



# SCI/SSCI论文精选

## (2002-2010)

Papers Cited in SCI/SSCI (2002-2010)

北京体育大学出版社  
Beijing Sport University Press

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# 出版说明

如何正确评价基础科学研究成果已引起越来越广泛的社会关注。而被SCI、SSCI和EI等三大检索系统收录的科技论文的多寡则被看作衡量一个国家的基础科学研究水平、科技实力和科技论文水平高低的重要评价指标。那么，究竟什么是SCI、SSCI、EI以及影响因子呢？

《科学引文索引》(Science Citation Index, 简称SCI)是自然科学领域基础理论学科方面的重要期刊文摘索引数据库。它创建于1961年,创始人是美国科学情报研究所所长Eugene Garfield(1925.9.15)。利用它,可以检索数学、物理学、化学、天文学、生物学、医学、农业科学以及计算机科学、材料科学等学科方面自1945年以来重要的学术成果信息,SCI常常还被国内外学术界当作制定学科发展规划和进行学术排名的重要依据。

《社会科学引文索引》(Social Science Citation Index, 简称SSCI)创刊于1969年,收录数据从1956年至今,是社会科学领域重要的期刊文摘索引数据库。数据覆盖了历史学、政治学、法学、语言学、哲学、心理学、图书情报学、公共卫生等社会科学领域。

《工程索引》(Engineering Index, 简称EI),创刊于1884年,由Elsevier Engineering Information Inc.编辑出版。主要收录工程技术领域的论文(主要为科技期刊和会议录论文),数据覆盖了核技术、生物工程、交通运输、化学和工艺工程、照明和光学技术、农业工程和食品技术、计算机和数据处理、应用物理、电子和通信、控制工程、土木工程、机械工程、材料工程、石油、宇航、汽车工程等学科领域。

影响因子(Impact Factor, 简称IF)是美国ISI(科学信息研究所)的JCR(期刊引证报告)中的一项数据。即某期刊前两年发表的论文在统计当年的被引用总次数除以该期刊在前两年内发表的论文总数。该指标是相对统计值,可克服大小期刊

由于载文量不同所带来的偏差。一般来说，影响因子越大，其学术影响力也越大。

本书选取2002—2010年被SCI、SSCI全文收录的以我校教师为第一作者，且以北京体育大学为第一完成单位的论文18篇（其中SCI收录论文16篇，SSCI收录论文2篇）。全书论文以发表时间排序。

该书出版目的是为了鼓励和引导教师在国际学术期刊上发表学术论文，提高教师学术水平，开阔学术视野，促进学科的发展，为培养高水平的人才打基础。

北京体育大学科研处

2011年3月

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# **Moderating effects of gender and age on the relationship between self-esteem and life satisfaction in mainland Chinese**

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Previous studies indicated that not only individual self-esteem (e.g., Diener & Diener, 1995; Nero, 1993) but also collective self-esteem (e.g., Crocker, Luhtanen, Blaine, & Broadnax, 1994; Zhang & Leung, 1999) contributed to prediction of life satisfaction. When the effects of individual and collective self-esteems on life satisfaction have been demonstrated, a further question in life satisfaction research is that whether the relationship between self-esteem and life satisfaction is subject to the influence of boundary conditions. The present investigation focused on moderating effects of gender and age on the relationship between self-esteem and life satisfaction in Chinese people. Participants were 1347 Mainland Chinese (aged from 14 to 88 years, 52.3% female) from three generations. They finished the General Life Satisfaction Scale (Leung & Leung, 1992), Life Domain Satisfaction Scale (revised from Michalos, 1985), Self-Esteem Scale (Rosenberg, 1965) and Collective Self-Esteem Scale (Luhtanen & Crocker, 1992). Hierarchical regression analysis indicated that the relationship between collective self-esteem and general life satisfaction was stronger for the male participants than for the female participants. The effect of individual self-esteem on life domain satisfaction was stronger in the male group than in the female group. The effect of individual self-esteem on life domain satisfaction was stronger in the older people than in the younger people. However the effect of collective self-esteem on life domain satisfaction was stronger in the younger people than in the older people. These results might reflect life task differences and social expectation differences between male and female, younger and



older people. Additional research is needed with other types of samples, especially with samples from some individualist cultures to see whether the results could generalize to these cultures.

Psychologists have paid more attention to theoretical and empirical work of people's subjective wellbeing (SWB) since the 1960s (Diener, 1984). *American Psychologist* has recently even contributed a special issue to the discussion on positive psychology. The editors (Seligman & Csikszentmihalyi, 2000) have called on a change in the psychological research approach from the ill-being model or the disease model to the wellbeing model or "positive psychology."

What is SWB? Why do people have different levels of SWB? Who enjoys a higher level of SWB? And how can we better predict people's level of SWB? These fundamental questions have interested and confused human beings for many centuries because SWB is central to human existence. The first question is related to the nature of SWB, whereas the other three questions are related to conditions for SWB. The present investigation will try to address the issue of prediction of SWB.

SWB is a person's evaluative reactions to his or her life (Diener & Diener, 1995). SWB research is mainly concerned with questions in two areas. The first research area is related to the structure (or components) and measurement of SWB. Today most researchers agree that SWB is a hierarchical and multidimensional concept (Diener, 2000; Diener, Sub, Lucas, & Smith, 1999; Feist, Bodner, Jacobs, Miles, & Tan, 1995). SWB can be separated into cognitive or affective aspects (Andrews & Withey, 1976; Diener, 1984; Diener et al., 1999), and state or trait aspects (see a review by Diener et al., 1999). Life satisfaction is a cognitive aspect of SWB. It can be divided further into general life satisfaction and life domain satisfaction (Diener, 1984; Diener et al., 1999; Veenhoven, 1996). The present investigation will focus on life satisfaction.

The second research area of SWB is related to the prediction of SWB and boundary conditions for its prediction. In the long pursuit of understanding SWB, psychologists have made great efforts to search for predictors of life satisfaction and the boundary conditions for the relationship between life satisfaction and its predictors. Five kinds of variables have been widely employed to predict life satisfaction, including demographic variables, social relationships, personality, coping, and self-esteem. Self-esteem was

suggested to be one of the strongest predictors of life satisfaction (Diener, 1984). For example, in a study examining relationships among some psychological variables in institutionalized elderly residents, Nehrke, Hulicka, and Morganti (1980) found a moderate correlation ( $r = .43$ ) between life satisfaction and self-esteem. In a large-scale survey, Campbell (1981) also found a relatively large correlation (.55) between these two variables. Campbell, Converse, and Rodgers (1976) discovered that self-esteem showed the highest correlation with life satisfaction of any variable examined. Nero (1993) found in an adolescent sample that the strongest predictor of satisfaction with life was self-esteem, followed by loneliness, which reflects social isolation. More recently, in a study involving 131,118 college students in 31 countries, Diener and Diener (1995) found a correlation of  $r = .47$  between life satisfaction and self-esteem.

It is obvious that research and theory on self-esteem and its relationship to life satisfaction has overwhelmingly emphasized the individual aspects of the self. That is, research and theory have emphasized how feelings of self-worth and self-respect are derived from or related to an individual's personal attributes, competencies, and standing relative to other individuals. The general public, especially in the Western culture; appreciates the importance of individual self-esteem in everyday human functioning. Politicians, educators, social workers, and others have come to hope that individual self-esteem may hold the key to understanding and even solving many social problems and achieving wellbeing.

More recently psychologists began to pay attention to the differentiation between individual self-esteem and collective self-esteem. Whereas individual self-esteem refers to feelings and evaluations of self-worthiness (Baumeister, 1998), collective self-esteem refers to feelings and evaluations of the worthiness of a social group, such as racial, ethnic, or work groups, of which one is a member (Crocker & Major, 1989). Research evidence shows that collective self-esteem could also be a potentially strong predictor of life satisfaction. Crocker, Luhtanen, Blaine, and Broadnax (1994) conducted a study on the contribution of collective self-esteem to psychological wellbeing. They found that even after partialing out the effects of individual self-esteem on life satisfaction, collective self-esteem still correlated with certain aspects of general life satisfaction. Zhang and Leung's study (1999) revealed that although individual self-esteem is the best predictor

of athletes' general life satisfaction, collective self-esteem is the most powerful predictor of their training and competition satisfaction. These two studies indicated the limitation of only using individual self-esteem to predict life satisfaction and the necessity of using collective self-esteem as a life satisfaction predictor.

When the effects of individual and collective self-esteem on life satisfaction have been demonstrated, a further question in life satisfaction research is whether the relationship between self-esteem and life satisfaction is subject to the influence of boundary conditions. Previous studies indicated that there are some factors which moderate this relationship. For example, although self-satisfaction has been found the best predictor of life satisfaction among adults (Campbell et al., 1976), parent relationship has been demonstrated the best predictor of life satisfaction among adolescents (Leung & Leung, 1992), suggesting that age might be a moderator between self-esteem and life satisfaction. Another example is that the relationship between (individual) self-esteem and life satisfaction has been found stronger in individualist cultures than in collective cultures (Diener & Diener, 1995), suggesting that culture works as a moderator. These findings remind life satisfaction researchers that the link between self-esteem and life satisfaction is not consistent when there are differences in people's background. Therefore defining the boundary conditions for the relationship between self-esteem and life satisfaction and life satisfaction is one of challenges that life-satisfaction researchers are facing. The present investigation will focus on two possible boundary conditions, i.e., gender and age. The questions we will try to answer in the present investigation are whether gender and age are moderators between self-satisfaction.

Past research on life satisfaction largely employed Western people and similar research employing Mainland Chinese is lacking. This is surprising because Mainland Chinese constitute about one-fourth of the world's population. Their psychological change and wellbeing during rapid social, political, and economic development due to the open-door policy have attracted much attention from different disciplines of social science, but only in recent years. Some researchers have begun to study life satisfaction in China. For example, in a study on the urban elderly, Guo (1992) found that among 12 variables, satisfaction with finance, subjective health, depressive symptoms, occupation, and close friends became predictors of life satisfaction in the stepwise regression model. In a more

recent study on the rural and urban elderly, Xiang, Wu, and Lin (1995) found that in total 17 variables were correlated with life satisfaction in the stepwise regression model. Among these 17 variables, subjective health, family harmony, finance situation, mood, and education contributed most to the explained variance in life satisfaction.

Although these studies helped to improve our understanding of life satisfaction of Mainland Chinese, there are at least three reasons for further research. First, the previous research focused mainly on the elderly (e.g., Guo, 1992; Xiang et al., 1995; Xu, 1994; Yang, 1988). Life satisfaction of adults (no studies found) and adolescents (only one study found, e.g., Tan, 1998) got much less attention. However life satisfaction and the relationship between life satisfaction and its predictors might differ in different generations. Second, previous studies in China neglected the contribution of self-esteem, especially collective self-esteem, to life satisfaction. However, the collective aspect of self-esteem should be paid more attention in a collective culture such as that of China. Third, previous studies only analyzed the main effect of gender and age without paying attention to possible moderating effects of gender and age. These three reasons justify the effort of the present investigation to go further into this important area.

Therefore, in our exploration of moderating effects on the relationship between self-esteem and life satisfaction in Chinese people, individual self-esteem and collective self-esteem will be taken as two predictors, general life satisfaction and life domain satisfaction will be taken as two criterion variables, and gender and age will be treated as two moderators.

## **METHOD**

### **Participants**

Data collection for the present study was conducted in two large cities in Mainland China, Beijing and Chongqing. Beijing is located in the northern part and Chongqing in the southern part of China. Participants came from four age groups. The first age group consisted of 427 senior high school students, the second of 366 university students, the third was 360 parents of the senior high school students, and the last was 194 grandparents of those students. The total sample size was 1347. The participants' ages

ranged from 14 to 88 years with an average of 31.88 ( $SD = 19.09$ ). Among them, 46.8% were male (631) and 52.3% were female (704). Twelve participants did not report their gender. Summary information of sample size, age range, and age mean in age and gender groups is presented in Table 1.

## Measures

The information about age, gender, and other demographic variables was collected on the last page of the questionnaire booklet.

### General life satisfaction

General life satisfaction has been defined as a person's overall evaluation of their quality of life based upon self-selected standards (Shin & Johnson, 1978). In the present investigation, it was measured by the General Life Satisfaction Scale (GLSS), which was originally used in Leung and Leung's (1992) study. The GLSS is a combination of the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) and a global life satisfaction question. The SWLS consists of 5 items asking respondents how they feel about their life in various ways (e.g., "I am satisfied with my life"). The alpha coefficient of SWLS is .87 (Diener et al., 1985). The global measure is from a single-item scale by Andrews and Withey (1976). In the present investigation it was revised to "In general, I feel that my life is terrible" so that the same rating scale could be used for all 6 items. Participants were asked to check one of seven categories from 0 (strongly disagree) to 6 (strongly agree). The alpha coefficient for GLSS in this investigation was .71.

**Table 1 Sample size, age range, and age mean in age and gender groups**

Age group	Male			Female			Total		
	Sample size	Age range	Age mean	Sample size	Age range	Age mean	Sample size	Age range	Age mean
Middle school	205	14-21	15.43	216	15-23	15.39	423	14-33	15.41
University	177	18-24	20.77	179	17-32	20.50	356	17-32	20.63
Parent	155	40-63	44.03	191	35-74	42.52	348	35-74	43.19
Grandparent	83	54-88	70.47	103	43-87	68.17	189	43-88	69.11
Total	620	14-88	31.47	689	15-87	32.13	1316	14-88	31.88

### **Life domain satisfaction**

Life domain satisfaction was measured by the Life Domain Satisfaction Scale (LDSS). It was adopted from Michalos' (1985) method but the scope of inquiry was enlarged from Michalos's 8 domains to 13 domains. Back-translation was used to improve the linguistic equivalence of the Chinese version. Participants were asked to rate their satisfaction with 13 life facets on a 7-point Likert scale (0 = very unsatisfactory, 6 = very satisfactory). The 13 life facets include health, finances, spouse relationship (if applicable), child relationship (if applicable), sister or brother relationship (if applicable), parent relationship (if applicable), peer relationship, friend relationship, boss (or teacher) relationship, paid employment or study, housing, recreation activity, and education. Previous research (Lance, Lautenschlager, Sloan, & Varca, 1989; Larsen, Diener, & Emmons, 1985) demonstrated test-retest reliabilities in the .80s as well as the construct validity (Andrews & Crandall, 1976; Diener, 1984; Scarpello & Campbell, 1983) of single-item satisfaction measures such as these. A composite score of life domain satisfaction was computed by averaging these 13 items. The coefficient alpha for LDSS in this investigation was .85.

### **Individual self-esteem**

As in the study by Zhang and Leung (1999), individual self-esteem was measured by Rosenberg's (1965) 10-item Self Esteem Scale (SES). Its average reliability coefficient is greater than .80 (Rosenberg, 1965). The Chinese version came from Ji and Yu's (1993) work. An example question is "I feel that I'm a person of worth, at least on an equal plane with others." Items were anchored with the revised 7-point Likert scale of agreement (0 = strongly disagree to 6 = strongly agree). The alpha coefficient in this investigation was .78.

### **Collective self-esteem**

Collective self-esteem was measured by Luhtanen and Crocker's (1992) Collective Self-esteem Scale (CSES). This 16-item scale has two forms: general and race-specific. The general form was used in this study with some revision on the reference groups. Originally the instructions of CSES defined the reference groups as related to *gender, race, religion, nationality, ethnicity, and socioeconomic class*. The revised instruction in

this study asked respondents to consider himself/herself as a member of his/her important social groups such as a school class or a work unit when answering questions because 1) these groups are more salient in the daily life of general Chinese people and therefore more relevant to their evaluation of quality of life, and 2) previous research findings (Kwan, Bond, & Singelis, 1997) suggested that the race-specific form of CSES might not be good predictor of life satisfaction. The scale developers' (Luhtanen & Crocker, 1992, Study 3) data, as well as those of others (Bettencourt & Dorr, 1997; Ethier & Deaux, 1990), showed that modifications to the reference groups used in the scale for research purposes did not negatively affect the reliability of the scale.

The CSES includes four 4-item subscales. The total scale alpha is .88 (Luhtanen & Crocker, 1992). The Membership Esteem subscale ( $\alpha = .75$ ) assesses individual's judgments of how worthy they are as members of their social groups. A sample question is "I am a worthy member of the group I belong to." The Private CSE subscale ( $\alpha = .71$ ) measures one's personal judgments of how good one's social group is. A sample question is "I often regret that I belong to the group I do." The Public CSE subscale ( $\alpha = .78$ ) assesses one's judgments of how positively other people evaluate one's social groups. A sample question is "Overall, my group is considered good by others." The Importance to Identity subscale ( $\alpha = .86$ ) assesses the importance of one's social group memberships to one's self-concept. A sample question is "Overall, my group memberships have very little to do with how I feel about myself." In the present investigation, the coefficient alphas for Membership Esteem, Private CSE, Public CSE, and Identity Influence subscales were .51, .76, .67, and .48 respectively. A composite collective self-esteem score was computed by averaging the items of the four subscales and the coefficient alpha for this full scale was .83.

## Procedure

The senior high school students and university students were invited to fill in a questionnaire booklet (described as following) in a class setting with the help of class teachers. Immediately before starting the test the teachers were trained in a 30-minute session on how to administrate the questionnaire. They were told briefly (1) the general purpose of the test, (2) the requirement of the test, and (3) the method of collecting

questionnaires from parents and grandparents. There were about 50 students in each class. The time to finish the questionnaire booklet ranged from 28 to 52 minutes. After the test, the senior high school students were given the same questionnaires for one of their parents and one of their grandparents to complete at a convenient time at home, and were asked to return the completed booklets in I week. The teachers were given a gift for their help in organizing the test. The students were also given a gift for their contribution and the contribution of their parents and grandparents.

To encourage truthful responses, participants were told in the first page of the booklet that their names were not requested and that their answers would be kept confidential.

Because only one of the senior high school students' parents and only one of their grandparents were invited to participate in the present investigation, the gender of parent and grandparent participants was decided on a random basis. In case the randomly assigned parent or grandparent was not available for answering the questionnaire booklet the students were asked to invite another parent or grandparent to complete the booklet. If both parents or both grandparents were unavailable, the students were asked to return the unfinished booklets to their class teachers and to gave a brief explanation. The response rate was 84.31% for parents and 45.43% for grandparents. According to the class teachers, the reasons for parents' or grandparents' not responding included (1) they went out of the city for business; (2) they were too busy; (3) the students did not live with their grandparents and could not find time to visit them within the week; (4) they already passed away; and (5) they did not want to respond.

The senior high school students, their parents, and their grandparents represented three Chinese generations. The university students are greatly exposed to modern ideas and values in higher learning institutions. It is believed, therefore, that these four age groups will provide useful information on the overall picture of the relationship between individual and collective self-esteem and life satisfaction.

## RESULTS

### Correlation among variables

The means and standard deviations of life satisfaction and self-esteem are presented in Table 2. The mean scores on a 7-point Likert scale (0-6) were 3.34 for general life



satisfaction and 4.05 for life domain satisfaction, which indicated a moderately positive evaluation. A correlation analysis was also conducted for all variables and the coefficients are also presented in Table 2. It was found that both self-esteem indicators were positively correlated with two satisfaction indicators. The correlation between general life satisfaction and life domain satisfaction was significant but moderate ( $r = .46, p < .01$ ). The correlation between individual self-esteem and collective self-esteem was also moderate ( $r = .45, p < .01$ ). These correlations indicated that these two pairs of concepts were correlated but different. The moderate correlation between the two self-esteems also suggested that there should be no serious multicollinearity problem if they were to be used as two independent variables in the regression analyses.

**Table 2 Means, Standard Deviations, and Correlations of Life Satisfaction and Self-esteem Indicators (N=1347)**

	1	2	3	4
1. General life satisfaction	—	.46**	.32**	.268**
2. Life domain satisfaction		—	.41**	.36**
3. Individual self-esteem			—	.45**
4. Collective self-esteem				—
Mean	3.34	4.05	3.96	3.96
SD	1.15	0.84	0.89	0.91

\*\* $p < .01$ .

## Effects of gender and age

Hierarchical regression analysis was used to test moderating effects of gender and age on the relationship between the two self-esteems and two life satisfactions. The general procedure for testing moderating effects in the present investigation was to enter predictors first, then to enter moderators. The last step was to enter interaction terms between predictors and moderators. A significant interaction term would be taken as an indication of a moderating effect.

To test gender and age effects, individual self-esteem and collective self-esteem were entered at Step 1. Gender and age were entered at Step 2. In the last step, four interaction terms, i.e., individual self-esteem  $\times$  gender, collective self-esteem  $\times$  gender, individual self-