

Is the grass always greener on the other side? Social comparisons of subjective well-being

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Abstract

This study investigates subjective well being (SWB) among residents of Munich ($n = 380$) and Venice ($n = 545$) with respect to their individual SWB and their judgments of SWB for residents of their own city and those living in the other city. Our results indicate that egocentrism rather than striving for self enhancement guided people's judgments of SWB. For people with low individual SWB, a below average effect was found, whereas for people with high individual SWB, a better than average effect emerged. Also in line with the egocentrism approach, judgments of individual SWB were positively related to the judgments of SWB for residents of their own city, but unrelated to SWB of those living in the other city. Implications for future research are discussed.

Keywords: *Subjective well being, satisfaction with life, social comparisons*

Introduction

Many studies have shown that most people believe they are better than average (see Alicke & Govorun, 2005; Armor & Taylor, 1998; Krueger, 1998; Taylor & Brown, 1988, 1994, for reviews). This effect has been found in various domains: with respect to driving ability (Svenson, 1981), social competencies (Alicke, Klotz, Breitenbecher, Yurak, & Vredenburg, 1995), attractiveness (Gabriel, Critelli, & Ee, 1994), and intelligence (Stankov & Crawford, 1997). The tendency to overestimate one's own abilities has been investigated primarily in the domain of social psychology and has often been referred to as the "better-than-average effect" (BTAE). Some studies have also called this relative overestimation of one's own attributes as the "above-average effect," "I am better than my group's average (IBTA) effect," "illusory superiority," the "sense of relative superiority," the "leniency error," the "superior conformity of the self," or the "*primus inter pares*" (first among equals) effect (see Hoorens, 1993, for a review).

The BTAE has also been found with respect to individuals' assessments of group abilities. That is, people do not only overestimate their individual abilities in relation to the abilities of others, they also overestimate the overall abilities of the groups to which they belong (ingroups) in relation to the

abilities of other groups (outgroups; Abrams & Hogg, 1988). This phenomenon is called the ingroup bias (Mullen, Brown, & Smith, 1992) and is a central component of Social Identity Theory developed by Tajfel and Turner (1979, 1986; see Rubin & Hewstone, 1998, for a review on research on the ingroup bias).

While there are numerous findings that have confirmed the BTAE, some recent studies reported a *below-average effect*. Kruger (1999), for example, found below-average effects in participants' comparative ability judgments for difficult tasks. These and other empirical findings have led to a rethinking of the "classical" explanations for the BTAE, which are motivational in nature, namely the striving for self-enhancement (Alicke & Govorun, 2005). Recently, non-motivated accounts like egocentrism have been discussed for explaining both the BTAE and the below-average effect (Chambers & Windschitl, 2004; Kruger, 1999).

Although the BTAE has often been demonstrated with respect to numerous constructs, few studies have examined the potential influence of the BTAE on affective variables (see Smith, 1993, 1999). Existing research has investigated the BTAE for affective constructs on either an individual level (e.g., contentment; Klar & Giladi, 1999; Lykken & Tellegen, 1996; Schkade & Kahneman, 1998) or on a group level (e.g., higher-order emotions such as

affection, admiration, pride, conceit, nostalgia, remorse, and rancor; Plutchik, 1994; see also Leyens et al., 2000). Results of these studies suggest that most people rate their emotional experiences more favorably than those of the average individual.

The present study aims to contribute to these studies in examining the BTAE for judgments of subjective well-being (SWB), a construct explored mainly within the context of "positive psychology" (see Seligman & Csikszentmihalyi, 2000). However, we aimed to contribute to this research by further differentiating people's judgments of SWB concerning "the average individual." Specifically, we asked them to distinguish in their judgments of SWB between ingroup and outgroup members. Thus, the present study incorporates recent research on social comparisons and subjective well-being in examining the implications of the BTAE with respect to how people evaluate their individual SWB, the SWB of other inhabitants of their city (ingroup), and the SWB of inhabitants of another city (outgroup).

A similar study conducted by Schkade and Kahneman (1998) asked US residents living in the midwest and southern California to judge satisfaction with life for either themselves or someone similar to themselves in one of the two regions. Thus, each person's evaluation in Schkade and Kahneman's study referred to only one target individual. In contrast to the Schkade and Kahneman investigation, our study assessed peoples' judgments of SWB with respect to three different target individuals: themselves, ingroup members (inhabitants of their own city), and outgroup members (inhabitants of another city).

Motivated factors leading to biases in social judgments

Traditionally, the BTAE has been assumed "to be mediated by a motivation for people to see themselves or depict themselves in the best possible light" (Chambers & Windschitl, 2004, p. 813). Classic research by James (1890), Allport (1937), and Horney (1937) postulated that a central motive of human beings is *self-enhancement*. This motive to enhance one's self-worth influences not only self-worth-enhancing behaviors (e.g., working hard in order to achieve good results) but also how people compare their own abilities with the abilities of others. As such, self-enhancement theory represents a theoretical elaboration of Festinger's (1954) theory of social comparison processes. It suggests that although people may seek to accurately evaluate their own abilities by comparing themselves with *similar* others, individuals are also motivated to

bolster their self-worth by engaging in social comparison processes that result in personal superiority. Because the result of the BTAE is to perceive oneself as "better than the average," it seems obvious that a plausible motive for explaining this effect both at the individual and group levels is self-enhancement (Alicke & Govorun, 2005; Hoorens, 1993).

Nonmotivated factors leading to biases in social judgments

Other research suggests that motivational concerns are not the exclusive or even most dominant source of the BTAE (Alicke & Govorun, 2005; Chambers, Windschitl, & Suls, 2003), with recent empirical studies showing results that are incongruent with motivational accounts (for a review, see Chambers & Windschitl, 2004). Kruger (1999), for example, found below-average effects in participants' comparative ability judgments for difficult tasks, a finding that is incongruent with the motive of self-enhancement. Thus, recent research has focused increasingly on nonmotivated accounts to explain biases that cannot be adequately captured by motivated explanations. Nonmotivated accounts "locate the source of the biases within aspects of the judgment process and information-processing limitations rather than in self-enhancement motives or other related motives such as mood maintenance" (Chambers & Windschitl, 2004, p. 813). However, as Alicke (1985) points out, biases due to nonmotivated aspects could also have unintended self-enhancing consequences.

The most prominent nonmotivated explanation for the BTAE is *egocentrism* (Alicke & Govorun, 2005; Moore & Kim, 2003). Differing from other nonmotivated accounts, egocentrism is assumed to be involved when people's comparative evaluations are assessed using indirect methods, in which absolute judgments concerning oneself and others are made using separate scales. Other prominent nonmotivated accounts (e.g., focalism) appear to be involved when using a direct method of assessment (Chambers & Windschitl, 2004), that is, when people are asked to directly compare themselves with others as part of a single scale (with "average" as the midpoint). Because we used the indirect method for the comparative assessment of SWB, egocentrism was assumed to be the most relevant potential nonmotivated explanation to be evaluated in this study.

According to the egocentrism approach, judgments related to oneself and to others are inherently egocentric, in that people focus primarily on their own skills and behaviors and fail to adequately consider the skills and behaviors of others.

Several mechanisms are assumed to mediate the effects of egocentric judgments. For example, when people have greater access to information concerning themselves rather than others, they often give more attention to themselves and use different standards when evaluating themselves versus other people (Chambers & Windschitl, 2004). Further, the egocentrism approach can explain both the BTAE and the below-average effect. As Kruger postulates, one consequence of egocentrism should be that "people tend to see themselves as above average in domains in which absolute skills tend to be high (or the threshold for successful performance is low) and below average in domains in which absolute skills tend to be low (or the threshold for successful performance is high)" (Kruger, 1999, p. 222).

Judgments of one's own and others' subjective well-being

According to *motivated* approaches, the striving for self-enhancement is the primary factor producing biases in the judgment of one's own and others' abilities and behaviors. Seeing the BTAE as a product of motivated reasoning, overestimating oneself should be the general principle underlying the BTAE regardless of one's individual level of SWB. In other words, motivated accounts would predict the BTAE for persons at all levels of SWB. As such, even people who judge themselves as relatively unhappy should judge others to be equally unhappy or less happy than themselves in order to maintain or enhance their self-esteem.

According to the *nonmotivated* egocentrism approach to social comparative judgments, people with low levels of SWB should consider themselves to be below average, whereas people with high levels of SWB should rate themselves as above average. For example, if a generally happy person was asked to rate her own happiness, she would be expected to reflect upon readily accessible memories of numerous situations in which she previously experienced happiness, thereby leading to responses indicating high levels of happiness. When the same person is asked how happy others are, less reflection would be expected due to memories of others' happiness being less accessible, which could lead to somewhat lower ratings of others' happiness. The opposite pattern of results would be expected for less happy individuals, for whom memories of one's own unhappiness would be more readily accessible than the unhappiness of others. As such, although an above-average effect would be anticipated for happy persons, unhappy individuals should judge the happiness of others to be greater than their own, reflecting a below-average effect.

In sum, for high levels of individual SWB, both the motivated account (self-enhancement) and the nonmotivated account (egocentrism) predict the BTAE. However, for people with low individual SWB, the self-enhancement approach predicts a BTAE, whereas the egocentrism approach predicts a below-average effect (for a similar argument, see Chambers & Windschitl, 2004; Chambers, Windschitl, & Suls, 2003).

Concerning empirical results, Schkade and Kahneman (1998) found undergraduate students' self-reported individual life satisfaction to be substantially higher than their prediction of life satisfaction for a similar individual living in another location. However, in this study, students were asked to judge either their own life satisfaction or that of another student. That is, the data for a given individual did not include ratings for both their own life satisfaction *and* the perceived life satisfaction of another student. Alicke, Vredenburg, Hiatt, and Govorun (2001) also found a clear BTAE for judgments of contentment among university students. This study used the indirect method of assessing comparative biases; they asked each student to make separate judgments about themselves and about others. In a study by Klar and Giladi (1999), participants were asked to make both separate assessments concerning their own and others' level of life contentment (i.e., indirect method), as well as direct comparative assessments of life satisfaction. Using the indirect method, participants were not found to rate their own contentment higher than that of others. With the direct method, however, they found that when asked to respond in a comparative manner, participants did rate themselves as more content than others. This finding indicates that the manner in which judgments of subjective well-being are assessed can significantly impact study results concerning the strength of comparative biases in social judgments (see Chambers & Windschitl, 2004).

Judgments of SWB for residents of one's own vs. another city

In the present study, we not only differentiate judgments of one's own and others' SWB, we further differentiate "others" according to people living in the same city (ingroup) and people living in a different city (outgroup). According to the *self-enhancement* perspective, people should rate the SWB for residents of their own city (ingroup members) as higher than the SWB for those living in another city (outgroup members). In other words, people should enhance their individual self-esteem by enhancing the positive aspects of their ingroup.

Consistent with the global nature of this hypothesis, this pattern of judgments is expected for all participants regardless of their individual level of SWB. This assumption that individual self-esteem is enhanced by focusing on the favorable aspects of one's ingroup is an integral part of Social Identity Theory (Tajfel & Turner, 1979, 1986; see also Otten, 2005).

According to the *egocentrism* approach, when rating the SWB of oneself and others, people first consider information related to themselves and then, to a lesser extent, information involving other individuals. One main reason for doing so is that people often have much more information about themselves than they have about others. Individuals are also assumed to have more information available for their judgments of SWB for their fellow inhabitants (e.g., due to sharing some living conditions) than for residents of another city. Thus, the judgment of individual SWB should be more strongly related to ratings of SWB for fellow inhabitants than for people living in a different city. Combining this hypothesis with the general assumptions concerning evaluations of SWB based on egocentrism, people with low SWB should also rate the SWB of their fellow residents as relatively low and rate the SWB of residents of a different city more highly than that of inhabitants of their own city. Conversely, individuals with high SWB should rate the SWB of people living in a different city as lower than the SWB of people living in the same city.

In sum, both the self-enhancement and the egocentrism approach predict that people with high levels of individual SWB should rate the SWB of inhabitants in their own city more highly than the SWB of inhabitants of another city. However, for people with low levels of SWB, the self-enhancement and egocentrism approaches differ in their predictions: the former predicts that people with low SWB would rate the SWB of people from another city as lower than the SWB of people in their own city, whereas the latter predicts that these people would rate the SWB of residents in another city as higher than that of their fellow residents.

In a study by Schkade and Kahneman (1998), undergraduate students living in the midwest and southern California rated life satisfaction for either themselves or someone similar to themselves in one of the two regions. Results of this study showed that respondents in both regions predicted higher satisfaction for a Californian than for a midwesterner. According to the authors, "judgments of life satisfaction in a different location are susceptible to a focusing illusion: easily observed and distinctive differences between locations are given more weight in such judgments than they will have in reality" (Schkade and Kahneman, 1998, p. 340). In the case

of California, perceived superiority of the California climate played an important role in judgments of others' life satisfaction.

However, the connections between Schkade and Kahneman's (1998) investigation and the present research are limited. First, while in our study two well-known and popular cities (Munich and Venice) were selected, in the Schkade and Kahneman study, only one region known for its popular appeal was chosen, namely California. Further, in their study, judgments were made in reference to only one target person. In other words, undergraduates rated their own life satisfaction, *or* the life satisfaction of an individual living in one of two other regions. Thus, in this earlier study, different scores for each person referring to the perceived life satisfaction of not only themselves but also those in other locations were not available.

Research questions and hypotheses

With respect to the assessment of individual SWB and the SWB of others, new scales were developed for the present study. We were first concerned with the structural validity of our scales and their interrelations. However, the main research question was whether the pattern of results concerning judgments of individual SWB and judgments of SWB for others would support the motivated approach (self-enhancement) or the nonmotivated approach (egocentrism).

Structural validity of study measures. We expected that an exploratory factor analysis would reveal the proposed constructs under investigation referring to individual SWB, as well as SWB for people living in the same vs. another city. We assumed that our scales would be reliable and empirically distinguishable.

Relationships between the different measures of SWB assessed. We hypothesized that people with high SWB also judge the SWB of others to be significantly higher than would people with low SWB. Previous research supports this assertion, showing that individuals with positive attitudes towards themselves tend to also make more positive evaluations of other individuals (for reviews, see Buunk & van der Eijnden, 1997; Diener & Fujita, 1997; Ehrlich, 1973; Wills, 1981). However, a few studies have found opposite results (e.g., Gilbert, Giesler, & Morris, 1995). Further, as outlined above, we assume that individual SWB is more strongly and positively related to judgments of SWB for others living in the same city than to judgments of SWB of others living in another city.

Differences in the levels of SWB—self-other judgments. In line with both the self-enhancement and the egocentrism approach, we anticipate the BTAE for people with high levels of individual SWB. That is, people with high individual SWB should judge their own SWB higher than those of others. Concerning people with low levels of individual SWB, the self-enhancement and the egocentrism approach predict different patterns of results. Finding a BTAE for people of low levels of SWB would support the motivated approach (self-enhancement), whereas finding a below-average effect would support the nonmotivated approach (egocentrism).

Concerning analyses on the entire sample, the self-enhancement approach would predict the BTAE, as this effect should be general in nature and consequently valid for people regardless of their individual SWB. The egocentrism approach would also predict the BTAE when conducting analyses on the entire sample: egocentrism predicts the BTAE for people with high levels of individual SWB and a below-average effect for people with low individual SWB. Because people on average have high levels of individual SWB (e.g., Diener & Diener, 1996; Klar & Giladi, 1999); the BTAE should also be prevalent in our sample. In sum, both the self-enhancement and the egocentrism approach predict the BTAE when analyses are based on the entire study sample.

Differences in the levels of SWB—other-other judgments. Both the self-enhancement and the egocentrism approach predict that people with high levels of individual SWB will judge the SWB of inhabitants of their own city to be higher than the SWB for residents of the other city. Concerning people with low levels of individual SWB, the self-enhancement and the egocentrism approach predict a different pattern of results. Finding that people with low individual SWB judge the SWB for people living in a different city to be lower than the SWB of people living in the same city would support the motivated approach (self-enhancement). In contrast, finding that people with low individual SWB judge the SWB of individuals living in a different city to be higher than the SWB of individuals living in the same city would support the nonmotivated approach (egocentrism).

Concerning analyses on the entire sample, the self-enhancement approach would predict that the SWB of people living in the same city will be rated more highly than the SWB of people living in a different city, as this effect should be general in nature and consequently valid for people of all levels of individual SWB. Egocentrism would predict the

same result for analyses on the whole sample: people with high levels of individual SWB are expected to judge the SWB of people living in the same city to be higher than the SWB of people living in a different city. Although this approach predicts the reverse pattern of results for people with low levels of individual SWB, we should find higher ratings provided for the SWB of people living in the same city than for people living in a different city when analysing the sample as a whole. The reason is that most people can be assumed to judge themselves as rather happy. In sum, based on the assumptions of both the self-enhancement and egocentrism approaches, we anticipate that people in general will judge the SWB of people living in the same city to be higher than the SWB of people living in another city.

Method

Sample and data assessment

Data were collected by 18 trained test administrators in November/December of 2003 in two European cities, namely, Munich (Germany) and Venice (Italy). In both cities, test administrators recruited adults at random from different city sections and at different types of locations within each city. For example, participants were recruited on the street, in department stores, in the subway, in buses, and, in the case of Venice, on boats. People were asked to complete a short standardized questionnaire (two pages, self-report scales) if they reported having lived in the city in which we were recruiting for at least 2 years. Only individuals at least 18 years of age were included in this study. A German version of our questionnaire was used in Munich, an Italian version was employed in Venice. The German version was translated into Italian by bilingual individuals and the back-translation to German was conducted by individuals who were blind to the original item wordings. Based on this process of translation and back-translation, minor wording changes were made to the Italian version of the questionnaire to ensure the same meaning as the original German items. Participants in both cities required between 5 to 10 minutes to complete the questionnaire, and were not paid or reimbursed in any other way for participating in this study. Demographic characteristics of the sample are presented in Table I. The total sample consisted of 925 individuals (53% female) between 18 and 87 years of age ($M = 36.62$, $SD = 14.67$). The duration of residence in the city from which participants were recruited ranged from 2 to 82 years ($M = 26.31$, $SD = 19.16$).

Table I. Sample characteristics.

	Munich	Venice	Total
<i>N</i> (% females)	380 (61.31%)	545 (47%)	925 (53%)
Age			
Min/max	19/87	18/82	18/87
<i>M</i> (<i>SD</i>)	32.52 (12.75)	39.46 (15.24)	36.62 (14.67)
Years of living in the city			
Min/max	2/75	2/82	2/82
<i>M</i> (<i>SD</i>)	17.29 (15.23)	32.62 (19.11)	26.31 (19.16)

Study measures

Definition of SWB in the present study and choice of variables. Various definitions for this construct have been proposed, in which SWB is outlined as being mainly cognitive or affective in nature, or comprised of both elements (see Diener, 2000). In the present study, SWB is defined as an emotional construct consisting of both an affective and cognitive component (for more information on component models of emotional experiences, see Goetz, Zirngibl, Pekrun, & Hall, 2003; Scherer, 1993).

Different scales that were used for the assessment of SWB reflect the variety of definitions of this construct (Andrews & Robinson, 1991). In early research on this construct, SWB was operationalized using a single self-report item that referred mainly to the affective component of this variable, such as "How do you feel about your life as a whole?" (response scale ranging from "delighted" to "terrible"; Andrews & Withey, 1976). The PANAS (Positive and Negative Affect scale; Watson, Clark, & Tellegen, 1988) has been used to assess SWB by measuring the relationship between positive and negative emotional experiences (each with 10 items). The Satisfaction with Life scale (Pavot & Diener, 1993) has also been employed, which assesses primarily the cognitive aspects of SWB (sample item: "In most ways my life is close to the ideal").

Based on the data collection methods (e.g., on the street and in department stores) and the multi-perspective approach used in this study, scales assessing SWB had to fulfill three criteria: (1) they should be as short as possible, (2) it should be possible to calculate scale reliabilities, and (3) it should be unproblematic to parallelize scales in view of our different target persons. In other words, it should be easy to modify our scales in order to assess four distinct facets of SWB: general individual SWB, individual SWB with respect to one's city of residence, judgments of SWB for other residents of one's city, and judgments of SWB for residents of the other city.

As we found no scale meeting all of these criteria, we assessed SWB using two items reflecting our definition of this construct that included both an affective component (being happy) and cognitive component (being content). Items referring to these components are also integral part of numerous scales assessing SWB (e.g., The Oxford Happiness Questionnaire; Andrews & Robinson, 1991; Hills & Argyle, 2002) and can thus be assumed to have high content validity. In order to validate the measures of subjective well-being used in the present study, we included the well-established and often-used Satisfaction with Life scale (Pavot & Diener, 1993) in our questionnaire. All items in the study questionnaire are presented in Table II.

Satisfaction With Life (SWL) scale. The SWL scale (Pavot & Diener, 1993) consists of five items (sample item: "In most ways my life is close to the ideal"; see Table II) assessed using the following response format: (1) "not at all," (2) "hardly," (3) "a bit," (4) "almost," and (5) "exactly." This scale addresses primarily the cognitive components of SWB. The SWL scale was used to examine the external validity of the SWB scales under investigation based on previous research showing this scale to be a reliable, valid and widely-used measure of general well-being.

General individual SWB. In order to measure individuals' perception of their own SWB in general, we used the following two items: "How happy are you these days?" (affective component) and "How content are you with your life these days?" (cognitive component). Response format for all SWB scales consisted of a 5-point Likert scale. For the affective item (being happy) and cognitive item (being content) of each SWB measure, the response options were (1) "not happy (content) at all," (2) "rather unhappy (discontent)," (3) "slightly happy (content)," (4) "rather happy (content)," and (5) "very happy (content)."

City-specific individual SWB. Because we wanted to examine whether there was a difference in asking people about the well-being in general and their subjective well-being specifically in terms of living in their city, we also included items assessing personal well-being that explicitly mentioned the city in which the participant lived. More specifically, we asked people in Munich/Venice: "How happy are you these days in Munich/Venice?" and "How content are you with your life these days in Munich/Venice?"

SWB for residents of the same city. We asked participants about the level of SWB concerning other inhabitants of the city in which they lived by asking them the following questions: "How happy do you think people are in [OWN CITY] these days?" and "How content do you think people are in [OWN CITY] these days?"

SWB for residents of the other city. We also asked participants about their estimation of SWB for the other cities' inhabitants. Specifically, participants were asked "How happy do you think people are in (OTHER CITY) these days?" and "How content do you think people are in (OTHER CITY) these days?"

Results

Rationale for analyses

We first present the results of an exploratory factor analysis across all items under investigation in order to show the structural validity of our measures (Table II). This analysis was done separately for the German and Italian samples and structural differences between the two samples are outlined. After reporting scale reliabilities also for both countries (Table III), intercorrelations between the scales are discussed (conducted separately for

each sample; Table IV). The results concerning the mean levels of the measures for participants in Munich and Venice are shown in Table V, and the results of *t*-tests as well as Cohen's (1988) effect sizes for the differences between these scores are presented in Table VI. For analyzing whether judgments of SWB for other people (own and other city) differ according to the level of individual SWB, quartile groupings based on individuals' levels of city-specific individual SWB were constructed. SWB ratings are presented separately for the four groups (Figure 1).

Structural validity of study measures

Results of the exploratory factor analysis revealed a varimax rotated factor solution for the German and

Table III. Scale reliabilities.

	Number of items	α	
		Munich	Venice
Satisfaction with life	5	0.80	0.75
SWB: individual, general	2	0.78	0.84
SWB: individual, own city	2	0.86	0.82
SWB: others, own city	2	0.77	0.76
SWB: others, other city	2	0.73	0.73

Table II. Results of exploratory factor analysis.

	Varimax factor loadings							
	I		II		III		IV	
	M	V	M	V	M	V	M	V
<i>Satisfaction with life scale</i>								
In most ways my life is close to the ideal.	0.76	0.66	0.23	0.21	0.02	0.07	0.06	0.01
The conditions of my life are excellent.	0.66	0.69	0.36	0.25	0.04	0.14	0.04	0.02
I am satisfied with my life.	0.67	0.62	0.42	0.38	0.01	0.01	0.06	0.09
So far I have gotten the things I want in life.	0.79	0.79	0.12	0.10	0.15	0.11	0.01	0.03
If I could live my life over, I would change almost nothing.	0.69	0.59	0.03	0.05	0.16	0.07	0.11	0.03
<i>Individual subjective well being general</i>								
How happy are you these days?	0.35	0.45	0.68	0.71	0.01	0.08	0.20	0.10
How content are you with your life these days?	0.59	0.45	0.58	0.70	0.03	0.04	0.09	0.10
<i>City specific</i>								
How happy are you these days in [OWN CITY]?	0.01	0.11	0.83	0.79	0.28	0.24	0.08	0.11
How content are you with your life these days in [OWN CITY]?	0.17	0.13	0.81	0.85	0.25	0.17	0.03	0.04
<i>Subjective well being for residents of same city</i>								
How happy do you think people are in [OWN CITY] these days?	0.07	0.10	0.22	0.19	0.85	0.84	0.14	0.20
How content do you think people are in [OWN CITY] these days?	0.11	0.03	0.12	0.05	0.86	0.89	0.14	0.07
<i>Subjective well being for residents of the other city</i>								
How happy do you think people are in [OTHER CITY] these days?	0.01	0.08	0.05	0.02	0.17	0.20	0.86	0.87
How content do you think people are in [OTHER CITY] these days?	0.01	0.01	0.01	0.03	0.08	0.06	0.88	0.89

Note: Varimax rotation was used for this analysis. M: Munich sample; V: Venice sample.

Table IV. Scale intercorrelations.

	Satisfaction with life	SWB individual, general	SWB individual, own city	SWB others, own city
SWB: individual, general	0.58**			
SWB: individual, own city	0.62**	0.34**		
SWB: others, own city	0.41**	0.50**	0.35**	
SWB: others, other city	0.20**	0.25**	0.33**	0.27**
	0.16**	0.16**	0.06	0.28**
	0.03	0.12*	0.02	
	0.09	0.11*		

Note: Upper correlation, Munich; lower correlation, Venice.
* $p < 0.05$, ** $p < 0.001$.

Table V. Scale means and standard deviations.

	M		SD		<i>t</i>
	Munich	Venice	Munich	Venice	
Satisfaction with life	18.51	14.50	3.27	4.33	15.74**
SWB: individual, general	7.74	7.28	1.52	1.87	4.15**
SWB: individual, own city	7.60	7.44	1.75	2.10	1.26
SWB: others, own city	6.48	6.15	1.36	1.68	3.26*
SWB: others, other city	6.86	6.58	1.25	1.54	2.88*

* $p < 0.01$, ** $p < 0.001$.

Table VI. Results of *t* tests (paired sample) and effect sizes.

	SWB individual, general	SWB individual, own city	SWB others, own city
SWB: individual, own city	1.66 (0.06) 2.20* (0.08)		
SWB: others, own city	13.68** (0.88) 11.31** (0.64)	12.93** (0.72) 13.51** (0.68)	
SWB: others, other city	9.04** (0.64) 6.35** (0.41)	6.96** (0.49) 6.77** (0.47)	4.63** (0.29) 5.44** (0.27)

Note: *t* values refer to the mean differences resulting from subtracting the value of the construct in column from the value of the construct in row. Upper *t* values: Munich sample. Lower *t* values: Venice sample. Numbers in parentheses: Cohen's (1988) effect size *d*.

* $p < 0.05$, ** $p < 0.001$.

the Italian samples which converged by six iterations and revealed a four-factor structure (criteria for extraction: eigenvalue > 1) that together explained 69.05%/66.70% (Munich/Venice) of the total variance. The factor structure was similar for both samples (see Table II). In order to compare the factor analysis findings for the Italian and German samples, factor loadings were Fisher *z*-transformed according to the following formula:

$$z = \frac{1}{2} \log_e \frac{1+r}{1-r}$$

All *z*-values from the Italian sample were subtracted from the corresponding *z*-values from the German sample. The amount of the difference is an indicator for the effect of the sample on the results (see Cohen, 1988). Because the difference values were within a range of $I = [0.00; 0.23]$ and had a mean difference value of 0.07 ($SD = 0.06$) it can be concluded that there was a very weak effect of the sample (i.e., city) on the results of the factor analysis (Cohen, 1988). In sum, the factors observed reflected the intended subscales of our questionnaire: *Factor I* (accounting for 23.71%/20.88% of variance, eigenvalue = 3.08/2.71) included all items of the

Satisfaction with Life Scale, *Factor II* (accounting for 19.82%/20.43% of variance, eigenvalue = 2.58/2.66) consisted of all items concerning individual SWB, *Factor III* (accounting for 12.95%/12.80% of variance, eigenvalue = 1.68/1.66) represented judgments of SWB for other inhabitants of one's own city, and *Factor IV* (accounting for 12.58%/12.60% of variance, eigenvalue = 1.64/1.64) consisted of judgments of SWB for residents of the other city.

From a structural perspective, this solution suggests that it is not necessary to separate individual SWB into general and city-specific SWB subscales (see Factor II). However, the relationships between each set of items with the other factors indicate that they do assess different facets of individual SWB. Specifically, items from the general SWB subscale ("How happy are you these days?" and "How content are you with your life these days?") showed relatively strong loadings on Factor I (satisfaction with life). In fact, the second item from the general individual SWB subscale (feeling content) loaded relatively high on Factor I (0.59/0.45), indicating that general individual SWB, and particularly its cognitive component, was significantly related to the SWL scale. In contrast, items from city-specific SWB

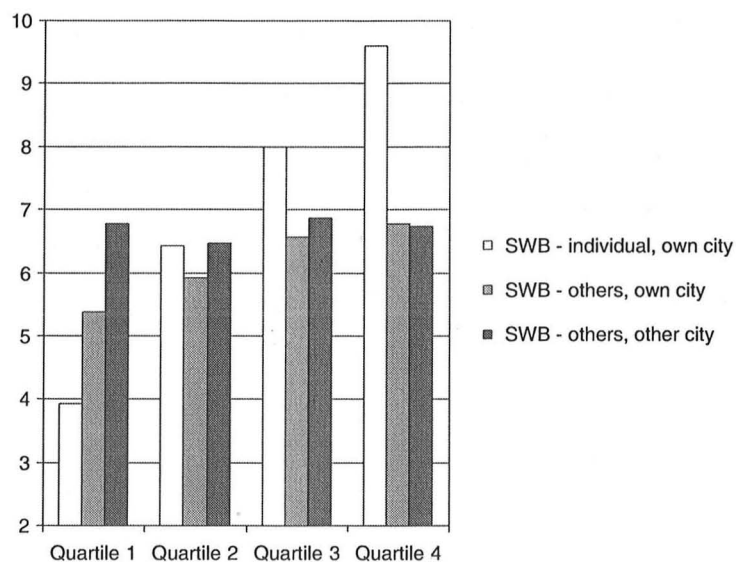


Figure 1. Means of the scales assessing SWB related to cities; quartiles were built according to the levels of individual city related SWB (theoretical minimum = 2, theoretical maximum = 10 for each scale).

subscale (“How happy are you these days in [OWN CITY]” and “How content are you with your life these days in [OWN CITY]?”) show very weak relationships to SWL, and instead were found to load on Factor III (SWB for residents of the same city). The reason for that might be that both the items of Factor III (subjective well-being of people living in the same city) and city-specific SWB explicitly focus on the city in which the participant lives. As a consequence of these differential relationships for the general and city-specific SWB items, we decided to construct two corresponding scales from these items which were assessed in subsequent analyses.

Interrelations between study measures

Table III shows the characteristics of the five scales that were created based on the results of the exploratory factor analysis. The scales show sufficient reliabilities both for the German and the Italian samples ($0.73 \leq \alpha \leq 0.86$; number of items: $2 \leq N \leq 5$). The correlations between these five scales are presented in Table IV. Further, differences between the Fisher z -transformed correlations between these five scales were also calculated for the two samples. The amount of the differences lies in the interval of $I = [0.01; 0.19]$ and the mean difference is 0.06 ($SD = 0.05$), indicating a very weak effect of the sample on the size of the correlations (see Cohen, 1988). In the correlation matrix presented in Table IV, it is important to note that the within-columns correlations become weaker

from the top to the bottom of the table. For example, in the first column, satisfaction with life is more strongly related to general individual SWB ($r = 0.58/0.62$, Munich/Venice $p < 0.001$) than to city-specific individual SWB ($r = 0.34/0.41$, $p < 0.001$). Consistent with the results of the exploratory factor analysis (see Table II), general and city-specific individual SWB are highly correlated ($r = 0.50/0.63$, $p < 0.001$). Both satisfaction with life and general individual SWB correlate positively with the ratings of SWB for other residents of one's own city ($r = 0.20/0.16$, $r = 0.25/0.16$, respectively; $p < 0.001$).

Thus, high individual SWB seems to lead to higher ratings of SWB for others. Even stronger is the relationship between the individual SWB in the context of one's city of residence and the perceived SWB of the other inhabitants in one's city ($r = 0.35/0.33$, $p < 0.001$), indicating that people who report a high level of city-specific individual SWB think that other people in their city feel similarly. Furthermore, ratings of SWB for residents of one's own city were also positively related to judgments of SWB for inhabitants of the other city ($r = 0.27/0.28$, $p < 0.001$). There was no significant correlation between city-specific individual SWB and judgments of SWB for inhabitants of the other city ($r = 0.06/0.02$, $p = 0.24/0.61$).

Mean levels of subjective well-being

Differences in mean levels between cities. Table V shows the means and standard deviations for the five scales

employed in this study. Looking first at the absolute scores of the scales, one interesting finding is evident in that with one exception (Satisfaction with Life, Venice sample), participants had higher ratings than the midpoint on both the total Satisfaction with Life Scale (i.e., >15) and the SWB measures (i.e., >6). These ratings above the midpoint of the scales were statistically significant ($p < 0.05$ for SWB of others in own city, Venice sample; $p < 0.001$ for the other scales) and consistent with previous studies on life satisfaction (Diener & Diener, 1996; Freedman, 1978; Klar & Giladi, 1999; Lykken & Tellegen, 1996; Schkade & Kahneman, 1998).

Analysis of variance showed that participants living in Munich had significantly higher ratings on the five scales assessing SWB and SWL than people living in Venice ($F(5, 806) = 51.06, p < 0.001$). The results of post-hoc tests (t -tests) are displayed in Table V. With one exception (individual SWB related to one's own city), all scale means were significantly higher for the German sample. We found no gender differences for the five scales ($F(5, 806) = 1.79, p = 0.11$) and the interaction effect for country and gender was also not significant ($F(5, 802) = 1.47, p = 0.20$). Despite the statistically significant difference between the two cities assessed, these mean differences should be interpreted cautiously because although the German items were translated to Italian, back-translated to German, and the Italian items modified in several translations, the different languages of the questionnaires could have led to unequal item difficulties due to the item wordings and response format.

Differences in mean levels within cities. Of foremost interest with respect to our research questions are the differences in the means of the four scales assessing SWB within cities. We did not integrate the SWL scale in this analysis, as the mean of the SWL scale is due to its exclusively cognitive items not directly comparable with the means of the SWB measures (affective-cognitive constructs). In line with our theory, a multivariate analysis of variance with repeated measures showed that both for the German and Italian samples, the four SWB scale means differed significantly (German sample: $F(3, 358) = 69.11, p < 0.001$; Italian sample: $F(3, 473) = 54.79, p < 0.001$). Table VI shows the results of the t -tests and Cohen's (1988) effect sizes for comparing these measures for participants in Munich and Venice. Only a slight difference between general and city-specific individual SWB was found (Munich/Venice: $t = 1.66/-2.20; p = n.s./ < 0.05; d = 0.06/-0.08$). All other differences were highly significant with effect sizes ranging from weak to very strong ($4.63 \leq |t| \leq 13.68, p < 0.001; 0.27 \leq |d| \leq 0.88$). The pattern of results was similar

for the German and Italian samples: individual SWB (both in general and city-specific) was rated most highly ($M = 7.74/7.28$ for general SWB; $M = 7.60/7.44$ for city-specific SWB), followed by the ratings of SWB for inhabitants of the other city ($M = 6.86/6.58$) and finally by the ratings of SWB for other residents of one's own city ($M = 6.48/6.15$). Thus, both in Munich and Venice, participants rated their individual SWB significantly higher than their ratings of SWB for other inhabitants of their city. This effect sizes ranged from medium to strong ($0.64 \leq |d| \leq 0.88$; see Cohen, 1988). Furthermore, both samples rated the SWB of inhabitants of the other city higher than the SWB of inhabitants of the city in which they lived (small effect sizes: $|d| = 0.29/0.27$).

Differences in judgments of other's SWB based on city-specific individual SWB. In these analyses, we concentrated on the three city-related measures of SWB. We constructed quartiles according to subjects' individual city-related SWB. Means of the individual city-related SWB scale, and number of students for each of the four groups are as follows: $M = 3.94, n = 126$ for quartile 1; $M = 6.42, n = 260$ for quartile 2; $M = 8.00, n = 236$ for quartile 3; and $M = 9.60, n = 293$ for quartile 4. In order to investigate whether the pattern of judgments of the four quartiles is independent of country and gender, we calculated a generalized linear model with repeated measures (individual SWB, own city; SWB of others, own city; SWB of others, other city). Analysis of variance showed a main effect of SWB ($F(2, 823) = 109.13, p < 0.001$) but no interaction between SWB, quartiles, and genders ($F(8, 1648) = 0.63, p = 0.76$), SWB, quartiles, and country ($F(8, 1648) = 1.86, p = 0.06$) or between all four factors ($F(8, 1648) = 1.32, p = 0.23$). As a consequence of this analysis, results on differences in judgments of other's SWB based on city-specific individual SWB are shown for the entire sample (see Figure 1).

Concerning ratings of individual city-specific SWB and the SWB of others in one's own city, results reflect the positive correlation found between the constructs (see Table IV). In other words, the higher one's individual SWB, the higher their ratings of SWB for others in their city. With respect to the differences between individual SWB and judgments of SWB for one's fellow inhabitants, Figure 1 shows that people belonging to quartile 1 judged their individual SWB as lower than the SWB of their fellow inhabitants. In contrast, for people belonging to quartiles 2 to 4, the opposite result emerged (differences are significant within each quartile, $p < 0.01; t = -9.67/5.60/15.77/31.05$ for

quartiles 1/2/3/4). Thus, a below-average effect was found for quartile 1 and a better-than-average effect was found for quartiles 2 through 4.

As for individual SWB and judgments of SWB for inhabitants of the other city, results reflect the nonsignificant correlation between these constructs reported earlier (see Table IV). Figure 1 shows that participants in each quartile rated the SWB for inhabitants of the other city as slightly above the midpoint of the SWB scale (i.e., >6). In terms of differences between individual SWB levels and judgments of SWB for inhabitants of the other city, Figure 1 shows that people in quartile 1 rated their individual SWB lower than the SWB for inhabitants of the other city ($t = -16.54, p < 0.01$; below-average effect). People in quartile 2 judge their own SWB as similar to the SWB for inhabitants of the other city ($t = -0.28, p = 0.78$). For individuals in quartiles 3 and 4, the BTAE was observed: people in these quartiles rated their own SWB more highly than the SWB for inhabitants of the other city ($t = 12.39/29.29$, each $p < 0.01$).

As a consequence of the level differences outlined above, differences between judgments of SWB for fellow inhabitants and those for SWB for inhabitants of the other city are found to decline from quartile 1 to quartile 4. Although these differences are significant within the first three quartiles ($t = -7.21/-5.09/-3.00$, each $p < 0.01$), judgments of SWB for fellow inhabitants and for residents of the other city are nearly the same in quartile 4 ($t = -0.14, p = 0.89$). As shown in Figure 1, this decline in differences in judgments of others' SWB (fellow inhabitants versus inhabitants of the other city) across the quartiles is due to the fact that judgments of SWB for residents of the other city remained similar across the quartiles while judgments for SWB of fellow inhabitants increased with increasing individual SWB.

Summary and discussion

As hypothesized, exploratory factor analysis showed that for both the German and Italian samples, each of the four types of SWB assessed were empirically distinguishable, namely (a) general individual SWB, (b) city-specific individual SWB, (c) ratings of SWB for other residents of one's own city, and (d) ratings of SWB for people living in another city. Factor analysis showed that items concerning individual SWB in general and with respect to one's city of residence loaded on one common factor. However, because the specific items of this factor showed relatively different relationships to the other factors, we decided to separate this scale for further analysis. Consequently, based on both factor and correlational analyses, four SWB scales, in combination with an

established measure of life satisfaction (Satisfaction With Life scale), were subsequently used for the assessment of different aspects of SWB, each of which showing good reliability.

In line with previous studies on the relationship between attitudes towards oneself and evaluations of other persons (e.g., Buunk & van der Eijnden, 1997; Diener & Fujita, 1997), there was also a significant positive correlation between the ratings of one's own SWB and ratings of SWB for other inhabitants in one's city. Furthermore, as hypothesized, city-specific individual SWB correlated much less strongly (i.e., nonsignificantly) with judgments of SWB for inhabitants of the other city than with judgments of SWB for residents of one's own city.

For our analyses on the BTAE, we compared individual SWB with ratings of SWB for inhabitants living in the same and in another city. Analyses on the entire sample showed that in both the Munich and Venice samples, and for both genders, participants judged their individual SWB to be significantly higher than the SWB of others. However, when differentiating our sample based on levels of individual city-related SWB, a more detailed picture emerged. People with low individual SWB rated themselves as below average whereas people with high SWB judged themselves as better than average. Thus, the BTAE we found when analysing the sample as a whole was a consequence of the overall high judgments of people's individual SWB.

The below-average effect found in our study for people with low individual SWB cannot be accounted for by self-enhancement theory. In other words, this approach would assume that even when people judge their own individual SWB as relatively low, they should rate the SWB of others as even lower or at least at the same level in order to enhance or maintain their self-worth. Nevertheless, it is important to note the possibility of a floor effect for people with low SWB in that, the lower one's own level of SWB, the less possible it is to rate the SWB of others as even lower. However, the mean level of individual city-related SWB for people belonging to the first quartile (lowest SWB) was high enough to allow judging SWB of others as even lower.

Although the self-enhancement approach fails to explain the below-average effect, egocentrism as a nonmotivated approach can account for this effect. People's judgments related to themselves and to others are inherently egocentric, due to differences in the representation or processing of information related to themselves vs. others (Chambers & Windschitl, 2004). Generally, people have more access to information relevant for judging their own as opposed to others' SWB, and also give more attention to answering questions concerning themselves rather than others. For example, low ratings of

individual SWB might result from the individual thinking of numerous recent and past experiences that were negative in nature. Due to these situations being most personally salient, they would likely lead to low judgments of individual SWB. As such negative events are not as readily available and less salient when they happen to others, people with low individual SWB would be expected to judge the SWB of others as higher than their own SWB, that is, a below-average effect should emerge. Vice versa, the BTAE should emerge for judgments of people with high individual SWB.

Some unexpected results were found when contrasting judgments of SWB for residents living in the same and in another city for individuals with differing levels of individual city-related SWB. Both the self-enhancement and the egocentrism approach predicted that when analyzing the entire sample, the level of SWB for people living in one's own city should be higher than the level of SWB for inhabitants of another city. However, we found the *opposite* results in both the German and Italian samples. Analyzing groups of people with different individual city-related SWB separately gave more insight in these unexpected findings. In none of the four groups were the assumptions of self-enhancement theory confirmed; in no group were the judgments of SWB for inhabitants living in their own city higher than the SWB ratings for inhabitants of another city.

However, these results appear to provide empirical support for the egocentrism approach. As outlined above, people's judgments related to themselves and to others are assumed to be inherently egocentric based on hypothesized differences in the representation or processing of information related to oneself vs. others. It is reasonable to assume that people have the most access to information related to their individual SWB pertaining to their city of residence (e.g., specific experiences in shopping malls), less information about others living in their city (e.g., derived from everyday conversations with others or observed facial expressions), and very little information about people living in another city. The pattern of results found in our study is to a great extent in line with these assumptions. People with different levels of individual city-related SWB rated the SWB for residents of another city very similarly (slightly above the midpoint of the scale), whereas they rated the SWB for fellow inhabitants positively relative to their own SWB.

However, according to the egocentrism approach, people with high levels of city-related SWB should judge the individual SWB for others living in their city to be higher than the SWB for residents in another city. Our data did not confirm this assumption. A factor that may have contributed to

our finding that most participants rated the SWB for people living in another city higher than that of their fellow residents might have been that both Munich and Venice are attractive tourist destinations visited by millions each year. For people living in either Munich or Venice, positive attributes of the other city may be particularly accessible, whereas the negative aspects of these cities might be more apparent to individuals actually living in that city. Thus, when asked to rate the SWB of individuals living in Venice, people living in Munich could be familiar primarily with aspects of Venice that are assumed to contribute to the SWB of those living there, such as the pleasant climate and beautiful architecture. Conversely, people living in Venice may know Munich best as being located near the impressive Alps and hosting the world-famous Oktoberfest festival. All of these positive aspects are easily observable and distinctive differences between the two cities, and could lead to a so-called *focusing illusion* (Schkade & Kahneman, 1998). That is, judgments of SWB for people living in the other city may have focused on a subset of well-known positive characteristics, with this subset being given greater weight relative to negative factors that were not considered.

Limitations and implications

In the present study, data were collected from participants residing in only two cities, namely Munich and Venice. In order to assess the generalizability of our results, this investigation should also be done in a similar manner in other cities both within the same country and in other countries, and also in other cities varying in size and attractiveness.

For assessing judgments of individual SWB and SWB of others, we used the indirect method in which people were asked to make judgments about themselves and others. For a methodological extension of our study, future investigations might also integrate a direct assessment in which participants are asked to indicate how their SWB actually compares with that of others (e.g., "How happy do you think you are compared with people living in your city?"; "How happy do you think people living in Venice are compared to people living in Munich?"). Scattered studies using both the indirect and direct methods indicate that the extent of bias is greater when the judgments are elicited directly (Kruger, 1999). The reason for this is that in addition to egocentrism, other nonmotivated accounts may be at work when using the direct method, such as *focalism*, which pertains to "the possibility that the *focal*, or *target*, entity that is specified by a comparative question tends to carry more weight in a comparative

judgment than does the *referent* that is specified by the question” (Chambers & Windschitl, 2004, p. 821). Studies also employing direct comparative assessments may prove useful in exploring whether a below-average effect can be found for people low in individual SWB, and whether the BTAE can be observed for people with high individual SWB.

In the present study, we used a short and reliable instrument for the assessment of individual SWB and of the perceived SWB of inhabitants of one's own city and in another city. Consistent with the suggested areas for further research proposed by Diener (2000), an international assessment of SWB in individuals from different cities and countries using these measures could provide intriguing results with respect to how the inhabitants of these cities perceive their own emotional well-being, the SWB of their fellow inhabitants, as well as the SWB for inhabitants of various other cities. For example, when comparing the results from cities that share a common language, scale levels could be compared directly, without concern for language biases, and the relative levels of individual SWB and the SWB of others in one's own and in other cities could be examined. Nonetheless, because the differences between judgments of one's own SWB and the SWB of others (fellow inhabitants and inhabitants of a different city) observed in the present study were found independent of the language used (i.e., German vs. Italian), one would expect a similar pattern of results to be observed between other cities in which different languages are spoken (e.g., Spanish vs. Greek). In sum, future studies could serve to provide empirical support for the findings of the present study, and further elucidate the processes involved in how people rate not only their own emotional well-being, but also the subjective well-being of others living both nearby and miles away.

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