “Development” paper (Schumpeter [1932] 2005), e.g., he criticizes the German Historical School’s “faith in progress” for its “positive valuation of changes”, arguing that “[p]recisely because it implies valuation, it has no right of place in science” (ibid., p. 119; see also Shionoya, 1997, ch. 11).

In his applied work, though, he does not always respect these self-imposed limits. Neither his explanatory theorizing (Mann, 1958) nor his policy-related remarks are free of (often implicit) value judgments. As to the latter, he does not shy away from giving policy advice – e.g. in arguing against anti-trust measures or in pushing for policies to promote entrepreneurship.[6] On a more abstract level, he has clear ideas about how *not* to conceptualize “welfare”, a case that cannot be made in a perfectly “value-free” way. His peculiar notion of “progress” – meant to be descriptive, but obviously insinuating something desirable – also somehow blurs the distinction between the positive and the normative.[7]

In Schumpeter’s view, on empirical grounds the capacity of the market economy (its internal “source of energy”[8]) to bring about novelty and ongoing change from within is, *on the whole*, clearly beneficial to society. At the same time, though, it is a key insight of his that the process of change proceeds unevenly. In the famous seventh chapter of *TED*,[9] he paints a particularly bleak picture of the negative side-effects involved in processes of economic change:

> “[A] process of degeneration, of degradation of large circles (of society) accompanies the upward movement ... Large circles see their economic basis being pulled away. This does not happen abruptly, but gradually. Through generations, the people affected live a deprived existence full of hopelessness. Their moral and intellectual powers dwindle, the more so the more the economic atmosphere they find themselves in is darkening.
> An observer from outer space wouldn’t notice these phenomena, so fascinating is the development at large – and those losses are just their reverse. They are due to the fact that the services these agents offered are now being offered in a better way. Even the suffering thus caused serves to get rid of the obsolete and to impel

> novelty. Those who play the drama, however, as well as those observers close to them, think differently about it. They cannot ignore the shouting of the crunched who are crushed down by the wheels of novelty." (Schumpeter, [1912] 2006, p. 503)[10]

As we will see in the following, these two paragraphs are a key to understand Schumpeter's normative intuitions regarding evolutionary change. Let's start with the first one. It describes "creative destruction" *avant la lettre*. Evolutionary change is an inherently turbulent, restless affair, generating unpredictable and potentially large redistributions of well-being.

This is so for two reasons: First, the kind of "development" Schumpeter is interested in does not reflect the impact of ordinary price competition, but "competition from the new commodity" (Schumpeter 1942, p. 84), whose impact is much more fundamental. As Haberler (1950, p. 365) puts it, "[t]he really big changes which shape the course of economic development … must be forced upon the stationary, circular flow economy in intermittent pushes", making the fluctuations involved, say, in business cycles an "integral part of the process of economic development" (ibid.). Digging deeper, this can be traced back to the way the economy's knowledge base develops: "Progress in knowledge is necessarily *non-uniform*" (Metcalfe, 2001, p. 565, italics added). For economically relevant knowledge is always prone to be falsified and become obsolete when circumstances change. In an economy that operates outside a state of equilibrium, there are at all times "internally generated reasons for beliefs to change" (ibid.). With the epistemic basis of economic behavior in permanent turmoil, it follows that economic change itself necessarily proceeds unevenly: As Metcalfe (ibid., pp. 566) concludes, "creative destruction implies the destruction of some activities as a necessary element in the growth of others".[11]

The second reason for the turbulent nature of evolutionary change relates to the motivational basis of economic behavior. Losers may anticipate their losses and try to either avoid them or compensate for them by innovative action, thereby generating new losses somewhere else in the system. As Schumpeter ([1946] 1991, p. 204) argues, innovation-induced inequality generates a "stimulating atmosphere": "The lure of big prizes coupled with the threat of complete destitution no doubt [produces] a scheme of motivation of perhaps unique effectiveness". There is, thus, a "feedback from the performance of the pioneering entrepreneurs … to their motivation to trigger further innovative activities" (Witt 2002, p. 16).

How should policy deal with the adverse side effects of turbulent evolutionary change, such as inequality and uncertainty? Before any practical policy implications can be derived, we need to be clear about the *goals* policy should pursue and the *criteria* with which it should be evaluated. From a Schumpeterian perspective, standard welfare economics is not helpful here, since it underestimates the complexity of the issues involved. Consider inequality: Given the indeterminacy of economic development, its redistributive effects are largely unpredictable. As Ludwig Lachmann puts it, "[i]n a world of unexpected change economic forces generate a redistribution of wealth far more pervasive and ineluctable than anything welfare economists could conceive" (Lachmann 2007: 81, FN 6). Schumpeter most certainly would have agreed. He himself specifically objects to the traditional Pigouvian position that social welfare may be raised by redistributing income and wealth, as long as the assumption is upheld that the resources involved yield a diminishing marginal utility for all agents. Pigou and his followers neglect the effects such a policy may have for the further process of economic evolution, in particular for innovative behavior (Schumpeter, 1954, p. 1073). As regards the "new" welfare economics, the criterion of Kaldor-Hicks efficiency is rejected on similar grounds, as it "neglects all but the immediate effects [of policy]" (Schumpeter 1949b, 164, FN 5).[12]

In Schumpeter's view, welfare effects should be assessed from a long-term perspective:

> "Since we are dealing with a process whose every element takes considerable time in revealing its true features and ultimate effects, there is no point in appraising the performance of that process *ex visu* of a given point in time; we must judge [the] performance [of the process] over time, as it unfolds through decades or centuries" (Schumpeter, 1942, p. 83, italics in the original).

> "[A]ny pro-capitalist argument must rest on long-run considerations. In the short run, it is profits and inefficiencies that dominate the picture …" (ibid., pp. 144-45).

Note that to judge the performance "over time" is not exactly the same as judging it according to "long-run considerations". As we will see shortly, while Schumpeter himself sticks to the latter interpretation of a "dynamic" assessment of welfare,[13] an interpretation in procedural terms ("over time") would ultimately be a safer way to achieve what he seems to have had in mind.

The plea to focus on the economy's long-term performance has two important implications. First, at the level of normative reasoning we have to acknowledge the functional quality of (short-term) "profits and inefficiencies". Innovative change cannot materialize without the continuous attempt by entrepreneurs to challenge, establish and defend market power (Schumpeter, 1942, p. 105). In light of the ensuing trade-off between short-term welfare losses and long-term benefits, orthodox concepts such as "market failure" are of little use (Metcalfe, 2005; Soete and ter Weel, 1999). Schumpeter argues that the functional quality of (at least some of) the short-term welfare losses has to be acknowledged. Consider again the long quote from TED, given above, where he states that

> "... [the losses] are due to the fact that the services [the losing agents] offered are now being offered in a better way. Even the suffering thus caused serves to get rid of the obsolete and to impel novelty." (Schumpeter, [1912] 2006, p. 503)[14]

Second, at the level of applied policy-making, Schumpeter consistently argues against any policy measure that interferes too much with the ongoing process of evolutionary change and its capacity to generate innovation and growth. His skeptical stance towards anti-trust policy is well-known. More to the point of the losses accompanying creative destruction, namely unemployment, he argues that

> "the real tragedy is not unemployment *per se*, but unemployment plus the impossibility of providing adequately for the unemployed *without impairing the conditions of further economic development*." (Schumpeter, 1942, p. 70, italics in the original).

Unsurprisingly, within contemporary normative economics Schumpeter cannot find any theory or criterion that captures his intuition about the need to account for these subtle trade-offs in assessing capitalist performance. In his view, the root of the problem is to be found in the utilitarian background of standard welfare economics. Utilitarianism consistently neglects the evolutionary dimension of the *evaluandum*.[15] In light of Schumpeter's picture of the evolving economy, one may say that the analytical tools it provides are too simplistic.

What has been said so far may already suffice to discredit the applicability of the conceptual apparatus of standard welfare economics in an evolving economy. Schumpeter's insistence on a dynamic perspective has a further implication, though: As he observes, the utilitarian ideas underlying standard welfare economics appear to have much support in the population at large, i.e., among those people who "play the drama" of creative destruction:

> "For the masses, it is the short run view that counts … They feel après nous le deluge, and from the standpoint of individualist utilitarianism they are of course being perfectly rational if they feel like that … Secular improvement that is taken for granted and coupled with individual insecurity that is acutely resented is of course the best recipe for breeding social unrest" (Schumpeter, 1942, p. 145).[16]

As an *individualist* exercise, welfare economics relies of course on the actual preferences of the individuals affected by socio-economic change. In its textbook "revealed preference" variant (Samuelson, 1938), it does so to the point that well-being is defined by choice, since the latter is assumed to perfectly "reveal" an agent's rational preferences. In Schumpeter's view, though, these preferences may be uninformed, as it were, by any considerations related to the significance of a given policy's long-term impact.

Why is that? From Schumpeter's (quite scattered) remarks we can discern that there are at least two factors responsible for the poor quality of people's preferences. The first factor refers to standard political economy considerations: People's one-sided focus on "short-term" losses and the "social unrest" and instability that come with it may reflect rational attempts to capture rents, by, e.g., inducing policy-makers to help secure market positions that would otherwise become obsolete in the process of creative destruction.[17]

Schumpeter's second argument is more complex. It concerns the psychological basis of ordinary people's preferences, a factor emphatically ignored by the welfare economics of his time. Schumpeter tries to endogenize people's preferences. In *CSD*, for instance, he argues that the capitalist process reshapes "not only our means of attaining our ends but also these ultimate ends themselves" (Schumpeter, 1942, pp. 127, 248-253). This is in fact a key topic of his sociological speculations about capitalist civilization, seen as a whole: The emergence of large firms, led by a centralized bureaucracy, only reflects the way capitalism spurs materialism, rationalism and, ultimately, "utilitarian ideas about the betterment of mankind", coupled with a rising willingness on the part of voters and policy-makers alike to scrutinize traditional norms and to support "social legislation" (ibid.; McCraw 2007, pp. 436-441), such as the "democratization of the workplace" (Medearis 1997). The "knightly elements", embodied in the heroic entrepreneur, without which the capitalist civilization cannot survive are dismissed. For Schumpeter, this attitudinal impact helps explain people's wide-spread unease with the capitalist process. Information campaigns and processes of public deliberation apparently would not make a difference: People's "rationalized" minds cannot grasp the "difficult" arguments in favor of the capitalist order (Schumpeter, [1936] 1991, p. 307). They lack the "insight" and "moral feat" to do so (Schumpeter, 1942, p. 144).[18] By moulding the individuals' way to perceive the gains and losses brought about by it in this specific way, capitalism destroys its own "psychological" and moral foundations.[19]

For Schumpeter, the fact that individual preferences are endogenous leads to the conclusion that they do not qualify as an adequate basis for evaluating the economic process. In the seventh chapter of *TED*, he frames the problem this way:

> "We all always approach the new with traditional fixed measures, with measures that have been created under the circumstances of the past. This is particularly the case with social phenomena. And even unconsciously the past is always the judge of the present. And it is the most biased, partisan judge. In this way, the new cannot easily pass, certainly not with those engaged in acting and fighting …" (Schumpeter, 2002, p. 134).

As they are attuned to what is well-known, preferences are a poor ("biased") guide to evaluate the unknown, namely, novelty.[20] This may be reframed by arguing that people may actually *lack* the preferences necessary to properly assess novelty.[21] As a consequence, the whole basis of utilitarian welfare economics collides, as does the idea that some "common good" (the "will of the people", say) may be derived from the individuals' preferences.[22] Since they will be unable to properly appreciate its implications, people will necessarily reject novelty.

Schumpeter rejects the use – as evaluative space or "currency of welfare" – of the standards that those individuals have in mind who happen to experience the effects of novelty generation. In other words, he rejects the option to evaluate economic change on the basis of an individualist approach to welfare that (at least in its standard interpretation) takes individual preferences at face value, by basing the evaluation of economic processes and outcomes exclusively on the subjective judgments of the individuals affected by them (Buchanan, 1991).[23] A normative individualist would certainly take seriously individual perceptions of harm and loss and at least respect them in terms of their normative (rather than mere politico-economic) relevance. For Schumpeter, by contrast, judging economic change according to the real individuals' standards would imply using evaluations and measures that are not up to the job.[24] In one of his last articles, he criticizes the "uncritical belief that so many seem to harbor in the virtues of consumers' choice" (Schumpeter, 1949a: 380, FN 28).[25] By acknowledging that due to their potential irrationality, preferences lose their normative primacy, Schumpeter appears to anticipate crucial behavioral economics insights that would start to transform normative economics only since the 1990s (see below). Unfortunately, it is not quite clear what alternative non-individualist position he regards as superior.[26]

One tempting way out would be to postulate a deterministic relationship between processes of economic change and individual preferences and values, which then leads directly to a sort of "evolutionary agnosticism". In *CSD*, Schumpeter tries out this path, by arguing that

> "[w]hether favorable or unfavorable, value judgments about capitalist performance are of little interest. For mankind is not free to choose. This is not only because the mass of people are not in a position to compare alternatives rationally and always accept what they are being told. There is a much deeper reason for it. Things economic and social move by their own momentum and the ensuing situations compel individuals and groups to behave in certain ways *whatever they may wish to do* – not indeed by destroying their freedom of choice but by shaping the choosing mentalities..." (Schumpeter, 1942, pp. 129-130, italics added)

Importantly, this materialistic position would not only imply the rejection of individualist utilitarianism, but, much more radically, the rejection of anything like critical scientific or public moral reasoning on concepts and criteria of welfare, i.e. for what today is widely regarded as the main practical task of normative economics (Sen, 2009; Broome, 2008). To illustrate, Schumpeter criticizes Hayek's contribution to normative reasoning (in the

"Road to Serfdom") for allegedly treating ideas and principles "as if they floated in the air" (Schumpeter 1946, p. 270), i.e., without accounting for their "own momentum".

Schumpeter's "agnostic" strategy, however, cannot be upheld. Apart from its obvious determinism (incompatible with the general thrust of his work) and the implicit, highly questionable concept of a market economy that somehow evolves by its "own momentum", i.e., independently of purposeful institutional design, the underlying psychology is unconvincing. While it is certainly correct that economic circumstances have an impact on the values and "choosing mentalities" of people, it is highly implausible to argue that people cannot help but adapt their preferences so completely as to endorse any new set of circumstances that they are confronted with. Preference learning cannot be reduced to the passive adaptation to one's circumstances.

What can be discerned at this point, then, are the contours of a specific normative, post-utilitarian research program: Schumpeter looks out for a sound basis to justify the capitalist process – a non-trivial task since at the same time he does not overlook the welfare losses associated with it. In part, these losses may well be "functional" – at this very abstract level, however, such a statement is obviously not sufficient to fully legitimize any of them. While the contours of a normative principle and a welfare concept that can do this evaluative job remain unclear, it is certain that the process with all its discontents cannot be defended on the grounds of the comparative statics of standard efficiency criteria.

3. Judging the Drama of Creative Destruction

How did Schumpeter argue his way around the toolbox of orthodox welfare economics? As McCraw (2007, p. 501) observes, "the more he worked on the topic [of capitalism]… the more convinced he became that capitalism's creative elements outweigh its destructive ones." It seems clear, though, that what Schumpeter has in mind is to argue that capitalism's *beneficial* impact outweighs its *harmful* impact (at least in the "long-run"). Let us call this "hypothesis 1". It is obviously a value-laden position which would require explicit normative reasoning to support it – all the more so in light of the fact that hypothesis 1 is often taken to imply the quite different position that "[d]estruction, *however painful*, is the necessary price of creative progress toward a better material life". This is what McCraw (ibid., italics added) *also* attributes to Schumpeter. Let us call it "hypothesis 2".

Concerning hypothesis 1, two issues would have to be clarified: First, in terms of which currency of welfare do benefits "outweigh" costs? Second, how does Schumpeter's argument relate to the Kaldor-Hicks criterion of hypothetical compensation? The latter seems to reflect an almost identical normative intuition, but is actually rejected by Schumpeter on methodological grounds (see above). Instead of abstract normative reasoning, though, Schumpeter offers a hypothetical case study which demonstrates that he thinks about the problem in terms of (i) objective wealth, and (ii) of *factually* compensating the losers or at least their children and grandchildren (Schumpeter, 1942, pp. 63-69): He speculates about the future growth trajectory of the US economy. From his 1942 perspective he calculates that, *if* total real output were to continue to grow as it has done in the past (viz., from 1868 until 1928), i.e., by a "long-run average rate of increase of 2 per cent per year" (ibid., p. 65), then, by the year 1978, the US would see average real income increase to about "1,300 USD of 1928 purchasing power", an enormous sum (ibid.).[27] What is more, he takes it to be self-evident that the capitalist process will in particular benefit lower income groups:

> "[I]f the system ... really reached [in 1978] the $ 1300 per head of population, it is easy to see that all the desiderata that have so far been espoused by any social reformers ... either would be fulfilled automatically or could be fulfilled without significant interference with the capitalist process" (ibid., pp. 67, 69).

The "standard of life of the *masses*" will be raised:

> "There are no doubt some things available to the modern workman that Louis XIV himself would have been delighted to have yet was unable to have – modern dentistry for example … The capitalist achievement does not typically consist in providing more silk stockings for queens but in bringing them within the reach of factory girls..." (Schumpeter, 1942, p. 68).[28]

Hence, he projects that there would simply be no need to worry about the welfare losses associated with capitalist development, since the process itself would generate the means necessary to materially compensate all conceivable harms. In the long run, the "destruction" involved in the process of creative destruction would cease to be a matter of concern.

By suggesting an objective standard such as wealth, Schumpeter sidesteps the problem of defining welfare in terms of people's potentially unreliable subjective preferences (see above). His argument rests on shaky foundations, though. First, by boldly extrapolating from the economy's past performance, Schumpeter violates his own methodological standard according to which true "development" is essentially indeterminate, even "in the most profound sense" so (Schumpeter, [1932] 2005, p. 113). Thus, historical extrapolation would seem to be illegitimate in the context of a novelty-generating economy – even if the system has performed well against Schumpeter's own notion of "progress", we are not entitled to conclude that it will continue do so indefinitely (Witt, 2002, p. 19).[29]

Second, Schumpeter's argument is problematic for theoretical reasons. For the sake of measurability, his calculus sticks to a quantitative output-indicator of welfare. Adding an adequate quantitative equivalent for "improvements in quality", he speculates, would certainly increase rather than decrease his 2 per cent estimate of overall growth (Schumpeter, 1942, p. 66; see also Schumpeter, 1946, p. 197). While this is certainly correct within the confines of his calculus, Schumpeter himself concedes that this calculus fails to account for the fact that "welfare" consists in much more than material growth and qualitative improvements:

> "[T]he dignity or intensity or pleasantness of human life - …all that economists of an earlier generation subsumed under the heading of Satisfaction of Wants – … is, after all, for us the relevant consideration, the true 'output' of capitalist production, the reason why we are interested in the index of production" (Schumpeter, 1942, pp. 66-67).

This echoes similar statements as to his theoretical normative commitment throughout his work: Consumer wants should be the sole currency of welfare.[30] Things get more complicated, though, by Schumpeter's dismissal of the standard (utilitarian) way of defining "wants" in welfare economics as being too narrow and simplistic (ibid., p. 251). In his view, human values cannot be reduced to one unique dimension. For instance, he argues that non-material goods such as leisure should be accounted for as an essential component of well-being (ibid., pp. 66, 145). He also acknowledges the importance of relative well-being (Andersen, 2009, pp. 90-91). Due to this complexity, actual human well-being appears to him to be elusive: In the context of practical down-to-earth arguments, Schumpeter suggests to stay with objective material output notions, i.e., to "keep to our 2 percent" (Schumpeter, 1942, p. 67).[31]

Unfortunately, this pragmatic decision does not solve the underlying inconsistency: Material output may indeed have increased at staggering rates since 1942, but this does not imply that subjective well-being has increased as well. As Schumpeter himself puts it, we do not know whether "men are 'happier' or even 'better off' in the industrial society of today than they were in a medieval manor or village" (ibid., p. 120). Material welfare does not necessarily buy well-being in the sense of "dignity or intensity or pleasantness of human life". Paradoxically, as recent research on the determinants of happiness has unveiled, this applies in particular in affluent economies, where all basic needs are largely satisfied (Scitovsky, 1976, ch. 4; Frey and Stutzer, 2002): With higher and higher levels of absolute material wealth, it may get *more*, not less difficult to increase the actual level of people's life satisfaction.

How to explain this? For assessing actual human well-being, a phenomenon plays a key role that Schumpeter himself repeatedly considers to be fundamental in an evolving economy: Individual preferences change over time (Schumpeter sticks to the term "wants"). First of all, individuals tend to adjust their aspiration levels upwards when their personal level of well-being increases. Silk stockings made "factory girls" happy when they could first afford them, but now they dream of more sophisticated goods. Second, their aspiration levels are a function of their peers' well-being, i.e., it is relative, not absolute well-being that counts (Frank, 1999; Layard, 2006). Third, over time people may create *new* wants that may be harder to satisfy. This is particularly relevant in a Schumpeterian economy, where growth is characterized by qualitative change in the product space: "Add as many mail coaches as you please, you will never get a railroad by so doing" (Schumpeter, [1932] 2005, p. 115). Preferences regarding train travel did not exist before – now they have to be learned somehow. New wants however may display different satiation patterns; in particular, they may be harder to satisfy than the old wants (consider the want for status recognition). As Schumpeter (1942, p. 131) puts it, "satiety becomes a flying goal". This complicates things: In an evolving economy, it does not make sense to stick to a static notion (and corresponding indicator) of welfare, such as the satisfaction of "given" wants and preferences, along with its concomitant concepts such as consumer surplus and willingness to pay or to accept.

Schumpeter does of course take the variability and endogeneity of preferences seriously. New consumer goods do not only respond to existing preferences; they also reflect conjectural anticipations of a change in tastes and of the possibility to affect this change. Consumer wants, he argues in *TED* (Schumpeter, [1912] 1982, p. 65) are "educated" and "taught" by producers who initiate economic change. In the seventh chapter of *TED*, he goes on to argue that "the evolution of wants which we observe in reality is a product of the given economic development, rather than its engine ... in principle ... wants are pulled and generated by the process of economic change" (ibid., p. 485).[32]

Hence, due to the complexity of people's "true" currency of welfare, Schumpeter's pragmatically "objective" approach to solve the problem of how to evaluate processes of creative destruction does not get him very far. Schumpeter may have anticipated these objections. In his "Creative Response" article (Schumpeter, 1947, p. 153, FN 9), he backpaddles to the position that entrepreneurial action should not be seen as "valuable" per se. A priori, we cannot know whether some entrepreneurial activity does in fact generate "desirable" or rather harmful results. Rather, "whether a given entrepreneurial success benefits or injures society or a particular group within society is a question that must be decided on the merits of each case" (ibid.) – which however leaves the question unsettled how exactly – in each individual case – the "merits" should be conceptualized, measured and balanced against the costs.

What we can learn, though, is to take seriously the fact that along with the process of "creative destruction", people's preferences change. People respond to evolutionary change by adapting and refining their tastes. Any "Schumpeterian" approach to welfare should take this fact into account.

4. How to think about welfare in an evolving economy

This section examines whether it is possible to construct, in light of Schumpeter's own thoughts about the normative connotations of evolutionary development, a basis for an evolutionary ("Schumpeterian") approach to welfare. We will argue that such an approach has to satisfy three conditions. First, it has to respect the fundamental distinction between facts and values. Second, it requires a normative method that focuses on the comparative assessment of alternative institutional arrangements and that allows us to derive at least basic propositions about the welfare implications of evolutionary change. Third, these propositions have to come to terms with the difficult trade-off, emphasized by Schumpeter, between short-term welfare losses and long-term benefits (see section 2, above). We will suggest a concept of welfare that satisfies these three conditions and may, thus, serve as the basis of a "Schumpeterian" approach to welfare.

4.1. The fundamental distinction between facts and values

The first condition may best be specified in Schumpeter's own words: "[N]o determined value judgment *necessarily* follows from the facts and relations between facts that I have tried to convey" (Schumpeter, 1942, pp. 129-130, italics added). This reflects Weber's (and ultimately Hume's) well-known axiom that positive and normative statements are separated by a categorical divide that does not allow any logical conclusions to be made from the former to the latter (Weber, 1949). Put differently, in order to get from the *input* of some set of positive statements (about the evolutionary character of the economy, say) to the *output* of a normative conclusion, the input has to complemented by at least one normative statement. Insofar as this is done explicitly, no methodological problems arise. Hence, it would amount to a "naturalistic fallacy" to attach any normative label (such as "good" or "desirable") to some empirical fact, such as the phenomenon of economic evolution itself, say, or some of its products, solely on the ground of its existence (Mackie, 1977, ch. 3). Notice that this leaves room for two kinds of scientific inquiry: First, it does not invalidate the possibility of hypothetical statements containing value judgments: If some goal is assumed to be aimed at by some individuals, then the scientific observer can always devise – hypothetical – statements about how best to achieve this goal.[33] Second, it does not preclude the option to examine alternative normative statements (such as those underlying concepts of welfare) as to their practicality and applicability in a specific context, such as the context of an evolving economy.[34]

In line with this first condition, Schumpeter emphatically rejects any "evolutionist" belief in the inherent progressive nature of development (e.g. Schumpeter [1912] 2006, p. 492-93). Note, however, that of the two normative hypotheses attributed to him (see section 3, above), only hypothesis 1 avoids the naturalistic fallacy, and it does so only to the extent that the value judgment underlying it is made explicit. Schumpeter argues that the losers of economic change (or their descendants) will eventually be "compensated", implying that *some* compensation in *some* currency of welfare is a prerequisite for a normative endorsement of the whole process. That is, he first introduces a value judgment – when implicitly requiring material compensation for the process to be legitimate *ex post* – and then hypothesizes (rather boldly) that as a matter of fact the innovation-driven economic process will provide for the compensation required. In contrast, the much stronger hypothesis 2 ("destruction, *however painful*, is the necessary price of creative progress toward a better material life") violates the requirement. For the "however painful" insertion effectively prejudges the normative assessment of the whole process, thereby leading directly into the naturalistic fallacy: Whatever evolves is taken to be good *per se*. Given the first principle of normative reasoning sketched above, we have no grounds for assuming that the outcome of an evolutionary process will be "good" per se in any meaningful sense.

4.2. A method for thinking about welfare implications

As to the second condition (concerning the normative method to be applied), we argue that in a Schumpeterian setting, it does not make sense to take some "optimum" end-state as a normative benchmark. Policymakers lack both the knowledge and the incentives to realize particular "welfare-maximizing" allocative outcomes. What is more, the notion of optimum does not make sense in a setting that operates off equilibrium. Hence, we conceptualize policy-making as a process that, by means of *rule design*, partly influences the direction and intensity of innovativeness and economic change (Vanberg, 1994). This builds upon a positive proposition, i.e., a statement about what is feasible in policy-making. We now add the (similarly weak) *normative* proposition that policy – as rule design – *should* ultimately be justified and guided by the principle of increasing the well-being of the polity's citizens, however defined. Given this, the most important step concerns the way how to conceptualize "well-being".

As we have seen, Schumpeter is skeptical with regard to standard individualist notions of welfare. At the same time, he implicitly resorts to (quasi-)individualist arguments in his constructive argument described in section 3, above, when referring to factual compensation as the outcome that legitimizes creative destruction (if ex post). Underlying the argument is an explicit commitment to "want satisfaction" as the framework within which welfare should be defined and measured – provided the variability and complexity of wants is somehow accounted for. Even in his brief detour towards evolutionary agnosticism (see end of section 2, above), he argues in quasi-individualist terms: Individual negative value judgments with respect to the market process are not explicitly denied normative relevance – they are denied factual relevance only because of the *ad hoc* determinism that frames the whole argument. [35] Apart from Schumpeter's own position, though, it seems that an evolutionary perspective on the economy, with its focus on individual heterogeneity, creativity and the value of diversity more general, would not easily fit with a non-individualist, holistic attitude in matters of welfare assessment.

Thus, we submit that an individualistic approach to welfare would not, by itself, run against the spirit of Schumpeterian theorizing. Schumpeter's repeated concerns about the "quality" of manifest (possibly uninformed, status quo-biased) preferences, however, call for an approach that, while in principle based upon actual preferences, takes them as an "input" to a public process of normative reasoning and deliberation.

Such an approach to normative economics was not available to Schumpeter. In his days, welfare economics focused on the satisfaction of "given" (actual, manifest) preferences, represented by ordinal utility functions. These satisfactions had to be aggregated by some social planner who would then choose any policy that maximized "social welfare". It was only much later that welfare economists started to worry about the quality and content of "given" preferences (see, e.g., Harsanyi 1982). Non-orthodox welfare economists such as Amartya Sen suggested to replace – both in theory and in practice – the (purely technical) process of aggregation by a public process of critical normative reasoning and democratic deliberation. In these processes, individual preferences would be informed, confronted with alternative perspectives, and possibly transformed thereby. John Rawls' methodology of "reflective equilibrium" exemplifies this approach (Rawls, 1971, pp. 48-51). Normative economics would then advise citizens in their role as political principals, rather than policy-makers in their role as social planners.

It may be objected, at this point, that Schumpeter himself associates the "democratic method" with the general trend towards ("utilitarian") rationalization that would ultimately – and inevitably – *subvert* the capitalist order (see above). If this were correct, the suggested process of public deliberation would be meaningless. We may, however, retain the diagnosis about rationalization (which is compatible with our suggested procedure)[36] by, at the same time, dismissing the prediction as overly deterministic and somehow unfounded: Why should it be impossible to transform the biased "après nous le déluge" attitude of the "masses" into an attitude that is better informed about capitalism's long-run ("evolutionary") potential?

How can we make sense of the idea of a process of public reasoning and deliberation? We suggest to follow Sen (2009, ch. 6) in taking Adam Smith's model of the *Impartial Spectator* – elaborated upon in his "Theory of Moral Sentiments" (Smith 1976) – as a conceptual framework for such an approach to normative reasoning. When assessing the benefits and costs of "gales of creative destruction", individuals would then be asked to transcend their own (limited and biased) viewpoint and to take into account different, external perspectives. As Sen (2009, pp. 44-46) explains, Smith's model is tailored to the comparative assessment of alternative institutional arrangements, discarding any notion of optimum end-states. Alternative rules are evaluated according to the broad patterns of outcomes they can be expected to generate. We argue that this model is able to capture Schumpeter's intuition, expressed in the quote from *TED* (see above, section 2), that when confronted with an innovation-driven “process of degeneration, of degradation of large circles [of society]”

> *....[a]n observer from outer space* wouldn’t notice these phenomena, so fascinating is the development at large...
> Those who play the drama, however, as well as those observers close to them, think differently about it. They cannot ignore the shouting of the crunched who are crushed down by the wheels of novelty.” (Schumpeter, [1912] 2006, p. 503)

Here, Schumpeter introduces two normative viewpoints. The “observer from outer space” represents a fully detached position that acknowledges the difficult-to-grasp long-run impact of capitalist evolution. In contrast, “those who play the drama” (as well the non-objective “observers close to them”) are too myopic and too distracted by their own fortunes to do that. This clearly echoes Smith’s distinction between the “impartial spectator” and “those immediately affected” (Smith, 1976, pp. 82-85, 97, 269-70). It quite obviously makes a difference in terms of policy implications which of the two perspectives one adopts.[37]

The “Impartial Spectator” (henceforth IS) serves as a heuristic that structures normative reasoning by asking people to adopt perspectives other than their (original) personal one. Put in Schumpeter’s own terms, they are asked to activate their powers of “insight” and “moral feat” that are originally dormant (Schumpeter, 1942, p. 144). Most importantly, they are invited to take into account both the short-term *and* the expected long-term effects of innovative change.[38] One may, e.g., ask them to imagine (as a thought experiment) that in the past a general rule would have been in place that demands any innovation-induced losses to be fully compensated. This would disregard the functional quality of certain losses (see section 2, above) and in any case stifle innovative activity (Witt, 1996). Given this likely consequence, would such a scheme have commanded the assent of a hypothetical IS? By way of analogy, one may imagine the impact of the opposite scheme, where no losses whatsoever would ever have to be compensated by anyone. The effect would have been similar (Hodgson, 1999, p. 248). These questions may then be repeated for alternative currencies of welfare, such as wealth, non-wealth resources, capabilities, happiness, etc.

Can we say anything substantial about the outcome of this procedure? Importantly, it cannot be expected to yield a unique optimum principle which would then determine the design of a welfare-maximizing institutional framework. As Schumpeter (1942, p. 251) argues, “to different individuals and groups the common good is bound to mean different things”. The IS approach accounts for this “fundamental fact” (ibid.) of value pluralism by virtue of being open to the “fresh wind” (Sen, 2009, p. 150) of different perspectives. We may, however, conjecture about the way a hypothetical impartial spectator would perceive the normative issues associated with creative destruction.

At the most basic level, these issues involve a quantitative (which amount of compensation?) and a qualitative (which kind of compensation?) dimension. As to the first one, we may presume that the two polar cases described above (full versus zero compensation) can be ruled out as highly implausible. People deliberating from an IS perspective may be conjectured to rather agree upon *some* amount of compensation to be accorded to the losers of evolutionary change. Otherwise, one of the two perspectives to be taken into account would be neglected. The IS cannot be assumed to simply eliminate the trade-off between short-term losses and long-term gains in this manner.

4.3. How to cope with Schumpeter’s trade-off

The more difficult question, though, concerns the currency of welfare in which this medium amount of compensation should be “denominated”.

In a setting where subjective preferences change endogenously, a reliable metric of welfare may be found in “objective” concepts, where welfare is defined, at least partly, independently of the individual’s subjective attitudes. The most promising candidate criterion is based upon the idea to define well-being in terms of an individual’s measurable chances or “opportunities” to increase her own quality of life in a self-chosen way.[39] Interestingly, in *CSD*, Schumpeter briefly refers to such a criterion: Capitalism, he says, “provides, to a much greater extent than most of us believe, the ladders for talent to climb” (Schumpeter, 1942, p. 188).[40] Curiously enough, he refers to this criterion as a "socialist" and "non-economic" ideal which – or so he seems to think – does not qualify as a proper standard of economic well-being.

Labels notwithstanding, a standard of opportunity resonates well with his own ideals about safeguarding the "knightly" element – represented by the entrepreneur whose motivation transcends utilitarian calculations – as furthering excellence and virtue (Shionoya, 1997, p. 295).[41] That is why such a standard provides an appropriate starting point for thinking about welfare in a "Schumpeterian" way. Things are facilitated by the fact that Schumpeter here anticipates an important development in modern normative economics. The idea to conceptualize well-being in terms of opportunity has recently been refined by Sugden (2004, 2007). In his approach, opportunity represents an individual's chances to satisfy her future preferences, whatever they may look like and however inconsistent they may turn out to be. Thus, this criterion is advanced as an answer to the challenges brought up by behavioral economics insights into the possible inconsistency of evolving preferences.

In light of this criterion, policy should aim at maximizing the capacity of the market to cater to any preferences individuals may have in future time periods, rather than at maximizing the amount of preference satisfaction actually realized at any given point in time. At first sight, this procedural nature makes the criterion a perfect candidate for assessing welfare in an evolutionary setting.

Sugden's specific way to conceptualize the opportunity standard, however, lacks plausibility in that it precludes any option to self-commit: Sugden assumes that when deliberating about their common rule framework, individuals would never agree upon binding their own future formation of preferences (with respect to private good consumption), even when anticipating the risk of forming ill-informed, irrational and inconsistent preferences when playing the market game. In light of recent insights by behavioral economics into the inconsistency of preferences this seems unconvincing. Put more generally, Sugden's approach neglects the varied ways individuals may respond to the insight that, when playing the innovative market game, their own preferences will evolve in mostly unpredictable ways.

An alternative way to accommodate Schumpeter's insight into the variability and contingency of preferences involves taking account of the psychology of individual preference formation. Generally speaking, this process starts early in life, on the basis of a few basic, genetically anchored needs, and leads, through associative and cognitive learning (based on communication with others), to a typically highly idiosyncratic set of learned needs and preferences, which tend to be quite refined. Over the course of a life-long learning history, the individual "specializes" in certain needs and acquires technological expertise in their satisfaction (Witt, 2001).

In Sugden's approach, this process is treated as a black box. It is implicitly assumed that (i) individuals acquire new preferences in an essentially random way, and (ii) that the process can be taken for granted. In fact, however, preference learning may take a variety of forms, some of which may be self-defeating. Consider addiction, but also the engagement in "status races" as examples (Frank, 1999; Cordes and Schubert, 2010): People may find themselves "trapped" in behavioral dynamics that amount to a treadmill, where any gain in (relative) well-being is immediately competed away by one's peers. While they may be seen as "learning" new preferences (for a bigger car, then for a bigger house, etc.), we submit that their kind of learning cannot be judged as being "effective" in promoting their well-being over time. Paraphrasing Knight (1923, pp. 14-15), in this setting newly acquired preferences do not serve as the basis for "further striving" towards genuinely *new* sources of satisfaction, but only as a means to play the same ineffective satisfaction game over and over again.

We submit, then, that this is the key to constructing a Schumpeterian concept of well-being: It should be conceptualized as the individual's ability (including her motivation) to engage in the ongoing learning of new preferences. From an IS perspective, individuals would deliberate about the welfare gains and losses of creative destruction (and the trade-offs involved) in terms of this currency of welfare. It is a procedural criterion that does, however, not disregard the material conditions necessary to maintain the individual learning ability. In particular, the criterion would indicate low levels of well-being if

(i) an individual is systematically deprived – due to either the lack of cognitive skills or the latent non-satisfaction of the most basic physiological and psychological needs – of even starting the process of learning new preferences,

(ii) missing markets (or markets with formally or informally discriminating entry barriers) make it impossible to acquire and try out new preferences, and

(iii) if due to adverse circumstances, an individual has so completely adapted to her situation that she has lost the courage to dream of new experiences.[42]

To illustrate, consider condition (ii). As Schumpeter (1942, p. 67) puts it, capitalism's key achievement does not consist "in providing more silk stockings for queens but in bringing them within the reach of factory girls" (see section 3, above). It is difficult to capture this intuition in terms of a static preference-satisfaction criterion, since in the pre-capitalist period 0 factory girls did not "prefer" something they had no conceivable chance to experience. In period 1 (early capitalism), they get the chance to try out the new good, i.e., to engage in effective preference learning. Even if in period 2, adaptation has led them to be somewhat bored with silk stockings, it would not make sense to conclude that their well-being has dropped back to the level of period 0. The preference-satisfaction metric, however, would signal exactly this, neglecting the fact that the factory girls have "moved forward" in a sense that is normatively relevant.[43, 44]

A second difference is even more important: According to our criterion, a high level of well-being is perfectly compatible with the non-satisfaction of particular preferences that are given at any specific point in time. Individuals anticipating the fact that their future preferences may be inconsistent – due to poor information, utility misprediction, biases or lack of willpower – will wish to maintain the ability to engage in preference learning in order to learn from the "mistakes" they expect to make over and over again. They wish to be actively taking part in the "market for preferences" (Earl and Potts, 2004). Temporary non-satisfaction is an essential element of such an extended, trial-and-error-based learning process. On the other hand, *systematic* non-satisfaction would indicate a decrease in well-being, due, for instance, to dysfunctional institutional choice environments (Anand and Gray, 2009; Beaulier and Caplan, 2007).

We argue that to define well-being as the ability to engage in effective preference learning accords with Schumpeter's normative intuitions, as described in the previous sections, for the following reasons:

- It accommodates the fact that preferences evolve in the process of economic development. Contrary to standard welfare economics, it implies the value judgment that preference change should not be seen as a source of potential inconsistency and inefficiency (an "anomaly") but rather as something to be desired and even fostered under the conditions of a "Schumpeterian" economy. This holds independently of whether we follow Schumpeter's argument that preferences follow (rather than drive) the process of technological change.
- It is compatible with Schumpeter's position that any amount of compensation for losses endured in the wake of creative destruction should not "impair the conditions of further economic development" (Schumpeter, 1942, p. 70). In fact, a rule framework that helps individuals maintain their ability to learn new preferences over time would, by fostering effective consumer sovereignty, promote the conditions for further development. The capacity of an evolutionary system to process decentralized knowledge and to generate novelty – its internal "source of energy" – is ultimately based on the effective capacity and motivation of individuals to acquire new wants and preferences.
- Finally, it accommodates Schumpeter's ideal of "excellence". An institutional setting that satisfies well-being in the sense suggested here gives people the opportunity to engage in entrepreneurial ventures, for whatever subjective reason.

In general terms, the criterion suggested here can be seen as measuring an evolving economy's capacity to adjust to unforeseen change in a way that relates to the individuals' well-being. New knowledge is, then, valuable to the extent that it facilitates and promotes the individuals' ability to acquire ever new preferences.

In allowing us to strike a balance between the gains and losses of evolutionary change, our concept of welfare can accommodate the wide-spread "unease" with the capitalist "drama" that Schumpeter was so keenly aware (and afraid) of. Compensating the losers of economic change by maintaining their ability (and motivation) to engage in further preference learning may slow the process of change somewhat, but, as Schumpeter knew, "motorcars are traveling faster than they otherwise would because they are provided with brakes" (Schumpeter, 1942, p. 89).

6. Concluding Remarks

Due to his ambition to understand the process of economic evolution as one "indivisible whole", Schumpeter could not help realizing the complex normative dimension of this process. This complexity is well reflected in the "stimulating ambiguity" (Baumol, 2001) inherent in the metaphor of "creative destruction". The poor state of the welfare economics of his time restrained him from translating his normative intuitions into a systematic theory. However, welfare economics has slowly moved forward, allowing us now to resume his project, i.e., to take his ideas as "an open system in the sense that it develops continuously as theory and historic knowledge progresses" (Stolper, 1951, p. 177).

His clear vision of the implications of the evolving economy endowed Schumpeter with a normative intuition that, despite its partial incoherence, was far ahead of the conceptual outlook of orthodox welfare economics. His deep skepticism towards the utilitarian legacy proved correct. In order to construct a concept of welfare that is compatible with an evolutionary view of the economy (in particular with the phenomenon of preference change), we have to move beyond the overly narrow confines of the preference-satisfaction account of welfare. We have suggested to replace this account by a procedural concept of "effective preference learning". It is evident that this concept requires much more elaboration until it can serve as a guide to evolutionary policy-making. That task must be left to future research, though.

Unfortunately, Schumpeter's interest in the matter turned out to be less salient to his readers than his reluctance to elaborate upon it. Hence, his legacy includes a lack of interest in the Neo-Schumpeterian camp to explore, as one of novelty's many implications, its normative dimension. Despite the fact that its practical impact on today's economies is as great as ever, “creative destruction” remains Schumpeter’s most widely quoted metaphor, but maybe also his least understood concept.

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1 Unfortunately, as Andersen (2009, p. 404) notes, Schumpeter failed to provide a precise definition of the term. See Andersen et al. (2006, pp. 5-9) on its history of thought background and range of semantic content. McCraw (2007, p. 504) sees "creative destruction" as "the most widely used metaphor in contemporary economic writing". On the general impact of Schumpeter's ideas on the economics profession see also Diamond (2009).

2 On the impact of innovation-induced growth on unemployment, see Boianovsky and Trautwein (2010).

3 See also (ibid., pp. 155-56).

4 "Evolutionary economics" here is meant to include Neo-Schumpeterian Economics (Hanusch and Pyka 2007a, 2007b). Policy-oriented contributions include, e.g., Ebner (2006), Dolfsma (2005), and Soete and ter Weel (1999). On Schumpeter's own political views, see, e.g., Medearis (1997), Shionoya (1997, ch. 11).

5 See Weber (1949) and, e.g., Schumpeter (1928, p. 382), Schumpeter (1949c). On Weber's general influence on Schumpeter, see Faucci (2007).

6 McCraw (2007, p. 169).

7 As Anderson (2009, p. 168) explains, "'[p]rogress' is for Schumpeter a synonym for an evolutionary process in which both technology and preferences change in a largely unforeseeable manner ... This means that statements about 'progress' ... do not have an easy interpretation in terms of social welfare." On this, see also Elliott (1991, p. 48).

8 Schumpeter in the preface of the Japanese edition of *TED*, as quoted by Swedberg (1991, p. 75).

9 On which see Becker and Knudsen (2002) and Peukert (2002). This important chapter was dropped from later editions and has only recently been "rediscovered" by the mainstream of Neo-Schumpeterian economics.

10 My translation from the German original. See also Andersen (2009, p. 89).

11 See also Andersen (2009, pp. 162-63).

12 See Schumpeter (1954, pp. 1071-1073): His dismissal of the criterion – a core concept of applied welfare economics – comes out clearly in FN 9 on p. 1072 ("a very artificial definition of what is meant by making 'society' better off"), his related "strong personal aversion" against utilitarianism on p. 133 ("shallowest of all conceivable philosophies of life") and p. 1153. See also Schumpeter (1942, pp. 127-129, 248-51).

13 This interpretation resembles Douglass North's concept of "adaptive efficiency" (North, 1990). In his view, in a dynamic economy social states should be evaluated according to people's willingness "to acquire knowledge and learning, to induce innovation, to undertake risk and creative activity of all sorts", all this in a society permitting a "maximum number of trials" in problem-solving (ibid., pp. 80-81).

14 The functionality of economic losses provided Schumpeter with cherished opportunities to shock his audience: Robert Heilbroner recalls him as stating, in class, that "[f]or capitalism, a depression is a good cold douche (sic!)" (Heilbroner, 1999, p. 291).

15 See FN 12 and the similarly motivated dismissal of the "whole of so-called 'welfare economics'" in Hayek (1978, pp. 90-91).

16 This exemplifies what Hirschman calls the "dolce vita scenario" of capitalist development: Individuals lose their "spirit of frugality", asking instead for "instant ... gratification" (Hirschman, 1982 p. 1468).

17 This political economy dimension of creative destruction is also emphasized in Schumpeter's book on "Business Cycles" (1939, Vol. I, pp. 240-44), cf. McCraw (2007, p. 257).

18 On the latent élitism in Schumpeter's work, see Andersen (2009, pp. 67-97).

19 This is of course also a key topic in the more sociologically oriented parts of *CSD*, particularly in chapters 12 and 13, colorfully entitled "Crumbling Walls" and "Growing Hostility". See also Schumpeter (1939, p. 1038), referring to New Deal policies in the U.S.: "Capitalism produces, by its mere working a social atmosphere ... that is hostile to it, and this atmosphere, in turn, produces policies which do not allow it to function."

20 Schumpeter speculates about the psychological basis of conservative resistance against novelty also when discussing the difficulty of performing the entrepreneurial role, in *TED* (see Fagerberg, 2003, pp. 131-32). Interestingly, he seems to anticipate behavioral economics insights into the "status quo bias" (Kahneman et al., 1991).

21 In Schumpeter's parlance, they may rather hold "an indeterminate bundle of vague impulses" (Schumpeter, 1942, p. 253).

22 See Schumpeter (1942, pp. 252-53, 269) for a blunt rejection of utilitarianism on these grounds.

23 Note that Buchanan's standard version of "Normative Individualism" is a far cry from what Schumpeter (1954, p. 888; see also Schumpeter, 1980, p. 3) defines, more narrowly, as "Political Individualism" (to be contrasted, in turn, with "Sociological" and "Methodological" Individualism).

24 In chapter 21 of *CSD*, where he sharply criticizes the "classical doctrine of democracy", he is even more explicit in dismissing "individualist utilitarianism" and its concept of the common good (Schumpeter 1942, p. 248).

25 Schumpeter considered the contingency of evolved preferences to be of utmost importance for economic theorizing: "[Is] it not time to investigate … how far the traditional and, in part, advertisement-shaped tastes of people are subject to the qualification that they might prefer other things than those which they want at present as soon as they have acquired familiarity with these other things?" (Schumpeter, 1949a, p. 380, FN 28).

26 Schumpeter's unease with the principle of normative individualism may have had a lasting impact on the Neo-Schumpeterian community: Hanusch and Pyka (2007a, p. 276), e.g., argue that in an evolving economy, the "normative principle" of policy-makers should be to foster "the future developmental potential of socio-economic systems"; accordingly, policy should try to remove the "constraints limiting the scope of economic development" (ibid.). As it stands, this is obviously a non-individualist position. Interestingly, at the end of the same paper the authors seem to rediscover normative individualism by introducing the Rawlsian "veil of ignorance" as a suitable tool to evaluate evolutionary processes (ibid., p. 284).

27 It is instructive to compare his extrapolation with the one made by Keynes ([1928] 1963) who famously predicted in 1928 that "the economic problem may be solved, or be at least within sight of solution" by the year 2028, when GDP per capita would be "eight times" higher than in 1928. In fact, seen from today, both Schumpeter and Keynes even underestimated the slope of the growth trajectories (Zilibotti, 2008).

28 The distributive criterion that is implicit here may be operationalized, for instance, by defining economic progress as a "significant long run increase in (average) per capita real income in all percentiles of the income distribution" (Witt, 1996, p. 116).

29 See also Witt (1996).

30 Both in *TED* and in *CSD*, he argues in favor of a broad notion of subjective "(consumer) want satisfaction" as the ultimate goal and criterion of economic activity (ibid., p. 65; Schumpeter 1942, pp. 66-67). Interestingly, he seems to be agnostic with respect to the issue – highly controversial within standard welfare economics - of whether it is possible to compare utility levels intra- and interpersonally (ibid.; Schumpeter, 1954, p. 1071; Haberler, 1950, p. 343).

31 Objective criteria of "productive efficiency" are also employed when Schumpeter, in *CSD*, compares the performance of modern (hence, "trustified") capitalism and socialism, arguing that "we shall call that system relatively more efficient which we see reason to expect would in the long run produce the larger stream of consumers' goods per equal unit of time" (Schumpeter, 1942, p. 190).

32 My translation from the German original. See also the brief description of mechanisms involved in the "reform of the human soul" (such as reconditioning or habit formation) in CSD (Schumpeter 1942, ch. 18.2)

33 These statements should then conveniently be labeled "instrumental" (Keynes, 1917). In his classic distinction between the positive, the normative and the instrumental ("art") branch of economics, John Neville Keynes (John Maynard's father) defines the latter as "a system of rules for the attainment of a given end", the object of it being "the formulation of precepts" (ibid., pp. 34-35).

34 By conceding that "errors of fact … enter into statements of particular reasons for ethical disapproval", Schumpeter ([1946] 1991, p. 204), if indirectly, accepts the possibility of making alternative normative statements the subject of scientific

discussion (on this, see also Nelson, 1977, pp. 148-49). At the same time, though, he seems to adopt an emotivist stance with respect to the status of moral judgments. This is introduced quite *ad hoc*: As to judgments on inequality, he argues that "in itself, disapproval of ... inequality from the standpoint of equalitarian ideals expresses nothing beyond the critic's personal feelings of fitness or justice" (ibid., p. 203). This would rule out the possibility of scientific ("rational") discussions about any elements of judgments of this kind. As we think that in general, Schumpeter holds a Weberian position on these issues, we will disregard this flirtation with emotivism.

35 It is true that Schumpeter repeatedly (if implicitly) criticizes individualist approaches to social philosophy. But he does so always in the context of more particular attacks on utilitarianism – as one possible individualist approach to human behavior or to well-being – and the specifically utilitarian concept of what constitutes a "good life". Compared to this, his critique of contractarian thinking – the second individualist exercise in normative theorizing – is rather mild. In any case, he apparently did not harbor much interest in social contract theory (see, e.g., Schumpeter, 1954, pp. 119-26).

36 We submit, then, that the following should be read as a descriptive account: "The freely voting rational citizen, conscious of his (long-run) interests, and the representative who acts in obedience to them, the government that expresses these volitions – is this not the perfect example of a nursery tale?" (Schumpeter, 1954, p. 429). It seems that Schumpeter himself was unsure about whether public reasoning can make a difference. On the one hand, he takes the participants' original preferences as pre-determined and immutable: "[P]reference plays so large a part in arriving at conclusions as to practical policy as it bends almost any analytical structure to its dictate." (Schumpeter, 1954, p. 133, FN 18). On the other hand, he advocates "moral reform" to salvage the capitalist civilization (Shionoya, 1997, ch. 11).

37 Nelson (1977, p. 78) recommends a variant of the impartial spectator model as a guide for public policy-making, without, however, elaborating upon it.

38 Schumpeter himself, although familiar with and sympathetic to Smith's *Theory of Moral Sentiments* (as evidenced in Schumpeter, 1954), seems to miss the breadth of the IS perspective when he writes: "Even if an observer from outer space would see in the results of successive phases of development ever more perfect phenomena, it is only *us* that can tell precisely whether *we* prefer the new to the old (Schumpeter, 1912 [2006], p. 493, my translation, italics in the original). But an impartial spectator is not an "evolutionist". In Smith's model, it is *us* who adopt the observer's viewpoint.

39 The happiness approach (e.g. Layard, 2006) and Sen's *capability* approach (e.g. Sen, 1988) would provide alternative objective metrics of well-being. As to the former, Schumpeter's consistent hostility toward hedonic utilitarianism (see, e.g., Schumpeter, 1942, 252-53) disqualifies it as a candidate for our purposes. As to the latter, note that note that (i) its underlying ideas hardly find an echo in Schumpeter's writings, and (ii) the variability of preferences – so important in

Schumpeter's account – features as a problem (namely, the "adaptation problem", see ibid.: 45-46) rather than as an inspiration. That is why we will not elaborate upon it further.

40 See also Schumpeter ([1946] 1991, p. 201), Elliott (1980, p. 55).

41 See Auerswald and Acs (2009) on the connection between entrepreneurship and the notion of defining well-being as opportunity.

42 This is the case described by Sen (1988, pp. 45-46), albeit with a different theoretical interpretation (see endnote 39, above). The adaptation problem may, however, also arise in developed countries, to the extent that welfare states are organized in such a way that short-term gratification biases are systematically favored over incentives to engage in long-term planning (see Beaulier and Caplan, 2007).

43 A further illustration is provided by the Economist (2011), referring to the study by Hamlett et al. (2008): "Supermarkets were often welcomed by younger and working-class women. A retired secretary interviewed by the project recalled, as a young bride, asking the butcher for a tiny amount of mince. 'Oh, having a dinner party, madam?' he sneered. A woman who bought anything expensive or unusual risked disapproving gossip, spread by shop assistants".

44 Consider Adam Smith's well-known remark – quoted approvingly by Schumpeter (2002, p. 112) that "it is in the progressive state, when society is advancing to further acquisition, rather than when it has acquired its full complement of riches, that the condition of the laboring poor ... seems to be the happiest and the most comfortable".