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Sustainable Well-Being: A Potential Synergy Between Sustainability and Well-Being Research

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This article outlines a potential synergy between sustainability and well-being research. Currently aims within well-being and sustainability research focus on increasing well-being. Firstly, sustainability is defined and important concepts within it highlighted, i.e. aims, interdependencies, constraints, values and balanced adaptive processes. It is suggested that positioning well-being more clearly within the sustainability framework can enhance the role of sustainability; for example, in terms of aims and monitoring progress. In turn, the sustainability framework outlined, guides the second part of the article, illustrating how it can reciprocally enhance well-being research. That is, comprehensive empirical, evolutionary, cross-cultural and self-conceptual evidence illustrate individuals' interdependencies with other people and nature. Despite this, contemporary hedonic and eudaimonic well-being approaches and accompanying measures are demonstrated to be isolating; investigating well-being individualistically and in a decontextualised manner. This is in line with the individualistic and independent values of Western cultures. Therefore it is suggested that employing the sustainability framework emphasizing interdependencies within well-being research can be beneficial; perhaps even resulting in an all-inclusive increase in well-being. Limitations are also raised and future research directions suggested. The author concludes that both sustainability and well-being research can benefit from the synergy towards sustainable well-being.

Keywords: Sustainable Well-being, Well-being, Happiness, Hedonia, Eudaimonia, Group Well-being, Sustainability, Interdependency, Balance

Sustainability research intends to inform policy making (e.g., Hezri & Dovers, 2009); as does well-being research (e.g., Diener & Seligman, 2004). Indeed, they share the aim to increase well-being. Herein, contemporary conceptualizations of sustainability and well-being are outlined with the aim to demonstrate how these two concepts can inform and enhance each other. Sustainability is defined and outlined, highlighting important concepts, i.e., aims, interdependencies, values, constraints and balanced adaptive processes. In an extensive review of sustainability research, Kajikawa (2008) concludes that current research presents only a weak link between the sustainability of society, lifestyle and individuals' happiness. Consequently, it is suggested that explicitly discussing types of well-being aims within the sustainability process, can enhance its current standing. Secondly, there will be a consideration of how sustainability can enhance well-being. Currently, "sustainable happiness" is conceptualized as being *within* an individual (Lyubomirsky, Sheldon, & Schkade, 2005) or as in the "pursuit of happiness"; aligned with environmental friendly behaviors (O'Brien, 2008). Conversely, sustainable well-being is proposed to be more closely aligned with sustainability research; emphasizing interdependencies of well-being. Comprehensive empirical, evolutionary and cross-cultural evidence support the importance of interdependencies with *others* and *nature*. In contrast, however, there will be a consideration of *how* current hedonic and eudaimonic well-being approaches can be seen as isolating; investigating well-being individualistically and in a decontextualized way. Therefore, it is suggested that well-being approaches can benefit from more holistically guided perspectives, through the outlined sustainability

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framework. Sustainable well-being is proposed to strengthen an all-inclusive increase in well-being.

The Sustainability Framework

Definitions, Values and Balanced Adaptive Processes

To fully appreciate the research on sustainability, it is essential to understand the depth and complexity of the concept. Lélé and Norgaard (1996) state that, sustainability lexically refers to "the ability to maintain something undiminished over some time period" (p. 355). However, they demonstrate that in a scientific context this seemingly straightforward definition leads to questions such as; what ought to be sustained, extending over what time period, through what social process and in exchange for which other socially desirable aims? Hence, the definition incorporates an "inextricable combination of value judgments, world views, and consensual knowledge" (p. 355). The definition suggested within the Brundtland Report (World Commission on Environment and Development, WCED, 1987) is often appointed to have initiated the current interest in sustainability. It states that sustainability entails development that "meets the needs of the present without compromising the ability of future generations to meet their own needs" (p.24). However, following the previous argument, this definition, evidently, incorporates value judgments too. Vucetich and Nelson (2010) clarify that depending on different societies' perspectives, sustainability can for example be interpreted to mean; "'exploit as much as desired without infringing on future ability to exploit as much as desired' to 'exploit as little as necessary to maintain a meaningful life'" (p. 540). Thus, the scientific aspiration of being objective is difficult to uphold.

As a result, however, literature on sustainability encourages an open discussion regarding values; in which scientists are urged not to "shy away" from social responsibility (Lele & Norgaard, 1996). Rather, Blackstock, Kelly and Horsey (2007) list reasons for the importance of all stakeholders' involvement; such as the facilitation of multiple perspectives and, thus, a deeper understanding of the process. In turn, these are assumed to improve; solutions selection, implementation of measures and conflict resolutions. Hence, even though the concept of sustainability is subject to objectively grey areas; the encouragements of explicitly discussing values can facilitate a deeper understanding on how systems work together.

With regards to the definitional vagueness of sustainability, Kajikawa, Ohno, Takeda, Matsushima and Komiyama (2007) optimistically point out that rather than being an obstacle, its broadness has encouraged and inspired a lively and diversified discussion. However, in response to the complexity and the values embedded within sustainability; Meppem and Gill (1998) assert the importance of approaching sustainability as an ongoing *learning process*. Here, learning refers to the acquiring of knowledge regarding "system cause and effect" (p.129). They hold that sustainable processes involve facilitating social processes based on constant feedback from systems' interactions. Sustainability is, thus, not depicted as a fixed state but rather "a balanced adaptive process of change in a multi-dimensional complex integrated system" (van den Bergh, 1996, p.5).

Interdependencies

According to Lélé and Noorgard (1996) the central contribution derived from the sustainability focus is the demonstrated importance of interdependencies between various processes and systems. O'Hara (1998) asserts that at times different systems are "not mutually compatible but in tension" (p.178). Moreover, Lélé and Noorgard (1996) state, that interdependency can result in circumstances "in which one person's well-being is sustained at another's cost" (p. 360). Thus, sustainability is not concerned with "a single activity in isolation" (Jensen, 2007, p.854). Incidentally, this issue has previously been raised as a critique of positive psychology and well-being research; wherein Lazarus (2003) argues that current approaches fail to adequately account for the social context that individuals act in. He states; "one person's happiness could be a major source of another's unhappiness, and the reverse could also be true, which... illustrates the role of the social context" (p.98). Thus, considering the centrality of interdependencies within sustainability, this focus can address Lazarus' (2003) concern through embodying a holistic and integrated systems approach. In presenting research on individuals' interdependencies with others and nature, a sustainability approach will, later on, be proposed as essential within contemporary well-being approaches. However, initially there will be a discussion on *how* well-being research can clarify and inform the aims within sustainability research.

Aims and Constraints

Aims are yet another important theme within sustainability research, but also a definitional controversy. That is, "the target of sustainability diffuses into environmental conservation, economic development, human well-being, and other goals" (Kajikawa, 2008, p.218). Accordingly, Dovers and Handmer (1993) declare that sustainability includes various contradictions and tensions; for example those between aims such as growth, reduction or equilibrium, or individual versus collective interests. They hold that these ought to be explicitly discussed. Importantly, however, Marcuse (1998) effectively clarifies that "sustainability is not a goal; it is a constraint on the achievement of other goals" (p.105). He asserts that within the aforementioned WCED (1987) sustainability definition, the general aim is *meeting*

the needs, whilst its achievement is to be executed within a sustainable framework or a constraint. What these needs are and involve is vital, however, they are often unspecified or poorly elaborated on within sustainability research.

Positioning Well-Being within Sustainability

Quantitative investigations on sustainability research demonstrate that the main fields predominantly concern environmental sustainability such as Agriculture, Fisheries and Forestry (Kajikawa, et al., 2007; Yarime, Takeda, & Kajikawa, 2010). However, among these different fields there is not yet any clear identification, link or integration of well-being research. Kajikawa (2008) asserts that a stronger link between current sustainability research and well-being "is desirable insofar as one of the ultimate goals of sustainability research is the pursuit of our and future generations' happiness" (p.230). Thus, it appears there is a clearly expressed need to incorporate a more extensive well-being perspective within sustainability.

Indeed, there are authors acknowledging well-being within sustainability. For example, O'Brien (2008) explicitly states, that "sustainable happiness is the pursuit of happiness that does not exploit other people, the environment or future generations" (p.290). However, she does not thoroughly discuss the nature of the "happiness" referred to. She instructively discusses factors that fulfill the criteria of both enhancing (subjective) well-being and being environmentally sustainable. For example, walking or cycling instead of driving a car is better for both the environment as well as an individual's physical and psychological well-being. O'Brien suggests that this ought to be thought of when planning cities, e.g. by increasing cycle lanes. These approaches, aimed at aligning behaviors with sustainability, address extremely vital aspects of progressing towards a sustainable future; and certainly deserve further attention. However, they do not currently position well-being within the deeper meaning of sustainability; and thus risk failing to reflectively incorporate its full nature.

Indeed there are sustainability definitions that attempt to explicitly include aspects of human well-being aims such as; meeting needs (WCED, 1987), happiness (O'Brien, 2008) and "adequate quality of life" (Oskamp, 2000, p. 496). However, more elaboration is required to determine, for example, the following; what needs are to be met (physical, psychological or both?), what type of happiness, and what constitutes *adequate.* Thus, it could be argued that these well-being concepts are poorly understood, conceptualized and elaborated on within sustainability research. The integration of current well-being and sustainability research is at best scarce. Hence, in accordance with those arguing for explicitly stating values embedded in sustainability research (e.g., Dovers & Handmer, 1993; Lele & Norgaard, 1996); it is argued here that a thorough understanding of sustainability, not implicitly but explicitly, ought to involve positioning human well-being *within* it. As Jickling (2000) asserts in terms of sustainability; "we need to speak more confidently about assumptions, lifestyles, worldviews, and conceptions of human place and purpose" (p.475-476).

Importantly, however, it is *not* suggested that a human well-being perspective should reduce attention away from, for example, environmental sustainability; nor, that sustainability "should first of all be an anthropocentric or non-anthropocentric concern" (Vucetich & Nelson, 2010, p. 541). A full discussion of the nature of anthropocentrism falls outside the scope of the current article. However, Winter (2000) points out, in addressing sustainability, that our problematic environmental situation is predominantly due to *human* activity, accompanied by related behaviors, emotions, thoughts, attitudes and values. Thus, since it could be argued that the pursuit of happiness in itself might be part of the source to unsustainable exploitation of other systems; human well-being research can add to the sustainability perspective.

Well-being approaches

Sustainability definitions that more explicitly include well-being concepts are required to recognize that there are several, and essentially different, theories of well-being. Ryan and Deci (2001) demonstrate that well-being has, in the last decades, been subject to increased empirical scrutiny. Specifically, they identify that conceptualizations of well-being originate from two different philosophical traditions; the hedonic and the eudaimonic approach. The centre of attention within the hedonic approach is happiness; where well-being refers to obtaining pleasure and avoiding pain. While the eudaimonic approach emphasizes self-actualization and meaning; whereby well-being is conceptualized as the extent to which an individual is fully functioning. How this distinction results in specific conceptualizations of well-being, its measurement and the ultimate aim and meaning of sustainability will now be illustrated.

Hedonic approaches. The hedonic approach encapsulates well-being as hedonic pleasures or happiness (Ryan & Deci, 2001). Boniwell (2007) affirms that this approach is currently particularly influential, through the subjective well-being (SWB) approach. SWB comprises three components; a cognitive dimension, called life satisfaction, and positive and negative affect dimensions (Diener, Suh, Lucas, & Smith, 1999). Normally, the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) is used to measure the cognitive

dimension. The affective dimensions are usually measured with emotion items lists such as the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) or the more extensive measure PANAS-X (Watson & Clark, 1999). High scores in life satisfaction and positive affect combined with a low score in negative affect are postulated to indicate high well-being. Kesebir and Diener (2008) emphasize that the nature of SWB, allows each individual to evaluate their own life in terms of happiness rather than "experts" imposing value judgments on what a good life entails, as in the eudaimonic tradition.

Eudaimonic approaches. As a challenge to the hedonic emphasis, eudaimonic approaches hold that not all desires or outcomes a person might value necessarily bring about well-being. That is, Ryan and Deci (2001) assert that eudaimonic approaches emphasize that well-being is more than pleasure, and encouraging individuals to recognize and fulfill their true potential. Influenced by this view, Ryff (1989) reacted to the heavy focus on the affective pleasure component and the atheoretical foundation of what characterizes a healthy and flourishing life within SWB. Thus, in reviewing previous literature she derived six dimensions reflecting psychological well-being (PWB). These six dimensions are; (1) self-acceptance, (2) positive relations with others, (3) autonomy, (4) environmental mastery, (5) purpose in life, and (6) personal growth. These dimensions constitute the Scales of Psychological Well-Being (SPWB; Ryff & Keyes, 1995).

However, Waterman (2008) argues for a more narrow definition of eudaimonia than that reflected within PWB. He holds that PWB rather involves general factors that correlate with eudaimonic well-being but not defining constituents. He conceptualizes eudaimonic well-being (EWB) "as a distinctive subjective state, [that] is seen arising from particular sources, that is, the pursuit of virtue, excellence, and/or self-realization" (p. 239). Based on this definition, Waterman et al. (2010) constructed a questionnaire aimed at measuring EWB. The Questionnaire for Eudaimonic Well-Being (QEWB) involves six dimensions; "(1) self-discovery, (2) perceived development of one's best potentials, (3) a sense of purpose and meaning in life, (4) investment of significant effort in pursuit of excellence, (5) intense involvement in activities, and (6) enjoyment of activities as personally expressive" (p.44).

The self-determination theory (SDT; Deci & Ryan, 2000) is yet another well-being approach, which is articulated coherently with the WCDC's aims regarding needs. Accordingly, it specifies the three basic psychological needs; autonomy, relatedness and competence, as minimum requirements for self-realization and psychological well-being (Deci & Ryan, 2000). These needs are seen as nutriments that, if satisfied, will allow people to flourish; but if not satisfied will undermine well-being (Ryan & Deci, 2000). SDT includes various questionnaires designed for different contexts, for example within relationships (La Guardia, Ryan, Couchman, & Deci, 2000) or at work (Deci et al., 2001).

This brief presentation of recognized, contemporary and empirical based well-being approaches aspires to demonstrate that these are both related yet distinct; and that they implicitly or explicitly put forward different approaches to the pursuit of well-being. In turn, this results in the inquiry of somewhat different questions regarding "the causes, consequences, and dynamics of well-being" (Ryan & Deci, 2001, p. 146). Explicitly, Ryan and Deci (2001) state that "how we define well-being influences our practices of government, teaching, therapy, parenting, and preaching, as all such endeavors aim to change humans for the better, and thus require some vision of what 'the better' is" (p.142). Arguably, this relates to sustainability insofar as it is important to know what its actual goals entail.

Benefits of Positioning Well-Being within Sustainability

Hopefully, it is highlighted how merely stating "well-being" or "meeting needs", without considering and providing a clear conceptualization of the application runs the risk of impeding the sustainability process. Thus, well-being research can clarify the aims of sustainability. This fundamentally relates to the existing recommendation to explicitly state and discuss values within the sustainability process. In addition, a clearer positioning of well-being within this process can facilitate the use of *validated* and *reliable* questionnaires accompanying discussed well-being approaches. These measures can both establish an individual's current fulfillment (or lack of fulfillment) of needs as well as any progress relating to well-being within the sustainability process. This would, to some extent, increase the validity of sustainability research. Moreover, with a meaningful well-being conceptualization, the plethora of preexisting research on well-being can be more readily integrated into the sustainability process.

That is, within the presented sustainability framework, aims are achieved in consideration of interdependencies i.e., an "all-inclusive" consideration. These interdependencies encourage discussion and explanation of values and tensions; that can be resolved through sustainability constraints within balanced adaptive processes that characterize sustainability. Indeed this represents a holistic perspective involving several systems. Accordingly, in addition to employing well-

being research to facilitate sustainability; it is argued that it is imperative that sustainability definitions and research include a clear and explicit understanding of the conceptualization of well-being used within the process. In turn, this can clarify values and the ultimate aims of sustainability; and further validate the sustainability process. Furthermore, a clearer link to well-being enables the sustainability process to monitor progress as well as draw on existing well-being research.

However, which conceptualization of well-being that should be used, cannot be properly discussed within this article. Besides, as well-being is a multidimensional concept including both hedonic and eudaimonic features (Ryan & Deci, 2001); both approaches might be required as constituents within the sustainability process. Furthermore, to effectively incorporate a more thorough understanding of well-being, this will optimally be approached within adaptive ongoing processes; wherein aims can consistently be challenged and revised.

How the Sustainability Framework can Enhance Well-Being Research

The mechanisms by which the outlined sustainability framework can enhance contemporary well-being endeavors will now be considered. Aims within well-being research will be compared with those of sustainability. Subsequently, interdependencies, and related sustainability concepts, will be linked to well-being approaches. Evidence supporting individuals' interdependency with other systems; firstly other people and secondly nature, will be presented. However, current well-being perspectives can often, due to embedded values, focus on the individual at the expense of these other systems. This is despite research calling attention to the need of balanced adaptive processes. Hence, it will be argued that well-being research can benefit from the sustainability framework outlined above; resulting in an all-inclusive increase in well-being.

Aims within Well-Being Approaches

Hedonic and eudaimonic approaches certainly express aims of increasing an individual's well-being. For example, in terms of an hedonic account, Lyubomirsky et al. (2005) suggest that "sustainable happiness" is possible. Notably, however, by *sustainable* they imply an increase and subsequent maintenance of happiness, *within* an individual. That is, they consider an individual in isolation from interdependencies of other systems. However, there are claims that eudaimonic approaches are more sustainable in nature. That is, Waterman (2007) claims that the eudaimonic approach lends itself to what he coins the "eudaimonic staircase" (p.612). He asserts that the opportunities to enhance eudaimonia, the self-realization and development of one's potential, are next to limitless; and thus can easily be sustained.

Thus, separately, sustainability and well-being approaches express aims in terms of increasing well-being. However, it can be argued that they differ, in that well-being approaches do not explicitly discuss interdependencies with other systems; and thus do not discuss sustainability and related concepts such as all-inclusive aims. Accordingly there will be a consideration of how both hedonic and eudaimonic approaches tend to conceptualize an individual's well-being in isolation; individualistically and in a decontextualized way, distinct from interdependent systems. However, to do so it is important to first consider evidence regarding the nature and importance of interdependencies for individuals.

Individuals' Interdependencies with Others

Empirical research demonstrates the importance of other people and a sense of belonging for individuals' well-being (e.g., Baumeister & Leary, 1995). However, current evolutionary and cross-cultural research elucidates the general lack, but also importance, of an adaptive blend of both individual and group perspectives in psychology. Essentially, evolutionary perspectives can both explain the roots of the current individualistic emphasis, whilst also elucidate the importance of employing both an individual and group level perspective. That is, Wilson, Van Vugt and O'Gorman (2008) state that "methodological individualism" (p. 6) dominates psychology. They identify the reason for this as originating from the consensus within evolution theory, in the 1960s; that natural selection is too weak to act on a group level and merely acts on an individual level. However, recent progress illustrates that evolution acts on multiple levels, i.e., not only between individuals but also between groups; a concept called multilevel selection theory (Sober & Wilson, 1998; D. S. Wilson, et al., 2008). Consequently, this urges reconsideration of the view of humans as rationally self-interested in their subjectively defined goals; replacing it with a more holistically complex picture that, for example, also includes human preferences for altruism, cooperation and morality (D. S. Wilson & Wilson, 2007).

In terms of the tension between the individual and the group, cross-cultural research further informs the current discussion. Representations of individualism-collectivism, concern variations in the extent to which individualism views individuals as independent and autonomous persons; whilst collectivism views individuals as interdependent and embedded within social relationships (Oyserman, Coon, & Kemmelmeier,

2002). Consistently Markus and Kitayama (1991) distinguish between self-construal of the independent self and the interdependent self. They illustrate that American culture assumes a more independent self concept wherein individuals seek independence from others by focusing on their self; emphasizing self-expression of uniqueness. Meanwhile, they also illustrate that many Asian cultures assume an interdependent self concept, wherein they emphasize relatedness and social embeddedness by fitting in with others.

Notably however, consistent with "methodological individualism", Brewer and Chen (2007) hold that even collectivism has been conceptualized individualistically; in which collectivism often refers to close relations with others and their narrowly defined in-group. Therefore, they assert a further distinction comprising individualism, relational collectivism and group collectivism (a broader sense of relational collectivism beyond close relationships). Importantly, they conclude that to manage complex and diverse demands within societies, *all* cultures involve elements of *all* three components; and it is important to understand their interrelationships.

Thus, contemporary and comprehensive, evolutionary and cross-cultural research indicates a current overemphasis on the individual; whilst calling for the need toward a more balanced perspective. That is, individualism and collectivism are associated with different favorable and unfavorable characteristics (e.g., Goncalo & Staw, 2006). In terms of attaining well-being, Haidt (2006) insightfully describes this tension:

> We were shaped by individual selection to be selfish creatures who struggle for resources, pleasure and prestige, and we were shaped by group selection to be hive creatures who long to lose ourselves in something larger. (p.238)

Thus, consistent with the sustainability framework, evolutionary and cross-cultural research emphasizes the importance of both independence and interdependence; involving tensions that are proposed to require balanced adaptive processes that can seek to reach a sustainable blend. However, a consideration of how current well-being approaches fail to account for this tension between the individual and others, will now be discussed in detail; beginning with hedonic, followed by eudaimonic approaches.

How well-being approaches overlook interdependencies with others

Hedonic approaches. With regards to hedonic approaches, focusing on positive and negative emotions, Lazarus (2003) instructively shows how the value-laden term *positive* does not consistently relate to all contexts and situations; and that categorizing accordingly "ignores or undervalues the distinctive adaptational import of each discrete emotion" (p. 99). Accordingly he emphasizes that there is always a social context to emotions. Thus, it is essential to recognize risks of oversimplify emotions with one static valence out of context. Indeed, it seems as though Fredrickson and Losada's (2005) conclusion regarding appropriateness of negative emotions might tap into this. They suggest that some "appropriate negativity" (p. 685) supports individuals' flourishing. Hence, it is essential to tease out and comprehend constituents and conceptualization of "appropriate" emotions.

However, in terms of appropriateness, the subjective experience is oftentimes measured without taking into consideration the actions that the emotion derives from or may lead to (e.g., within PANAS(-X), as further discussed below). Put simply, someone's happiness can lead to or come from another's unhappiness. Thus, failing to incorporate this can certainly be considered an (isolated) individualistic perspective. Furthermore, there is little research investigating risks associated with positive emotions. However, research on gambling reveals that initial positive emotions when winning enhance the danger for future reckless gambling (Cummins, Nadorff, & Kelly, 2009). This demonstrates the importance of considering societal contexts in the generation of emotions. Furthermore, it illustrates that appropriateness of emotions also relates to "positive" emotions. Thus an oversimplified view of emotions fails to attain meaningful evidence applicable within a real-world context; hence the interdependent perspective within sustainability can address this.

PANAS(-X). In terms of measuring emotions, it could further be argued that despite the argument that SWB is "objective" by allowing respondents to define happiness, the affective items included within the list of items involve "a response set problem (the influence of the number of items checked)" (Zuckerman & Lubin, 1990, p. 24). This makes it important to know how the affective items were originally chosen. Unfortunately, the original categorizing is ultimately referenced as unpublished material; and their method is not adequately shown or discussed (Watson, Clark & Tellegen, 1988; Zevon & Tellegen, 1982). Thus, it is somewhat unclear on what basis and through what methods the original items were selected. Furthermore, Watson and Clark (1999) briefly state that the "primary concern was to select descriptors that were relatively pure markers of either Negative Affect or Positive Affect; that is, terms that had a substantial loading on one factor but a near-

zero loading on the other" (p.2). Conversely, it could be argued more important to, for example, ensure a wider representation of the human emotional repertoire.

Christopher (1999) holds that the emotion selection is according to a Western culture formation. This includes two dimensions; pleasant/unpleasant and low/high energy. However, he also points out that more collectivistic cultures, e.g., Japan, display a third dimension involving ego-centered versus other-centered emotions. Essentially, he identifies that there is an exclusion of items relating to an individual's relationship with others. Furthermore, the emotion items are mainly presented without any context. However, one category, with three items is an exception within PANAS-X, in which the self is provided as the context, i.e., "angry with self" (Watson & Clark, 1999). Noteworthy, the reason for contextualizing this group is not discussed. Considering that it is only the self being contextualized further strengthen the argument regarding the individualistic nature of PANAS(-X); whilst the absence of additional contextualization, such as with others, strengthens the argument regarding decontextualization. Thus, it could be argued that this atheoretical approach might have contributed to an individualistic and decontextualized bias in terms of others.

Satisfaction with life. In demonstrating how satisfaction with life might be conceived as individualistically biased, it is helpful to look more closely at its definition. Centrally, for the SWLS, Diener et al. (1985) endorse Shin and Johnson's (1978) definition of life satisfaction as "a global assessment of a person's quality of life according to his chosen criteria" (p.71). However, there might be two issues relating to values being implied and imposed within this definition; and the measurement execution. These involve; i) the emphasis on individualistic values in terms of "his chosen criteria", and ii) limiting respondent's cognitive well-being experience to *only* report satisfaction, which might implicitly stress manipulation of the natural and social surroundings as reflected in the articulation "according to".

In terms of the first issue, SWB claims it is objective and value neutral, allowing the individual to decide what well-being is (Kesebir & Diener, 2008). However, as a consequence, no additional information is supplied than the respondent's subjective experience, i.e. nothing is known about causes, consequences and the dynamic behind the happiness (Waterman, 2007). That is, the individual is investigated in isolation. Furthermore, Christopher (1999) points out, that SWB reflects the individualistic nature of Western cultures given that it "places the onus of well-being on the individual" (p. 143), without relying on any criteria or norms. Consequently, Van Deurzen (2009) holds that the current conceptualization of happiness seems to measure individuals' quality of life instead of a more moral conceptualization of happiness. She states that it "looks awfully like we are measuring people's smugness with being well off" (p.70). Thus, the emphasis on own criteria is aligned with Western cultures' individualistic values; but opposing the multilevel selection theory. Individuals are encouraged to decide what well-being is, without considering what the consequences might be for others. Additionally, this might be further strengthened by Western society's prevailing attitudes towards others i.e., being less important than striving towards the independent self (Oyserman, et al., 2002); rather than seeking an adaptive balance.

In terms of the second issue, the importance of an individual's satisfaction being aligned to their expectations; could be argued to represent only one part of well-being. For example, Delle Fave, Brdar, Freire, Vella-Brodrick and Wissing (2011) requested 666 participants from seven Western countries to answer open-ended questions about defining happiness. The analysis revealed that the best fit was to psychological balance. Harmony was not connected to satisfaction; 25% of the answers defined happiness as concerning balance/harmony, whilst only 7% of the answers defined happiness in terms of satisfaction. Thus, their results suggest that satisfaction is only one part of well-being; and that happiness can primarily be defined as a condition of psychological balance/harmony. However, in terms of the SWLS, one might argue that satisfaction can encompass balance/harmony, i.e., one can be satisfied that one's life entails balance/harmony.

However, considering the underlying difference between these two concepts; the framing of the items tapping into each concept might be fundamentally different in character and focus. That is, the definition of, and items regarding, satisfaction involve an emphasis on expectations. Meanwhile, balance/harmony as identified by Delle Fave et al. (2011) reflects "the perception of harmony at the inner level, as inner peace, self-acceptance, serenity, a feeling of balance and evenness" (p.199). In short, the difference is that balance/harmony involves inner peace and a sense of being attuned with the world; rather than the outer world meeting one's expectations. Furthermore, "harmony is a process rather than a state; it is the dynamic harmonization of various aspects and components of a whole" (p.199); whilst Diener et al. (1985) conceptualize satisfaction as being about "present state of affairs" (p.71). Hence the underlying differences might be considered distinctly different; and thus call for distinct well-being items. The SWLS appears likely to encourage the individual to put themselves and their expectations first rather than allowing for an adaptive balance of both satisfaction

and balance/harmony. Furthermore, measuring satisfaction whilst neglecting balance/harmony, might crucially relate to the issue that one person's satisfaction can result in another person's dissatisfaction.

To summarize, SWB provides, in part, important information in terms of individuals' experiences. However, within a social context, high SWB is neither a necessary nor a sufficient, but rather it can be a facilitating condition for beneficial (or sustainable) outcomes. SWB fails to recognize the whole picture of human well-being; and thus might not enable maximization of well-being. Rather, this lack of understanding and accounting for interdependencies with others can result in alienation of individuals. Thus, the alarming risk is that both the affective and cognitive components within SWB might reflect, and perhaps even reinforce, detachment from others. Addressing this tension is concurrent with the sustainability framework; and seemingly important for sustainable well-being. Therefore, a sustainable well-being perspective calls attention to understanding the situation preceding and following satisfaction and any emotions. This includes research methods that demonstrate and account for social implications of these.

Eudaimonic approaches. In terms of the current conceptualizations of eudaimonic approaches, there is a criticism regarding its focus on the individual at the expense of others. For example, Christopher (1999) instructively illustrates how PWB, with its main focus to increase an individual's potential, reflects Western's individualistic values. Furthermore, Buunk and Nauta (2000) state that "SDT implies a strongly *intraindividual* perspective" (p.280) that fails to sufficiently account for social context of human behaviors.

Others. Nonetheless, eudaimonic, compared with hedonic, approaches tend to involve a greater emphasis on others. This is reflected in the dimensions; positive relations with others (PWB; Ryff, 1989) and relatedness (SDT; Deci & Ryan, 2000). However, Christopher (1999) points out the importance of recognizing the "significant difference between having relations with others and being psychologically constituted by one's location in a social network" (p.147). He argues that the component regarding positive relationships could be perceived as individualistic because it stresses self-interest. Subsequently, he argues that PWB focuses on the individualistic self that engages in relationships with the self-centered aim to attain satisfaction of psychological needs such as relatedness or intimacy; rather than the self being metaphysically connected, so that their identity incorporates others.

Furthermore, both SPWB (Ryff & Keyes, 1995) and SDT scales (e.g., La Guardia, et al., 2000), as reflected in the items, seem to employ a rather narrow definition of others. These predominantly concern *close* others, such as family and friends; rather than also incorporating items addressing a wider sense of others or humans in general (as in group collectivism). In terms of EWB, Waterman (2008) does "not see 'feelings of belonging' as a construct integral to eudaimonic functioning" (p.247); but rather as correlates with eudaimonic well-being. Hence, eudaimonic well-being approaches tend to either exclude or define others narrowly with a strong focus on the respondent's terms and conditions. Notably, this is according to relational rather than *also* incorporating group collectivism.

Isolated meaning. In addition, eudaimonic approaches currently stress individualistic values considering, for example, the *strong* focus on an individual's *self-chosen*; purpose in life, self-actualization, or personal growth (PWB; Ryff, 1989). That is, Christopher (1999) illustrates that PWB predominantly concerns "the means of satisfying subjectively defined goals and purposes" (p.148) without addressing *type* of purpose or moral vision. The focus is on the (individualistic) self being expressed, without any societal or moral concerns of *how* it is expressed. In turn, this might be at the expense of both close others and others in a wider sense. This appears to also hold true for EWB, considering the emphasis on *self-chosen*; self-realization, personally meaningful objectives, or self-expressiveness (Waterman, et al., 2010). Furthermore, Buunk and Nauta (2000) point out that SDT holds that the needs for *autonomy* and *relatedness* do not necessarily have to be incompatible but that the dual-concern model (that distinguishes between "concern for own goals" and "concern for goals of other's"), clarifies that they can perhaps be incompatible in situations of conflicting interests between individuals. Thus, within these approaches the focus is on the self; that is encouraged to decide for itself in isolation from others; individualistically and out of context. These views are, however, in clear contrast to the idea that, in general, life is lived, and many goals achieved, in coexistence and cooperation with others; which is coherent with the multilevel selection theory.

Thus, eudaimonic well-being research demonstrates indeed the importance for an individual to feel like a causal agent with purpose in life, autonomy et cetera. However, eudaimonic approaches currently fail to illustrate how these individualistically orientated expressions can coexist as an adaptive balance with the concerns for others; or be incorporated in a deeper sense of a wider sense of belonging. Eudaimonic approaches do not adequately deal with tensions or conflicts that might occur between an individual and others, or individualistic and societal aims. However, as a contrasting

example, Markus and Kitayama (1991) state that:

> Among those with interdependent selves, self-verification and self-actualization may even be achieved through the realization of some more general, abstract forms of relation, that is, one's relationship to or one's role in society or even in the natural or cosmic system. (p. 245)

In terms of others, it is demonstrated how curren hedonic and eudaimonic approaches can be considered as individualistic and decontextualized; aligned with Western individualistic values. This is *not* to say that these approaches are all bad, or to say that the individual is not important at all. However, current well-being approaches do not effectively illustrate how to bridge individual with group well-being. That is, there is scope for sustainable adaptive processes, explicitly dealing with the described tensions and values; integrating the individual and group perspectives in order to facilitate an all-inclusive increase in well-being.

Individuals' Interdependencies with Nature

So far the focus has been on humans and how they relate to each other. However, the broad framework of sustainability also involves emphasis on interdependencies with other systems. Therefore, the importance of nature in terms of individuals' well-being will now be considered. It will be illustrated how nature is currently predominantly conceived as a commodity; albeit theoretical and empirical research indicate it also incorporates intrinsic values for human well-being. Despite this, it will be demonstrated how current well-being approaches might isolate individuals from nature, in an analogous manner as previously demonstrated in terms of other people.

Fulfillment of many human basic needs is satisfied through resources drawn from nature; such as water, food, and material. Indeed, sustaining the health of nature is essential for human physical and psychological well-being (Nisbet & Gick, 2008). However, many natural resources are currently exploited and polluted systematically; where alarming sustainability research illustrates the depletion of the environment, predominantly due to human activity (Winter, 2000). Also, increased depletion of natural resources ultimately leads to the failure to meet future human basic needs. Consequently, this involves the risk of impeding an all-inclusive increase in well-being; or even eventually, resulting in decreased well-being.

A prevailing underlying reason for this alarming situation is attributed to the current human-nature relationships that largely conceptualize nature according to its instrumental value, as a mere resource of utility or commodity (Gomez-Baggethun, de Groot, Lomas, & Montes, 2010; Kosoy & Corbera, 2010; Note, 2009). Meanwhile, a plethora of authors arguing for the importance of employing multiple approaches to valuing nature and acknowledging its intrinsic values (e.g., Eichner & Pethig, 2006; Gomez-Baggethun, et al., 2010; Kosoy & Corbera, 2010). For example, Note (2009) argues for the value of a "broadening of our perception, so that nature may appear to us not primarily as a commodity but foremost as an inspiring source of meaningfulness that at the same time appeals to our ethical ability" (p.279).

There are indeed theories specifically addressing the human-nature relationships, both based on evolutionary and self concept perspectives. The biophilia hypothesis emphasizes the role of nature in human evolutionary development. E. O. Wilson (1984) argues that the biophilia hypothesis encompasses an "innate tendency to focus on life and lifelike processes" (p. 1). As such, E. O. Wilson (1993Stacks GF21; B56X 1993 (LC) suggests that biophilia developed through natural selection within a cultural context. However, he also stresses that biophilia is still only a hypothesis; whilst holding that even without any supporting evidence, considering the significant period in which humans have been in deep and intimate relationships with nature, the hypothesis makes sense based on evolutionary logic. Furthermore, Gullone (2000) emphasizes its proposed importance for human well-being; in terms of individuals having close and meaningful relationships with nature.

Analogous with the biophilia hypothesis; Bragg (1996) highlights the strong theme within environmental philosophy and ecopsychology concerning, what Naess (1985) coined, the "ecological self". This refers to a shift from a personal narrow sense of self, consistent with current Western individualistic perspectives; towards a broader sense of deep unity with the external ecological world. This view is congruent with the interdependent self; but "interdependence simply needs to be extended from the relationship with 'others' (meaning certain human beings) to 'all life forms, ecosystems and the planet itself'" (Bragg, 1996, p. 100). Indeed, these views assert the importance of an individuals' perception of self in terms of emotions, behaviors, cognitions, and motivation; and that subsequently a broadening of self towards surroundings can increase a more responsible approach towards nature (Bragg, 1996).

The biophilia hypothesis and the ecological self, certainly indicate that a connection with nature is essential for psychological well-being. Furthermore, recent empirical research also supports the importance of nature for human well-being (Barton & Pretty, 2010; Bowler, Buyung-Ali, Knight & Pullin, 2010; Matsuoka,

2010). Thus, nature is an important commodity *and* possesses intrinsic values for human well-being. Furthermore, meaningful human-nature relationships appear important for the preservation of nature. However, it will now be considered how the interdependent human-nature relationships might be poorly integrated within human well-being approaches. This concerns how individuals, again, are investigated in isolation. Importantly, this is both based upon and builds upon, the previous section on others. Thus, it is valuable to keep in mind that these arguments often relate to both others and nature; since the underlying themes, such as belonging and context, are in essence comparable.

How well-being approaches overlook interdependencies with nature

Hedonic approaches

PANAS(-X). In terms of SWB, the previously discussed atheoretical items selection approach within PANAS(-X) might also relate to nature. For example, respondents lack the alternative to report awe and wonder. That is, in terms of human-nature relationships, Ashley (2007) compared definitions of wilderness spirituality, held by experts and the general population. This revealed that awe and wonder were perceived as important elements by the general population, but not by the experts. Again this shows the importance of involving all stakeholders in defining concepts; and not only experts (like with balance/harmony, as previously discussed). In addition, awe and wonder have also featured as significant aspects of human-nature relationships in other studies (e.g., Curtin, 2009; Shiota, Keltner, & Mossman, 2007). Thus, it could be argued that these emotions represent important aspects of the human-nature relationships, that are not currently reflected in PANAS(-X).

Furthermore, as the self was only contextualized with anger; PANAS(-X) excludes items contextualized with nature. However, Kals, Schumacher and Montada (1999) establish the concept of "emotional affinity toward nature"; which embraces a range of inclinations towards nature; for example love of nature. Kals and Maes (2002) further clarify that this concept includes various nuances of the human-nature relationships, such as feeling oneness to nature and feeling good, safe and free in nature. Importantly this illustrates the importance of contextualizing emotions. For example, Kals, et al. (1999) put forward evidence illustrating that those individuals reporting a higher degree of emotional affinity toward nature and emotional indignation about insufficient nature protection, demonstrate more environmental friendliness, willingness and coherent behavioral decisions. Notably, this also demonstrates how the "negative" emotion of indignation can lead to beneficial outcomes for nature.

Indeed, Kals, et al. (1999) hold their results coherent with the biophilia hypothesis; whilst Kals and Maes (2002) assert that emotional affinity toward nature also relates to the ecological self. Hence, excluding these emotions fail to represent a broad emotional repertoire and risk hindering the process towards biophelic and ecological self expressions. Thus, PANAS(-X) is not equipped to meaningfully account for interdependencies. In turn, considering that sustainable environmental behaviors are predicted from these types of emotions, neglecting these emotions can thus fail to promote the all-inclusive increase in well-being. Instead, there is a risk that this neglect further isolates individuals away from nature.

Satisfaction with life. In terms of satisfaction with life and the SWLS, the balance/harmony category could also be argued to relate to nature. That is, SWLS encourages individuals to manipulate nature according to their criteria, without considering the consequences. This might also be further strengthened considering prevailing attitudes toward nature. That is, subjective satisfaction (and expectations) is encouraged in combination with perceiving nature merely as a commodity, and the concern of weakened human-nature relationships. In order to further elaborate and expand on this; satisfaction including the SWLS and balance/harmony will be discussed alongside the eudaimonic approaches, in terms of primary and secondary control.

Eudaimonic approaches and satisfaction with life

Within the eudaimonic approaches, the emphasis on self-expression and self-realization of individuals' needs and attributes could be argued to isolate individuals from nature. That is, the QEWB and its underlying theory isolate individuals through emphasizing e.g., self-expression, whilst the basic need of relatedness within SDT refers to narrowly defined close others; but not nature. However, within PWB, the dimension environmental mastery apparently acknowledges the importance of nature. This dimension is conceptualized as the "ability to choose or create environments suitable to his or her psychic conditions" (Ryff, 1989, p. 1071). Indeed, the definition emphasizes "choose or create" as being associated with satisfaction, rather than, for example, the ideas of being tuned in with one's surroundings. Christopher (1999) points out that this dimension is highly influenced by an individualistic world view; originating from Enlightenment. Herein, the world is not ascribed with any deeper purpose or meaning than to be instrumentally manipulated, controlled or mastered by individuals. Notably, this is coherent with the discussed

nature commodity perspective and associated issues.

Primary and secondary control. Christopher (1999) asserts that environmental mastery is biased towards primary control rather than additionally involving secondary control; as first distinguished by Rothbaum, Weisz and Snyder (1982). According to them, primary control addresses an individual's ability to change the environment according to their wishes (concurrent with satisfaction); meanwhile secondary control refers to an individual's ability to align or adjust oneself with the environment (concurrent with harmony/balance). In a recent review, Morling and Evered (2006) provide further support for this distinction. They specify that secondary control is best conceptualized as "fit focused", involving two processes; "adjusting the self and accepting the environment unchanged" (p.280). They conclude that both control processes are essential in terms of individuals' well-being; "primary control is well-suited for serving a human need for control, whereas fit focused secondary control serves needs for belonging or consistency or leads directly to well-being" (p.292). This further supports Weisz, Rothbaum and Blackburn's (1984) finding, illustrating the need for an "optimally adaptive blend of primary and secondary control" (p.955); again, this tension illustrates the need for balanced adaptive processes.

However, in concordance with previous arguments; Weisz et al. (1984) point out that Western psychologists have predominantly addressed an individualistic view. That is, with main attention and encouragement of primary control; at the expense of secondary control. For example, the basic need of competence; being a causal agent with clear roots from self-efficacy within SDT (Deci & Ryan, 2000), reflects primary control. Indeed, Morling and Evered (2006) assert that individuals in cultures that "emphasizes individualism, independence, and autonomy may be more compelled to control the environment via personal primary control, as personal primary control highlights the self and its preferences as a causal agent" (p. 289). In contrast, for example, with regards to the ecological self, Bragg (1996) asserts that those individuals that extend their self towards nature "might start to feel good about themselves because of their ability to adjust and maintain harmony with their environment, rather than their ability to express themselves" (p.101).

Considering the plethora of research on the importance of human-nature relationships, it could be argued that well-being theories should not imply that humans are isolated; as if individuals can get along without nature (or others). This is in clear contrast to the eudaimonic emphasis on, for example, self-expression or narrowly defined others. On these grounds, it could be argued that eudaimonic approaches are biased towards an individualistic, primary control perspective.

Markedly, the primary and secondary control distinction fits well with the satisfaction and balance/harmony distinction, respectively. For example, the SWLS item: "So far I have gotten the important things I want in life" (Diener, et al., 1985, p. 72) appears to reflect changing in accordance with one's wishes; and hence the current emphasis on primary control. That is, instead of adjusting oneself and accepting the environment or being tuned in with surroundings, as the secondary control and balance/harmony perspectives would suggest. In addition, considering the similarities between these distinctions, it could perhaps be argued that the eudaimonic approaches highlighting primary control, also embrace a bias towards individuals' satisfaction rather than balance/harmony. Furthermore, in terms of the affective component of SWB, McDowell (2010) asserts that PANAS resembles the eudaimonic approach with items reflecting enthusiasm and alertness. However, items reflecting balance/harmony or secondary control; such as feeling tuned in and in harmony, is not included. Hence, SWB also appears to overemphasize primary control whilst neglecting secondary control.

Interdependencies within Balanced Adaptive Processes

Importantly, the intent herein is *not* to prove that current well-being approaches lack any worth. Rather the purpose is to address their current shortcomings; and thus illustrate benefits of a sustainable well-being approach. It is illustrated how both hedonic and eudaimonic approaches can be considered individualistic and decontextualized in terms of both nature and others. Essentially, it is demonstrated how well-being theories are inherently culturally rooted and indeed incorporate values that ought to be more transparent. It is demonstrated how selection of emotions, satisfaction and balance/harmony as well as primary and secondary control relate to this. It could be argued that the predominant view of seeing the individual first and the group second, as well as the view of nature as a sole commodity rather than also including intrinsic values, are reflected in and even reinforced by current well-being theories. Importantly, however, sustainable well-being highlights the possible impediment of an all-inclusive increase in well-being, if the environment is destroyed or others alienated. This sustainable well-being perspective goes further than those advising to merely align current conceptualization of the pursuit of happiness or employ this pursuit to motivate environmentally friendly living (e.g., O'Brien, 2008); it proposes a position that further emphasizes and incorporates the interdependencies of

well-being. Thus, rather than only being sensitive to subjective satisfaction or self-expression, this suggests simultaneous sensitivity to and incorporation of interdependencies; within balanced adaptive processes.

The Sustainable Well-Being Framework

Here follows an outline on how the synergy between sustainability and well-being research is proposed to bring about sustainable well-being.

Aims

Separately, both sustainability and well-being research specify aims of increased well-being (e.g., Kajikawa, 2008; Lyubomirsky, et al., 2005). It is illustrated that well-being research can, to some extent, enhance sustainability research; for example in terms of clarifying aims and monitoring progress within sustainability processes. Simultaneously, the sustainability framework can facilitate an all-inclusive increase in well-being by sufficiently accounting for interdependencies and related concepts of sustainability.

Interdependencies

In accordance with sustainability research, the presented empirical, evolutionary, cross-cultural and self-concept based research, indeed indicates the importance of interdependencies for individuals and their surroundings. Importantly, Markus and Kitayama (1991) state:

> Being dependent does not invariably mean being helpless, powerless, or without control. It often means being interdependent. It thus signifies a conviction that one is able to have an effect on others and is willing to be responsive to others and to become engaged with them. In other words, there is an alternative to selfishness (which implies the exclusion of others) besides selflessness (which is to imply the exclusion of the self or self-sacrifice): There is a self defined in relationship to others. (p.247)

This focus addresses Lazarus (2003) critique of positive psychology and well-being research, and relates to Lélé and Noorgard's (1996) optimism that sustainability highlights that one person's happiness can be another person's source of unhappiness. Therefore, it is important to consider the type of well-being that is being theorized, measured and promoted; which can be addressed within the sustainability framework.

Values

Values within sustainability processes are emphasized to be explicitly discussed; furthermore it is illustrated that conceptualizations of well-being inherently incorporate values. These values ought to be explicitly discussed and transparent. This is not to suggest that researchers should dictate these values. However, as urged within sustainability, they should not "shy away" from their responsibility either (Lele & Norgaard, 1996). Therefore, research is encouraged to develop methodologies investigating and informing about causes, consequences and the dynamic of different forms of well-being in terms of various systems. In addition, it is important to recognize that needs in societies will always change and that "constant vigilance" and openness to adjusting and developing values is important within societies (Prilleltensky, 1997). In accordance with the sustainability framework, it is therefore important that all stakeholders take part in an ongoing process of conceptualizing and refining our emerging thoughts of what a "good life" and well-being entail, as well as what is "right".

Constraints

The sustainability framework is proposed to address tensions within current well-being endeavors. In terms of resolving interdependent tensions, this might involve constraints based on social and natural contexts of interdependencies. These can in some cases infringe on individual freedom; however, importantly these are seen to strengthen an all-inclusive increase in well-being in the long term. Notably, since *constraints* might imply negative connotations of limitation, perhaps it can also be conceptualized as *catalysts*. Within the sustainability framework, one may encourage research and discussion of the character of the constraints/catalysts, wherein explication of values within well-being research is central.

Balanced Adaptive Processes toward an All-Inclusive Increase in Well-Being

There are several conceptualizations of well-being presented herein, and indeed the complexity of well-being likely involves elements of all these. Thus, it is time that we start to think about how these can be reached in a favorable manner. Sustainable well-being involves defining well-being in terms of its relationship with other systems, which as a result, involves tensions of balancing the focus between the individual and these other systems. Thus, sustainable well-being addresses multiple perspectives; which require balanced adaptive processes attuned with systematic feedback. Hence, this sustainable well-being approach attempts to provide a framework that facilitates focusing on

and investigating the interdependency of well-being; illustrating and hopefully resolving, how different conflicts and tensions impact systems. Therefore, sustainable well-being does not represent a fixed state but rather reflects holistic and ongoing adaptive processes.

Limitations and Future Research

The current approach is limited insofar as it currently does not provide a rigorous empirical investigation; but rather represents a proposed framework. Hence, this requires further research and subsequently clarification, revision and deeper understanding. In terms of limitations, and also a suitable research direction, concerns the inclusion of an economic account. Within sustainability, economy is considered an important system, besides the social and natural systems (Kajikawa, 2008). However, given that individuals relate to others and nature in a concrete and physical way, economy is different. Nonetheless, in relation to well-being, economy can indeed function as a supporting and regulative system. Cafaro (2001) asserts that, current well-being approaches exclude economics even though ancient theories, for example by Aristotle, illustrate interests and attempts to integrate this aspect. Hence, an economy influenced account is believed to fit well and add to the holistic aims of sustainable well-being.

A broader positive psychology perspective could also enhance and strengthen the current sustainable well-being framework. An example might perhaps be to question the individualistic and decontextualized nature of only promoting an individual's top five strengths (Peterson & Seligman, 2004); rather than facilitating and enhancing all of them. Indeed, Schwartz and Sharpe (2006) assert the importance that individuals know *how* and *when* to apply *all* strengths within a social context.

The current sustainable well-being framework is based on comprehensive evolutionary, cross-cultural and self-conceptual research, illustrating the importance of interdependencies. However, it is mainly approached from the existing state of well-being theories. This thorough demonstration was perceived important to fully comprehend the current rather one-sided well-being perspectives; and thus appreciate the need for sustainable well-being. Furthermore, this article targets a mixed audience; involving both sustainability and well-being related interests. However, this framework would also benefit from including and drawing on perspectives from existing theories that embody an interdependent world view; such as Confucianism or Buddhism (e.g., Li & Moreira, 2009). Indeed, as a last limitation, the proposed approach is positioned within the complexity of both sustainability and well-being research. In turn this suggests several challenges that most likely will at times feel discouraging and frustrating. However, considering both practical suggestions herein and the beneficial effects of the proposed all-inclusive increase in well-being; it will most likely be a rewarding process.

Conclusion

Sustainability and well-being approaches have the aim to increase well-being in common. The first part of this article identifies important aspects of sustainability whilst demonstrating *how* well-being research can assist this undertaking. It discusses how different well-being approaches can result in different conclusions regarding who is doing well or not; and that this can have distinct implications for sustainability endeavors. Therefore, it is asserted that well-being research can profoundly clarify and strengthen sustainability research; for example, in the process of setting, monitoring and reaching well-being related sustainability goals.

These clarifications guide the second part of the article; demonstrating that the concept of sustainability can enhance current well-being approaches. Predominantly, this is, by incorporating research on interdependencies between systems; here, others and nature. It discusses how current well-being approaches can be considered to lack in accounting for interdependencies; and might even reinforce alienation of others and exploitation of nature. Importantly, it is proposed that the broadened sustainability framework can meaningfully reconcile and balance different needs that are in tension; resulting in all-inclusive increases in well-being.

There are attempts herein to integrate current research as well as stimulate new progressive and holistic research questions. Indeed, there are many unanswered questions and issues to be resolved within the separate fields of sustainability and well-being; however, reconciling these currently rather separate areas, opens the opportunity to obtain a more profound understanding. In order to achieve true well-being gains; the causes, consequences and dynamics of a holistic interdependent form of well-being are emphasized as essential. Ultimately this can enable the promotion of sustainable well-being, amplified by interdependencies.

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