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Subjective Well-Being and Security

Subjective Well-Being and Security

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This new series aims to provide a public forum for single treatises and collections of papers on social indicators research that are too long to be published in our journal *Social Indicators Research*. Like the journal, the book series deals with statistical assessments of the quality of life from a broad perspective, It welcomes the research on a wide variety of substantive areas, including health, crime, housing, education, family life, leisure activities, transportation, mobility, economics, work, religion and environmental issues. These areas of research will focus on the impact of key issues such as health on the overall quality of life and vice versa. An international review board, consisting of Ruut Veenhoven, Joachim Vogel, Ed Diener, Torbjorn Moum, Mirjam A.G. Sprangers and Wolfgang Glatzer, will ensure the high quality of the series as a whole.

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Subjective Well-Being and Security

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I dedicate this book to my parents, Cliffe and Beryl Webb, who by example and with love taught me the importance of security and well-being. Thank you for always being there.

Dave Webb

I dedicate this book to my lovely wife Ana Maria and my lovely sons Santiago and Antonio whose support and patience during this time have been very precious for me and have added to my personal well-being.

Eduardo Wills-Herrera

We also dedicate this book to all the people around the world who are experiencing reduced well-being for whatever reason. We hope in some way that this volume leads to positive change in their lives.

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Chapter 1
Introduction

Dave Webb and Eduardo Wills-Herrera

Humankind today is facing challenges that question traditional thinking and research concerning the development of nations, communities, and individuals. For instance, fear of crime constitutes one of the main worries for individuals in cities, regions, and nations. Similarly, global threats such as climate change, the depletion of natural resources, recurrent economic and financial crises, increased inequality, and societal insecurity, all point to the heightened importance of finding new ways of understanding and acting to reduce the insecurity and non-sustainability of existing models and processes of development. Many challenges lie ahead: climate change, increasing terrorism, and violence against individuals, minorities, and nations, recurrent financial crisis in the business world, civil conflict, natural environmental disasters, catastrophies, interconnected corruption and narco-trafficking, human trafficking, and so on. These globalized phenomena highlight the interconnectedness of threats, risks, and dangers which in turn create many challenges for security, human development, and well-being. The aforementioned are global and independent of the place where people live.

Increasing feelings of insecurity and non-sustainability of development processes are related to how development has historically been understood as economic growth and globalization. In this special issue, we recognize that human beings need much more than economic satisfaction in order to flourish. In contrast to seeing development as economic growth only, we propose in this special volume to understand development as a guided process of change by which each individual and social group advances autonomously in what they understand as their promotion of human and social well-being (Wills-Herrera et al. 2011). Under

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this vision, economics is seen and understood as a life dimension, not as exclusive or as the most important. Consequently, security becomes one of the main life domains that has to be considered, understood, and researched in this new perspective of development.

Security and development were, until recently, treated by traditional objective approaches of economic growth and nation-state defense of sovereignty (Haq 1999). Today we propose multidimensional approaches for understanding the development of individuals and communities stressing the contribution of other nonmaterial and noneconomic values to the well-being of individuals, such as feelings of security, family ties, social interconnectedness and social capital, perceived health, aspirations, spirituality, and engagement, among others. Satisfaction with these life domains is encompassed under the umbrella term of well-being. The progress of societies should be seen as a guided process of social change by which each individual in her/his freedom and autonomy can meet the conditions of the life she/he wants to live well.

Well-being then, is one such concept that introduces new ways of thinking about the development and progress of societies. It calls for an understanding of both objective conditions and subjective appraisals of individuals and communities concerning their well-being. Objective conditions and indicators for development have dominated the literature for several decades (Gasper 2010). However, in recent years, the importance of subjective indicators is also evidenced by the success of the leading journal in the area, "Social Indicators Research," as well as a significant number of edited books focussing on many areas of social indicators research. The social indicators movement began some years ago (Noll 2002) as a systematic search for alternative measures for understanding the development and progress of societies.

Subjective well-being (SWB) is associated with the idea of human development. In the literature, it is recognized that human development needs to be considered from a more subjective point of view, (Veenhoven 2000) challenging the notion that economic growth will automatically promote the well-being of all individuals concerned. The increasing importance of this movement can be tracked in the efforts that multilateral agencies such as OECD (*see* the recent OECD Better Life initiative http://www.oecdbetterlifeindex.org/topics/life-satisfaction/ as well as the UNDP Human development Index) are making to redefine the concept of the progress of societies (Rojas (ed) 2011) as well as the increased concerns of governments of individual countries, such as France and Bhutan, which are calling for increased efforts in scientific missions that can redefine what development means (see for instance Stiglitz et al. 2009; McDonald 2010).

SWB has been proposed as the construct and measurement of well-being indicating a type of development "of, by and for the people" (Sen 1999). It is a bottom-up measure directly assessed by the people in contrast to other definitions of development and well-being that have been developed in a top–down approach by academic, elite, and political groups. It encompasses a subjective appraisal, including cognitive and affective dimensions. It is important to note that we speak of SWB because it is appraised as perceived and felt by an individual. But we also think that

the individual transcends his/her own subjectivity in accordance to his relations with others in community or society.

SWB is directly evaluated by the concerned citizen in a process in which each individual considers those aspects of life that each one has reason to value. It has become one of the most popular measures of quality of life (e.g., Diener and Seligman 2004). It implies an evaluation of how people evaluate their lives both positively and negatively (Kim-Prieto et al. 2005). It enquires how people subjectively perceive their well-being in different contexts such as cities, cultures, and regions. This subjective appraisal includes both cognitive and affective dimensions. SWB has more specifically been measured in a number of ways. Diener and colleagues (1985) approached SWB with a single global question included in the "Satisfaction with life as a whole" scale (SWLS). Other authors (Brief et al. 1993) have approached it in a bottom–up way, rating satisfaction with life across different life domains (*see also* Cummins et al. 2003). Cummins and colleagues consider life satisfaction across initially seven life domains and more recently eight life domains with the addition of spirituality and religion. The collective assessment of life satisfaction is aggregated to form the personal well-being index (PWI), which has now successfully been implemented in 23 consecutive survey waves in every State of Australia. The PWI measure has also validly been applied in many other countries. The idea of PWI is to approach parsimoniously the minimal sets of domains of the construct. Consequent studies have shown seven domains and an additional domain (satisfaction with spirituality) has been proposed, adding significantly to explained variance e.g., (Wills 2009). With these new "subjective" scales it is possible to understand how different dimensions such as personal security, safety, community, health, standard of living, etc. all add to a person's sense of well-being from the standpoint of his/her personal feelings and evaluations.

In that way, development is not evaluated by objective external experts or members of dominant groups within each country but by each individual. The evaluation of a well-lived life and its corresponding domains is done with universal measures such as SWB, which have shown their reliability and validity in scientific research and which allows comparisons at the interpersonal and intercultural levels as well as comparisons between nations and cities.

Individuals and communities evaluate their SWB in different contexts and settings such as cities, rural areas, regions, and nations, and in this appraisal they evaluate their subjective feeling of security or insecurity. Satisfaction with security becomes one of the crucial dimensions that influence development and well-being. As such, new understandings of the concept of security should be proposed.

At this stage it is worth highlighting that while thus far we have been talking about well-being, essentially, this concept is often discussed under a broader quality of life label and discussed synonymously with life satisfaction and happiness, though many authors highlight the subtle differences that exist between each. That said, this is not the place to dwell further on this topic since many excellent sources exist to which the interested reader can go. Indeed, *Social Indicators Research*, *Applied Research in Quality of Life* and *The Journal of Happiness Studies* represent three such leading journal resources. A significant body of literature exploring many facets

of quality of life (QOL) research exists. Examples include the following: research on well-being (e.g., Cummins et al. 2003; Diener et al. 2010), life satisfaction (e.g., Cummins 1996), and happiness (e.g., Veenhoven 2000).

In brief, security/insecurity and well-being are then closely related. Research has established that among the domains that contribute significantly to the well-being of individuals are satisfaction with security (Cummins et al. 2003) and future security. Considering security from a subjective perspective introduces a new way of thinking about the concept as differentiated from traditional thinking which has tended to focus on militarism and sovereignty (Haq 1999).

In this order of ideas, a discussion remains about how to conceptualize and measure both concepts and to understand how they are related in different contexts. Consequently, exploring new ways of conceiving, defining, and studying development, well-being, and their relationship to security/insecurity at the individual, group, organizational, and national levels becomes an urgent agenda item for the academic community. In regard to measurement, discussion about their subjective or objective nature constitutes an interesting avenue for empirical research. The reader should note that in discussing security, by implication we include consideration of insecurity too. We also make no assertion here in this introduction regarding the uni or bivariate nature and structure of these concepts.

But how should we understand security and safety? Human security is a new concept that has emerged in this respect. It is closely related to the human development approach that follows the insights of several authors, for example, Sen (1999, 2006), Haq (1999), and Jolly and Ray (2007). With the eruption of different global crises a limited definition has been challenged by scholars from the human development stream (Gasper et al. 2008) because a narrow military conception of security excludes considerations of other types of threats and fears coming from other areas such as food security, health security, political security, environmental security, and so on. Human security is not limited to the negative dimension of the absence of violent conflict in social organizations, but it includes the construction of safeguards and opportunities for people's strengths and aspirations. The human development movement including the idea of human security highlighted the importance of relating issues of security with the lives of people and their corresponding well-being

Earlier concepts of security (Haq 1999), which focus predominantly on militaristic security, seem highly inappropriate since they emerged in the context of the cold war and were mainly used in relation to Nation–State security. These definitions were closely tied to a State defense of sovereign interests. It usually portrayed activities to protect a given country, a location, a building, or a person by the military forces. These insecurities in turn are felt by individuals and groups in different contexts and situations such as rural area, cities, villages, communities, and so on. Interdependent potential threats can be felt by actor's today at all different levels and units of analysis, and, not necessarily alone within national borders. The human security literature highlights the important point that perceptions of insecurity, fear of crime, and concern about personal safety may have a greater negative influence on life satisfaction than actual objective victimization.

This wider consideration includes not just protection from harm and injury (see for example the Introduction to the Human Security Issue (Anand and Gasper 2007) in the *International Journal of Development*, March, 2007) which connected the themes of human security, development, and well-being based on the previous human development reports made by the United Nations Development Program (UNDP). Potential access to water, food, shelter, health, employment, and other requisites that are associated with citizen quality of life independent of where citizens are located is recognized as being among the many crucial security concerns. In this sense, a broadened consideration of security brings together the following concepts: development, human development, quality of life, and well-being. As noted by Myers (1993: 31): it is the collectivity of citizens' needs, overall safety and quality of life that should figure prominently in the nation's view of security.

Both safety and security, together with how they relate to other concepts such as well-being, are currently studied across multiple disciplines, using multiple methodological approaches and at multiple levels of analysis. Additionally, SWB and security are employed to guide public policy as well as other actions, the goal being to increase the well-being of global individuals and societies.

Contemporary thinking about security should include the many interactions between the social, political, cultural, epidemiological, and economical systems, which are often studied and treated separately in past research. The concepts safety and security are often considered interrelated and sometimes treated as synonymous. For example, while in the English language it is possible to differentiate between them, in others it is not. In Spanish and Catalan for instance, only one word *seguridad* representing the two exists. This may imply certain cross-cultural differences which deserve exploring and indeed this volume explores this question too in its content.

This volume of the SIR Community Indicators Series considers how security and well-being are defined, operationalized, measured, and related to other important concepts. This is achieved using multiple lenses, methodologies, and levels of analysis in the different chapters of this book. Similarly, in the context of security, multiple areas of major crime and their impact on well-being as well as security receive attention. Both concepts are analyzed and understood in new and creative ways that challenge traditional definitions of security and development.

Some years ago, we could not have imagined preparing a separate volume on security and well-being. However, in recent years the interconnectedness of these two concepts has been brought to the forefront of attention by different streams of research, particularly those emerging from the SWB domain. According to Roberts (in this issue) a review of more than 6,000 publication abstracts conducted a decade ago by Michalos and Zumbo (2000: 246) revealed that scant attention had been devoted to studying the interconnections between measures of individual criminal victimization, insecurity, and quality of life. Five years later, Møller (2005) supplemented this search by examining approximately 600 journals published by Kluwer between 1997 and 2004, and identified that only three articles (in addition to the Michalos and Zumbo (2000) paper) had probed the insecurity and crime-quality of life relationship.

In this issue, we are interested in exploring new meanings and approaches to security and well-being, and particularly in relation to both objective and subjective measures associated with individual citizens, groups, and communities in different contexts.

1   Papers in This Issue

This volume of the SIR series explores many important questions in its diverse content. For example: Are objective indicators of security the same as perception-based assessments? How are these constructs correlated and why? Also, how are safety and security related? At the same time, how do the different levels of analysis aggregate for a more comprehensive explanation of these concepts not only in English-speaking contexts but also non-English speaking?

To address these and other important questions, we (the editors of this volume) invited a number of noted international scholars from diverse fields of enquiry and representing different countries, to submit a chapter addressing key issues relevant to SWB and security from different disciplinary and interdisciplinary approaches.

Considered together, the contents of this volume represent a timely and significant contribution to knowledge in the area. By way of example, within this volume the reader will find SWB discussed in the context of many major crime-types including: terrorism, human trafficking, the drugs trade, murder, rape, robbery, and so on to name a few. These are considered broadly in Australia, Latin America, Europe, and South Africa, again to name a few.

As crime, fear of crime, and terrorism have become major pathologies connected to living in both cities and rural regions (e.g., Di Tella et al. 2008), it is important that they be considered not only in respect to their psychological consequences but also in terms of associated economic and political ramifications. In this volume, interesting comparative results are presented in separate studies for cities and regions in Portugal (Chap. 5, this volume), Croatia (Chap. 4, this volume), and Colombia (Chap. 8, this volume). We now introduce a brief overview of what the reader will find in this volume.

In Chap. 2, Cummins explores whether satisfaction with safety adds significantly to the comprehensiveness of a measure of SWB. In his discussion, he highlights the importance of considering how homeostatic forces at the individual level come into play for preserving equilibrium levels of SWB such that the fears of individuals are reduced. Similarly, using the personal well-being index (PWI) which advances the development of a barometer to measure satisfaction with life among Australians (Cummins et al. 1994), Cummins highlights the importance of the need to consider the perceived likelihood of a terrorist attack. This observation reaffirms the importance of taking into consideration globalization variables since Australia, where the author resides, has not suffered any direct major terrorist attack in recent years. This is not the case in other nearby locations that are frequently visited by Australian holiday-makers. Drawing on panel data results obtained across 23 surveys implemented between 2001 and 2010, the author reveals that satisfaction with safety

seems to have little relevance to SWB, certainly within Australia. Cummins offers three reasons for this finding: (1) a strong link evidenced between safety satisfaction and homeostatically protected mood (HPMood) implies that safety satisfaction is driven by levels of HPMood, (2) the paucity of variance contributed by the measure, and (3) people's strong adaptation to situations where their sense of security is threatened. Nevertheless, the author proposes that this conclusion does not necessarily apply to specific threatened groups within nations, nor for that matter to constituent nations, and for this reason recommends it be retained as a domain of consideration. This conclusion adds to the previous articles in the sense that for cities in countries that have high security concerns, such as Portugal, Colombia, and Croatia, satisfaction with safety constitutes an important contributor to SWB.

In Chap. 3, and also in Australia, Aly explores the fear of terrorism and its impact on community and individual wellbeing. Incorporating Australia's first Metric of Fear, her chapter uses responses to media discourses to explore fear among Australian–Muslim communities and the broader Australian community. She reports that the fear of terrorism extends beyond an individual fear, vis a vis being physically harmed in a terrorist attack, to include community fear associated with perceived threat to civil liberties and democratic freedom. For Australian–Muslim communities, the fear of terrorism is very much associated with community identity and their status as a community to be feared.

In relation to the practical application and formulation of public policy, it is important to highlight the disconnection revealed in various papers of this issue between perceptions of insecurity at different levels such as the individual and community level on the one hand, and public opinion and the leaders perception on the other (Chap. 9, this volume). It is possible to call for the development of more convincing indicators of feelings of insecurity at different levels, which in turn can be communicated clearly to the general public. Clear results and information to the public will exert pressure to public actions that are missing in this sensitive field.

People seek security of various types, including bodily or health (Graham 2008), material, psychological, social, and existential and in that process they include their families, friends, co-workers, systems of meanings and esteem and so on. Solving safety needs by individuals was highlighted by the pioneering work of Maslow (1943) as one of the basic human needs to be solved in order to aspire to other high-order needs such as self-actualization and personal growth. In this context, safety at the neighborhood, village and city levels becomes essential. Safety needs reflect order and predictability in the environment and the human desire for security and protection (Maslow 1943). The concept of security that is considered in the content of this issue is citizen-centric with an emphasis on its subjective components. Furthermore, it is multidimensional, interconnected, and articulated at the local, regional, national, and global levels.

Fear of crime and terror is the predominant independent (predictor) variable in this research stream. This variable is measured from a subjective and objective point of view, reaffirming the known result that both variables correlate between themselves but are discriminatory.

In Chap. 4, fear of crime is assessed as feelings of safety under different circumstances and contexts by Franc et al. in Croatia. Examining a large sample of 4000 Croatian citizens in different cities, the authors measure perceptions of safety at night under three different situations: traveling in public transport, being at home and, being on the streets in the neighborhood. The prevalence of different types of crime (delinquency, minor crime, corruption, etc.) and illegal substance abuse (drugs and alcohol) are also taken into account.

In Chap. 5, similarly reinforcing the need for a multi-level perspective, Palma et al. highlight the need for studies at the local, municipal, and regional levels to achieve a more comprehensive assessment of security. Their study contributes to the growing human security literature by measuring both objective (crime against the person, property and the social context) and subjective variables related to personal safety in order to assess the life satisfaction of citizens. Presenting results for a sample of 3,757 citizens across 20 urban communities in Portugal, their results reveal an important effect of fear of crime against property vis a vis individual well-being. A possible explanation offered by the authors is that because crime against property is committed at home as compared to other types of crime, it is more proximal to the victim and hence, has a higher effect than other more distant types of crimes. In addition, Palma et al.'s results reveal that subjective security does not correlate highly with objective indicators such as physical crime against the person, a finding that is corroborated by other studies presented in this volume (e.g., Chaps. 8 and 9, this volume) that were carried out in a Latin American context. These findings pose important and intriguing questions for new research about why objective and subjective measures of insecurity are not highly correlated. Indeed, Cummins's discussion of adaptation processes (in this issue) may go some way to explaining this. Thus, an important conclusion which Palma et al. highlight and which offers support to other authors in this issue (e.g., Chap. 8, this volume) is that the consideration of objective indicators alone is inadequate for explaining levels of well-being both at the urban as well as rural levels.

Another important contribution to the discussion of crime in communities is made in Chap. 6 by Medina and Tamayo. They assess the effect that crime, perceptions of security, and victimization rates have on satisfaction with life in different neighborhoods in Medellin, a city that for decades has been recognized as one of the most dangerous cities in the world due to the heavy influence of cartels. It is important to note that in recent years the crime rate has dropped dramatically due to a shift in public security policy.

In Chap. 7, Roberts presents an exploratory study to investigate the extent and nature of fear of crime in South Africa after nearly two decades of democracy. In addition, he builds on recent empirical studies by exploring the impact of crime-related issues on quality of life in a developing country context. The results pose critical challenges to some of the prevailing stereotypes in respect to those who are most fearful, and provide further support for other national and sub-national surveys that have arrived at similar conclusions. A very important conclusion of this study is that in many instances, there is no significant difference in fear of crime between black and white respondents, with Indian respondents constantly

displaying the highest levels of fear. Given this finding, the popular reference to fear of crime in the country as predominantly "white fear" is lamentable (see also Møller 2005) in that it is misleading and neglects the needs of a majority who are less able to adequately voice their concerns. Another important conclusion is that people residing in rural areas tend to experience less fear of victimization than their urban counterparts. In this respect, a significant finding is that it is in the country's informal settlements that fear seems most pervasive. South Africans have shown resilience by not allowing insecurities and experiences of crime to impact to any significant degree on their life satisfaction. However, from the results presented in the chapter, it is readily apparent that the fear equation remains of considerable importance for policy discussion.

In Chap. 8, adopting a multidisciplinary (sociology, economics and social psychology) approach, Wills-Herrera and colleagues study how social capital can moderate the relationships between the perceptions of insecurity of rural producers in Colombia and their level of SWB. With a methodology that uses a multi-level model, the authors show how objective indicators of insecurity in rural areas of a conflict-ridden country such as Colombia are distinct from perceptions of insecurity and how these perceptions can be divided into four sub-categories of insecurity: personal, communitarian, political, and economic. The study shows empirically how to associate in networks and organizations, seen as social capital, and it highlights how the development of associations becomes one of the mains strategies that rural producers can follow in order to attenuate insecurities. It further reveals how perceptions of insecurity are related with adaptation processes such as the strengthening of organizations and belonging to social networks.

Next in Chap. 9, Graham and Chaparro offer an interesting paper considering how insecurity affects well-being (considered as happiness and health), and how the effects can be mitigated by adaptive mechanisms. This represents an important avenue for public policy in the future. The authors also show how victimization has a negative effect on friendships as well as a deteriorating effect on confidence in public institutions. This highlights the important question of how to handle reductions in the well-being of individuals at the same time that society-wide costs are created by way of insecurities?

In Chap. 10, adopting the earlier-mentioned PWI (Cummins et al. 2003), Gonzalez et al. explore perceptions of future security among a sample of young post-compulsory secondary education students in Spain. The results obtained offer a further contribution to our understanding of security, not only in general, but specifically for young persons aged between 15 and 24 years old, via an exploration of its relationship with psychosocial factors such as self-concept, overall sense of meaning in own life, freedom of choice and control over own life and, values aspired to in the future.

Finally, in Chap. 11 we conclude this volume with an exploratory study by Webb and Rodriguez de la Vega. The authors open new and important avenues for SWB research with their consideration of the effects of the growing global crime of human trafficking for the specific purpose of sexual exploitation on the well-being of victims as well as communities in the crime-ridden Triple Frontier region of South

America (Argentina, Paraguay, and Brazil). This important study proposes how local communities can organize themselves to acquire more power and voice to combat these illegal practices, and to make the region more secure for its inhabitants so that their well-being and quality of life can be enhanced.

We are excited to be able to bring together in one volume this collection of research from a group of renowned international authors, whose chapters extend our knowledge about a fundamental dimension of human well-being, namely, security. We hope that these studies inspire others to explore the rich research avenues suggested by the authors in their respective chapters.

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Chapter 2
Safety and Subjective Well-Being: A Perspective from the Australian Unity Wellbeing Index

Robert A. Cummins

Satisfaction with personal safety forms a part of many scales measuring subjective well-being (SWB). Yet it seems intuitive that this item will have a different association with well-being from other commonly included life areas, such as relationship. While high satisfaction with relationships is a positive, constantly reinforcing experience, high satisfaction with safety is neutral. Rather like pain, in its absence, the construct is likely to be ignored. However, if people feel unsafe, then this life area could easily overwhelm their world view and lead to a drastic reduction in well-being. This chapter explores these associations, particularly focusing on data from Australia.

The level of safety in Australia is comparable to that within similar nations. For example, the level of crime is similar to that of Canada and the United Kingdom (NationMaster 2011), and has not changed systematically over the past decade (Australian Institute of Criminology 2009). However, understanding the connection between the sense of personal safety and well-being has become more complex since the terrorist attacks of September 2001. This outrage gave people a new source of fear.

Prior to that date, such acts of destruction were unthinkable in Australia. Now, however, severe acts of terrorism gain worldwide publicity, thereby creating the opportunity for people to feel fearful of terrorist attacks even though no such acts have been perpetrated in their own land. Indeed, this is the terrorists' intention. Acts of terrorism are designed to have far-reaching psychological repercussions beyond the immediate act itself (Hoffman 1998; Wilkinson 2000). So any contemporary analysis of the link between safety and SWB must now include the perceived danger from terrorism.

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1   Terrorism and Australia

The closest that Australia has come to with respect to deadly terrorist attacks has been in a neighboring country. Bali, in Indonesia, is a favorite Australian tourist destination, and on the 12th of October 2002, bombs detonated in the tourist district of Kuta killed 202 people, 88 of whom were Australians. This was followed some 3 years later by a similar attack. In response to this, since 2003, we have asked people two questions. First, whether they expect a terrorist attack in Australia to happen in the near future and, second, if they do, the strength of their conviction.

The results from these two items and safety satisfaction are interpreted in terms of three constructs. The first is the Homeostatic Theory of Subjective Wellbeing, which proposes that SWB is actively managed by each person to remain positive and stable. The second is the normative range for SWB, established through the combination of data across surveys. The third is the idea of causal and indicator variables. Causal variables, like the fear of an attack, are the symptoms of pathology that may cause an end-state to change. Indicator variables, such as SWB, constitute a measured end-state. It will be demonstrated that the relationship between the perceived probability of an attack and SWB is predicted by each of the above-mentioned constructs.

2   Subjective Wellbeing Homeostasis

The theory of Subjective Wellbeing Homeostasis proposes that for each person, in a manner analogous to the homeostatic maintenance of body temperature, SWB is actively controlled and maintained (see Cummins 2010; Cummins and Nistico 2002, for an extended description). This homeostatic system attempts to maintain a normal positive sense of well-being as a generalized and rather abstract view of the self. This view can be most easily measured by a response to the classic question "How satisfied are you with your life as a whole?," which has been asked in population surveys for over 35 years (e.g., Andrews and Withey 1976). Given the extraordinary generality of this question, the response that people give does not represent a cognitive evaluation of their life. Rather, it reflects a deep and stable positive mood-state that we initially called Core Affect (Davern et al. 2007), but which we now refer to as Homeostatically Protected Mood (HPMood: Cummins 2010). This is a mood-state dominated by a sense of contentment flavored with a touch of happiness and arousal. We propose that it is this general and abstract state of subjective well-being which the homeostatic system seeks to defend. As one consequence, the level of satisfaction people record to this question has the following characteristics:

1. It is normally very stable. Certainly unusually good or bad events may cause measured SWB to change. Such events generate affect as emotion, which can dominate HPMood and give the person a level of affect that lies outside their range of HPMood. However, over a period of time, homeostasis will normally

return SWB to its previous level (Hanestad and Albrektsen 1992; Headey and Wearing 1989).

2. Each person has a level of HPMood that is set genetically. This results in a "set-point" for SWB which lies in the "satisfied" sector of the dissatisfied–satisfied continuum. That is, on a scale where zero represents complete dissatisfaction with life and 100 represents complete satisfaction, people's set-point lies within the range of about 60–90 points and constitutes an individual difference (Cummins et al. 2002).

3. At a population level within Western nations, the average set-point is 75. In other words, on average, people feel that their general satisfaction with life is about three quarters of its maximum extent (Cummins 1995, 1998).

While this generalized sense of well-being is held positive with remarkable tenacity, it is not immutable. A sufficiently adverse environment can defeat homeostasis and, when this occurs, the level of subjective well-being falls below its homeostatic range. For example, people who experience strong, chronic pain from arthritis or from the stress of caring for a severely disabled family member at home, have low levels of SWB (Cummins 2001; Cummins et al. 2007a, Report 17.1). However, for people who are maintaining a normally functioning homeostatic system, their levels of SWB will show little relationship to normal variations in their chronic circumstances of living.

So, how does homeostasis manage to defend SWB against the unusually good and the unusually bad experiences of life? The answer we propose is that there are two levels of defense, and we call these defensive systems "buffers." One set of buffers is external to the person and the other internal.

2.1   Homeostatic Buffers

Interaction with the environment constantly threatens to move well-being up or down in sympathy with momentary positive and negative experience. While such movement does occur, most people are adept at avoiding large fluctuations. They avoid strong challenges to homeostasis through the maintenance of established life routines that make their daily experiences predictable and manageable. Under such ordinary life conditions, their level of mood-state varies by perhaps 10% points or so from one moment to the next: this is the set-point range. Homeostasis works hardest at the edges of this range to prevent more drastic mood changes which, of course, also occur from time to time. Strong and unexpected positive or negative experience will shift the sense of personal well-being to abnormally higher or lower values, usually for a brief period, until adaptation occurs. However, if the negative experience is sufficiently strong and sustained, homeostasis will lack the power to restore equilibrium, and SWB will remain below its set-point range. Such homeostatic defeat is marked by a sustained loss of positive mood and a high risk of depression (Cummins 2010).

So, the first line of defense for homeostasis is to avoid, or at least rapidly attenuate, negative environmental interactions. This is the role of the external buffers.

2.2   External Buffers

The two most important external resources for the defense of our SWB are close relationships and money. Of these two, the most powerful buffer is a relationship with another human being that involves mutual sharing of intimacies and support (Cummins et al. 2007b, Report 16.1). Almost universally, the research literature attests to the power of such relationships to moderate the influence of potential stressors on SWB (Henderson 1977; Sarason et al. 1990).

Money is also a very important external buffer, but there are misconceptions as to what money can and cannot do in relation to personal well-being. For example, it cannot shift the set-point to create a perpetually happier person. Set-points for SWB are proposed to be under genetic control (Braungart et al. 1992; Lykken and Tellegen 1996), so in this sense, money cannot buy happiness. No matter how rich someone is, their average level of SWB cannot be sustained higher than one that approximates the top of their set-point range. People adapt readily to luxurious living standards, so genetics trumps wealth after a certain level of income has been achieved. This limitation is supported by the findings of a recent report (Cummins et al. 2007b) using cumulative data from the Australian Unity Wellbeing Index. The purpose of the analysis was to locate demographic groups with the highest levels of well-being. The highest, reliable, group mean score is 81.0 points. Thus, this seems to be the maximum SWB that can be maintained as a group average even for people who have close relationships and plenty of money.

The true power of wealth is to protect SWB through its capacity to be used as a highly flexible resource (Cummins 2000) that allows people to defend themselves against the negative potential inherent within their environment. Wealthy people can employ their monetary resources to introduce target hardening measures (e.g., intrusion alarms) to protect themselves and their property. Poor people who lack such resources have a level of SWB that is far more at the mercy of their environment.

2.3   Internal Buffers

When people fail to control their external environment and their SWB is threatened, their internal buffers come into play. These comprise protective cognitive devices that are designed to minimize the damaging impact of personal failure on positive feelings about themselves. There are many such devices, collectively called Secondary Control (Rothbaum et al. 1982), and a detailed discussion of these systems in relation to SWB is provided in Cummins and Nistico (2002) and Cummins et al. (2002).They have the role of protecting SWB against the conscious realities of life. They do this by altering the way we see ourselves in relation to some challenging agent, such that the negative potential in the challenge is deflected away from the core view of self. Thus, the role of these buffers is to minimize the impact of personal failure. The ways of thinking that can achieve this are highly varied. For example, one can find meaning in the event ("God is testing me"), fail to take

responsibility for the failure ("it was not my fault") or regard the failure [breaking a glass] as unimportant ("I did not need that old glass anyway").

In summary, the combined external and internal buffers ensure that our well-being is robustly defended. There is, therefore, considerable stability in the SWB of populations. As has been stated, the mean for Australia is consistently at about 75 points on a 0–100 scale. The theory of SWB Homeostasis also makes some quite specific predictions concerning the nature of the interaction of SWB with other variables. The first prediction is a generally weak negative correlation between the strength of challenging agents and the level of SWB. The primary purpose of homeostasis is to prevent any such relationship. The second prediction is a nonlinear relationship between SWB and the strength of challenging agents. This is because homeostasis can only maintain a steady level of SWB up to a threshold level of challenge, strong enough to defeat homeostatic control. At this threshold, homeostasis relinquishes control of SWB to the challenging agent, and SWB rapidly decreases (Cummins 2010).

3 Method

The results to be presented throughout this Chapter are available from Cummins et al. (2010). They are based on cumulative data from 23 surveys of the Australian Unity Wellbeing Index conducted between 2001 and 2010. Data are collected by telephone, and each survey involves a new sample of 2,000 people, geographically representative of the adult population based on population density. Each survey contains the Personal Wellbeing Index (International Wellbeing Group 2006), a seven-domain measure of subjective well-being (SWB). Each domain is assessed through a question of "satisfaction" directed to standard of living, health, relationships, currently achieving in life, future security, community connection, and safety.

Thus, "satisfaction with safety" is one of the seven domains of the Personal Wellbeing Index, and these domains, in combination, are designed to represent the first-level deconstruction of "satisfaction with life as a whole" (International Wellbeing Group 2006). In order to create such representation, the wording of all domain items is semiabstract. That is, they are determinedly nonspecific. Because of this nonspecificity, respondents predominantly use mood affect as information when answering the question (for "affect as information" see Schwarz and Strack 1991, 1999). If items were to be made more specific (e.g., How satisfied are you with your safety at work?), then their satisfaction response would reflect a more cognitively driven evaluation.

4 Safety Meaning and Measurement

The term "safety" does not have exactly the same meaning as "security" in English (Merriam-Webster Online 2011); however, the differences are subtle and would almost certainly be lost when translated into many other languages. The term itself is a complex amalgam of affect and cognition (see Liska et al. 1988). Thus, "safety"

is not one of the primary emotions represented on the circumplex (Huelsman et al. 1998; Russell 2003; Yik et al. 1999), but it fulfills the criteria of a domain in the Personal Wellbeing Index (International Wellbeing Group 2006) as follows:

(a) Safety describes a broad aspect of life which is amenable to both objective and subjective measurement. This requirement is based on the fundamental principle that quality of life exists as separate objective and subjective dimensions. While the PWI is concerned only with the subjective dimension, this criterion allows the possibility that a parallel objective scale could be constructed.

(b) Safety also fulfills the criterion for a PWI domain in being an unequivocal indicator variable, as opposed to a causal variable, of life quality (Fayers et al. 1997). An indicator variable may be defined as one that can never act alone as a mediator (for a description of the mediator–moderator distinction, see Baron and Kenny 1986). A causal variable, on the other hand, is normally a mediator for an Indicator variable. An example of a causal variable is "satisfaction with your control over your life." Because, the perception of control can mediate the influence of, for example, physical disability on safety, control is not an unequivocal indicator variable.

(c) The final criterion is that, in the presence of the other domains, "satisfaction with safety" makes a significant contribution of unique variance to "satisfaction with life as a whole." It is notable that, in the context of general Australian surveys, safety consistently fails to meet this criterion. It has also been reported to make no contribution in China (Smyth et al. 2010). However, it does so in other countries (International Wellbeing Group 2006) and in some Australian population subgroups (Cummins et al. 2009).

Apart from its use in the PWI, authors have quite commonly considered that "safety" should be considered part of life quality. A search for this term within the Instruments section of the Australian Centre on Quality of Life (2010) identifies ten scales that include such an item. Safety is also widely incorporated in the measurement of other diverse constructs. The majority of such scales are measures of negative experience such as a Deprivation Index (Klasen 2000), Lived Poverty Index (Mattes et al. 2003), school victimization (Benbenishty and Astor 2005), and Job Dissatisfaction (Patmore 2010). Other authors, however, have used safety in the context of positive experience, such as school attachment (Wei and Chen 2010), positive youth development (Shek 2010), and family solidarity (defined objectively: Chua et al. 2010). Despite this wide usage, a critical consideration for the inclusion of this item in any scale is whether "safety" contributes unique information to such scales, or it just shares its variance with other scale items, making no independent contribution to understanding.

5   The Contribution of Shared and Unique Variance

Because safety is one of the seven PWI domains it has a direct relationship with SWB. Moreover, within the context of the PWI, the contribution of safety satisfaction to the PWI can be characterized as comprising two sources of variance.

The dominant source is variance shared with the other domains, and the minor source is variance unique to safety satisfaction.

The shared variance with the other domains means they all tend to rise and fall together. There are two sources of this shared variance. The first is HPMood, which represents the genetically determined, individual difference set-point. The level of affect corresponding to each set-point permeates all domains. Thus, people with high set-points tend to rate all domains as relatively high, and people with low set-points tend to rate all domains as relatively low. This is the dominant source of variance for all domains when the person is operating normally within their set-point range. However, another source of shared variance operates when the person is reporting a level of SWB outside their set-point range.

When SWB is abnormally high or low, normal contact with HPMood is lost. Then, instead of the person experiencing their normal set-point level of positivity, they will feel a level of affect as emotion, either positive or negative, that is being generated by the challenging agent. This will influence the felt level of satisfaction with all domains. For example, sadness due to the death of a close friend is caused by the negative affect associated with this event. If this affect is strong enough to dominate homeostatic control, it will cause a universal reduction in the reported satisfaction of all domains.

When under the control of either HPMood or a challenging agent, each individual domain contributes little unique information. Variation from one time to the next is mainly predicted by the satisfaction level of the other domains. However, even under these conditions, there is another source of information, much weaker than shared variance but unique to each domain. This comes about because the power of shared variance is not uniformly influential across all domains. The reasons for this are:

(a) The domains differ in their level of abstraction. Thus, "future security" is more abstract than "health." The more abstract the item, the more likely it is that people will use their level of HPMood as information (for "affect as information" see Schwarz and Strack 1991, 1999).

(b) The domains will differ in the extent to which they are being influenced by circumstances at the time of measurement. Of course, the emotions attached to acute circumstances just comprise measurement noise. But the chronic circumstances that the respondent is experiencing can exert a systematic and differential influence on domain satisfaction. For example, if the respondent is chronically experiencing the fear of partner violence, then their satisfaction response to "safety" is more likely to contain unique variance related to this issue. Thus, their response will be less likely to simply reflect HPMood.

(c) The domains may compensate for one another, as described by Best et al. (2000). Domain compensation is hypothesized as a homeostatic device that facilitates satisfaction in some domains to compensate for low satisfaction in others. For example, if satisfaction with safety goes down, satisfaction with relationships may go up to help maintain a steady level of SWB.

In summary, any assessment of SWB has a variable contribution from HPMood that is influenced by three sources of variance. The first and second are the shared

variance caused by set-points and challenging agents. The variance caused by set-points is the pure reflection of HPMood, is proposed to be under genetic control, and cannot be modified. The shared variance caused by challenging agents diminishes the measured contribution of HPMood, most especially if these agents cause homeostatic failure. The third contribution is unique variance caused by low levels of domain abstraction, domain-specific influences, and domain compensation. Unique variance diminishes the measured contribution of HPMood due to its differential influence on specific domains.

5.1 Theoretical Implications for the Interpretation of Results

There are various predictions that emerge from this flow of reasoning. The first is that the measurement of HPMood can be most accurately assessed in the absence of both challenging agents and unique variance. The absence of challenging agents could be approximated by selecting samples where all PWI values lie within the hypothesized set-point range of 60–90 points (Cummins et al. 2002). The absence of unique variance may, in fact, be approximated by safety since, at least in Australia, it is the domain with the least unique variance. Safety consistently fails to make an independent contribution in general population samples (Cummins et al. 2009, Report 22.0; Lau et al. 2005), and also fails to do so in Algeria (Tiliouine et al. 2006), Hong Kong (Lau et al. 2008, 2005), and other Chinese cities (Smyth et al. 2010). However, it does contribute unique variance in Slovakia (International Wellbeing Group 2006) and other subpopulation groups, such as the elderly people in Hong Kong at the time of the Severe Acute Respiratory Syndrome epidemic (Lau et al. 2008). Because of these positive results it is retained as a domain in the PWI.

   The second prediction concerns interpreting changed levels of satisfaction. That is, if some systematic and significant influence on SWB is applied at different levels of intensity, then the above analysis predicts that each level of intensity will exert a systematic and different influence on shared and unique variance. Consider, for example, different levels of income. The strongest level of shared variance should occur at the lowest levels of income. The logic is as follows:

1. Shared variance can be caused by either HPMood or homeostatic failure. The latter is the most powerful potential source since it has the potential to cause the greatest mass movement of domain satisfactions.
2. Because income is a protective buffer through its use as a flexible resource, as income rises, the probability of homeostatic failure decreases.
3. As the probability of homeostatic failure decreases, the proportion of shared variance caused by challenging agents decreases, up to the point that the shared variance is created by HPMood alone.
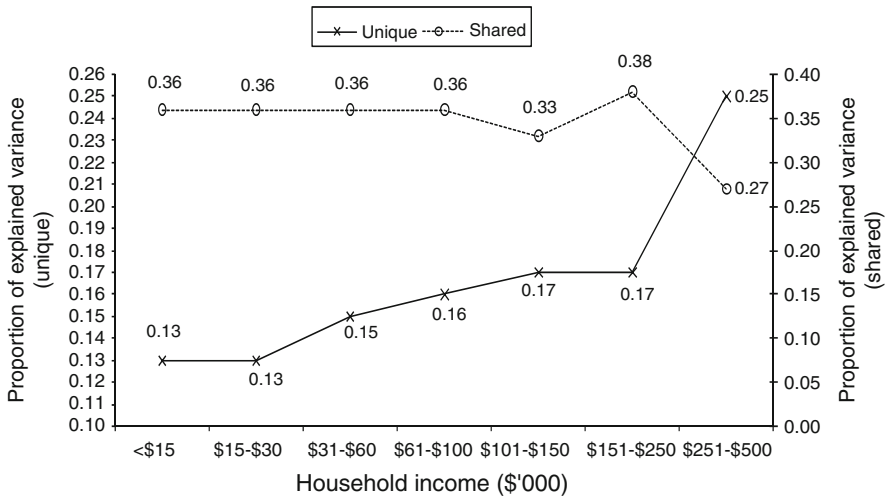
Fig. 2.1 The proportion of unique and shared variance by income

Following a different line of logic, the weakest levels of unique variance should occur at low incomes. The logic is as follows:

1. The unique variance will tend to be negated by the presence of homeostatic failure. Any powerful force moving domains down or up will dominate the individual domain contributions to explained variance.
2. As income rises, and the presence of homeostatic failure is diminished, the domains are more able to exert their own contribution.
3. As income rises, the unique variance of domains most relevant to income will rise faster than others.

5.2 An Empirical Test of the Theoretical Predictions

An empirical test of the above-mentioned predictions is shown in Fig. 2.1. This shows the average level of shared and unique variance at each income level as the seven domains are regressed against "satisfaction with life as a whole." The data are cumulative over nine surveys using the Australian Unity Wellbeing Index.

As can be seen, both trend lines show the predicted changes. Shared variance does not reliably decrease until the highest income is reached. However, the domains progressively capture more unique than shared variance as household income rises above \$30,000. This is consistent with the progressive release of domains from the influence of homeostatic failure due to inadequate income.

In order to investigate changes in the individual domain contributions (β), Fig. 2.2 has been produced using the same cumulative data set.
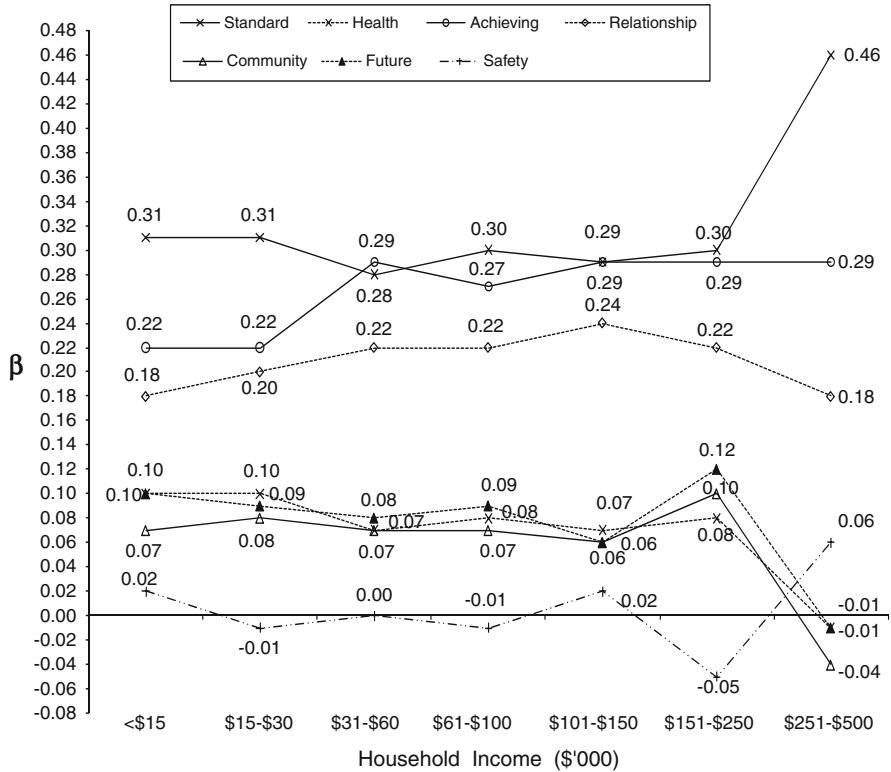
Fig. 2.2 Domain unique variance×income (combined data)

The most dramatic result is provided by the highest income group ($251–500K). Up to this level of income, all of the domains except safety contribute significant unique variance. Then, at this highest level of income, the unique contribution from health, community, and future security all become non-significant, leaving only three domains to make a significant unique contribution (standard, achieving, and relationships).

Three other features of these results in Fig. 2.2 are notable and can be explained in conjunction with Fig. 2.1 as:

1. At the highest level of income, the combined unique variance supplied by these three remaining domains is the highest of all the regressions (see Fig. 2.1).
2. Coincident with this sharp rise in amount of unique variance, the shared variance decreases to its lowest level. However, the overall variance accounted for remains stable at about 50%. In other words, it appears that some shared variance has become unique variance within standard, achieving and relationships. Perhaps these are the only domains required when life is easy?
3. The peak unique variance is achieved at different income levels for each domain. Relationships peaks at $101–150K, achieving peaks first at $31–60K, while standard peaks at $251–500K. This may reflect their different sensitivity to income.