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Changes in Social Comparison Orientation over the Life-span

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ABSTRACT

Background: Social comparison is a basic human process, which may change dependent of one's age. The purpose of this study was to examine how Social Comparison Orientation (SCO), i.e., the tendency to engage in social comparisons, varied across the lifespan.

Method: A representative sample of 1613 adults from the Netherlands filled out the widely used 11-item scale for Social Comparison Orientation (SCO). Age was categorized in terms of decades, including both 19 years or younger and 80 years or older as categories.

Results: The results showed a strong curvilinear effect of age: SCO was highest among people 19 years or younger, decreased substantially with increasing age until the age of 60, after which it increased moderately. Women were somewhat higher in SCO than men.

Conclusion: The tendency to engage in social comparisons changes considerably over the life span, which may be due to the different challenges and insecurities that people may face in different stages of the life span.

Keywords: *Life Span; Social Comparison Orientation; Age Differences; Self*

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Introduction

The tendency to engage in social comparison has been proposed as a basic human characteristic that is rooted in human evolution (e.g., Buunk & Gibbons, 1997; McAndrew & Jeong, 2012). For example, Suls (1986) found that a large majority of individuals of all ages said they used social comparisons to assess how well they were doing on a variety of activities. Nevertheless, it has been noted as well that people are often reluctant to admit that they compare themselves with others (e.g., Brickman & Bulman, 1977; Hemphill & Lehman, 1991; Schoeneman, 1981), even after making statements reflecting some kind of self-other comparison (Wood, Taylor & Lichtman, 1985). People are often unaware of their social comparison activities as these often occur outside of awareness (e.g., Gilbert, Giesler, & Morris, 1995; Massar & Buunk, 2009). Moreover, in general, people tend to characterize themselves more in terms of comparisons with one's own self in the past (i.e., temporal comparisons) than in terms of social comparisons (Wilson & Ross, 2000). This may in part be due to the fact that social comparisons are often seen as unwanted, especially when they are associated with envy, *Schadenfreude*, or feelings of superiority (Buckley, 2014; Van Damme, Hoorens & Sedikides, 2016). Nevertheless, Ben Zur (2016) found that self-enhancing social comparisons functioned more as cognitive coping mechanism than temporal comparisons when psychological resources were low. Nevertheless, when individuals claim that they seldom compare themselves with others, this may mean that they truly do lack an interest in social comparison information. As already noted, decades ago by Diener and Fujita (1997) and Earlier, Hemphill and Lehman (1991), it has become more and more clear there are large individual differences in the tendency to compare oneself with others. From this perspective, Gibbons and Buunk (1999) developed a scale assessing individual differences in what was labelled social comparison orientation (SCO), that is, the inclination to compare one's accomplishments, one's situation, and one's experiences with those of others. Since the scale was published, it has been translated into more than 20 different languages. Although social comparisons may, in some contexts, be perceived as socially undesirable, there are weak or non-significant correlations with scales assessing social desirability (Gibbons & Buunk, 1999). A series of studies have shown evidence for the personality correlates of SCO, including associations with neuroticism, a low self-esteem, and a high chronic activation of the self, but also with the motivation to develop and maintain long-term relationships and to participate in positive social interactions. In addition, numerous studies have shown evidence for the moderating role of SCO with respect to the impact of social comparisons in a variety of domains, including marital satisfaction, professional burnout, risk-taking, and physical attractiveness (Buunk, Dijkstra, Gibbons, & Krizan, 2020).

SCO and Age

In the present research we examined the relation between SCO and age. During the lifespan individuals face several challenges. Every life stage, be it adolescence, young or late adulthood, presents individuals with developmental tasks, with different insecurities and obstacles to overcome (e.g., Erikson & Erikson, 1998; Hutteman et al., 2014; Kroger, 2015). Whereas, for instance, young individuals often struggle with their identity, in late adulthood relatively many individuals face health problems and a loss of loved ones. In general, insecurities and the stress that arises from it, are strong elicitors of social comparisons to regain a sense of confidence, for instance by finding inspiration or hope in what comparable others are doing or by making sense of their situation (e.g., Buunk, 1994; Lee, 2014). Although every age is characterized by age-specific life challenges, we expected SCO to be relatively high among young people. In their development towards autonomy and independence young adolescents tend to compare themselves strongly with, and conform to, their peers (e.g. Gommans, et al., 2017; Steinberg, 2016). In late adolescence, with growing independence, this tendency to conform weakens but emerging adults are also confronted with insecurities about their own current and future standing on various dimensions (Arnett, 2004; Atwood & Scholtz, 2008). In a relatively short period of time, emerging adults have to make important and far-reaching decisions concerning college, work, intimate relationships and children. Social comparisons may then provide useful information about how comparable others are dealing with such decisions, and may facilitate the decision processes individuals are facing. From an evolutionary perspective, social comparisons are particularly relevant for competition over mates: it might be useful for individuals to collect information about one's own standing relative to such competitors on dimensions appreciated by potential mates (e.g., McAndrew & Jeong, 2012; see also Ozimek & Bierhoff, 2016). As young people are more into mating than older people, social comparisons may be relatively more relevant for them. In addition, as individuals age, their position in the status hierarchy will become more and more clear, and it may be less useful to compare one's status with that of similar others (Buunk & Janssen, 1992). Indeed, several studies have suggested that, with age, temporal comparisons become more prevalent (Brown & Middendorf, 1966; Suls, 1986).

Erikson's theory of human development describes a succession of developmental crises in the life-span (Erikson & Erikson, 1998). These crises or developmental tasks will stimulate social comparisons and it is plausible that these remain an important coping mechanism along the entire life-span. However, on the basis of other approaches of life-span development a decrease in social comparison behaviour can be expected after adolescence and emerging adulthood. Various theoretical perspectives converge in their description of the developmental process from adolescence to adulthood in mid-life. Particularly socio-cognitive perspectives (on moral, ego- and personality

development) are supported by ample empirical evidence (Kegan, 1994; Kohlberg, 1969; Loevinger, 1976). In these perspectives, personal development is viewed as a process characterized by a strong orientation on others and social norms in adolescence, via a growing self-awareness and the realization that from many possibilities one has to establish one's own identity, toward a position in which the person functions as an autonomous and responsible adult on the basis of a set of self-chosen values and principles. From this developmental course it can be expected that the autonomous self-responsible adult shows less social comparison behaviour than the conforming adolescent. A recent study by Krettenauer, Murua & Jia (2016) on moral identity across adulthood supports this expectation.

A decrease in social comparison behavior in adulthood can also be expected from the study of changes in personality traits. Between the age of 20- and 45-years people show an increase in conscientiousness, agreeableness and emotional stability (Specht et al., 2014). According to Roberts, Wood and Smith (2005) individuals become more considerate, self-controlled, responsible, and emotionally stable (i.e., less neurotic), i.e., they develop towards maturity. As mature adults they probably are less inclined to compare themselves with others. More directly relevant for the present research, there is also some evidence that age is related to SCO. Callan, Kim, and Matthews (2015) compared an age group of 18-30 years of age with participants older than 60 years, and found that the older group scored significantly lower on SCO. Mulgrew and Cragg (2017) compared males in three age-groups: 18-30 years of age, 31-55 years, and 57-77 years old. They also found that the youngest group showed more social comparison behaviour than the oldest group. The middle-aged group did not differ from the youngest nor the eldest group. In a study by Ozimek and Bierhoff (2016) among internet users in the ages from 16 to 56 years of age, it was found that age correlated negatively with SCO, and that the higher use of Facebook among young people was in part mediated by SCO. However, in contrast to what Suls (1986) found, there may be reasons to assume that in late adulthood, SCO does indeed increase as it may have an adaptive function. After the age of fifty, and especially after the age of sixty, individuals are confronted more and more with the death of people of their own age, and may engage in social comparisons, asking themselves, for example, in what respects their lifestyle is similar to or different from that of others who die, and what consequently the death of others says about their own prospects (e.g. Hutteman et al., 2014). As far as we could ascertain, there is only one study showing that SCO may fulfil an adaptive function among older individuals. Frieswijk, Buunk, Steverink and Slaets (2007) found in a longitudinal study among 124 older persons with varying levels of frailty that well-being was positively associated with SCO among those with higher levels of frailty *and* higher levels of self-management ability. In a similar vein, although not dealing with SCO, Stewart, Chipperfield, Ruthig, and Heckhausen (2013) found in a longitudinal study among people

ages 79 to 97 that downward social comparison was associated with a higher level of subjective well-being only for people with a low level of perceived control. In the same way, downward social comparisons have been found among senior adults to predict physical health outcomes, but again only among those with low primary control perceptions with respect to their health (Bailis, Chipperfield & Perry, 2005).

Method

Participants

The participants constituted a representative sample of 1,613 adults from the Netherlands. The data were collected by Centerdata (previously Telepanel), a foundation in which people participated who answered each weekend on line a number of questionnaires for various companies and institutions. The present sample consisted of 867 (53.7%) men and 746 (46.3%) women. The age distribution was as follows: 13.3% (n = 215) was younger than 20 years of age, 15.5% between 20 and 29 years (n = 250), 22.3% between 30 and 39 years (n = 360), 19.5% between 40 and 49 years (n = 315), 12.1% between 50 and 59 years (n = 195), 16.1% between 60 and 69 years (n = 260), and 1.1% (n = 18) 70 years and older.

With respect to the educational level, the valid percentages were as follows (for 5.9% there were no reliable data): 2.6% only primary school; 37.3% lower level of professional education; 15.7% medium level of professional education; 15.2% secondary education, and 29.2% tertiary education, including high level of professional education as well as university education. For the employment status, the valid percentages were as follows (for 3.7% there were no reliable data): about half was gainfully employed (47.1%), 6.6% was currently unemployed, often searching for a job; 15.2% were students (including high school students); 18.6% was a homemaker; 9.7% was retired; 2.8% was on disability or on welfare payments. The research was approved by the Ethics Committee of Psychology, number 17100-O.

Measure

Social Comparison Orientation (SCO) was measured with the INCOM (Iowa-Netherlands Comparison Orientation Measure; Gibbons & Buunk, 1999). This measure was the result of an extensive development process, and has been used in many studies (see Buunk & Gibbons, 2006; Buunk et al., 2020). The scale consists of 11 items. Sample items include “I often compare myself with others with respect to what I have accomplished in life,” “If I want to learn more about something, I try to find out what others think about it,” “I always like to know what others in a similar situation would do”, “I always pay a lot of attention to how I do things compare with how others do things”, and “I am not the type of person who compares often with others” (reverse-scored). Questions are answered on a 5-

point scale ranging from 1 (*do not agree at all*) to 5 (*agree very much*). The alpha in the present sample was .83, which is slightly higher than in previous assessments.

Results

We examined the effect of age categorized in terms of decades (including both 19 or younger and 80 or older as categories) as described in the Method. Given the fact that Gibbons and Buunk (1999) did find a small effect of gender, we also included gender as a factor in our analyses. A GLM with gender and age as factors showed a small main effect of gender, $F(1, 1613) = 4.46, p = .035, \eta^2 = .003$, a substantial main effect of age, $F(6, 1613) = 16.74, p = .000, \eta^2 = .059$, and no interaction between age and gender, $F(6, 1613) = .87, p = .520, \eta^2 = .003$. As shown in Figure 1, social comparison orientation was the highest among young people, decreased over the life span, and increased again after the age of sixty. In addition, women (unadjusted mean $M = 33.34, SD = 7.99$) were slightly higher in SCO than men (unadjusted mean $M = 32.15, SD = 7.67$). Because younger people will on average be more highly educated than older people, we did the same analysis controlling for educational level. The effects remained the same, with no effect of educational level, $F(6, 1613) = .93, p = .335$.

To examine if the curvilinear effect suggested in Figure 1 was indeed significant, we did a curve estimation analysis regressing SCO on age.

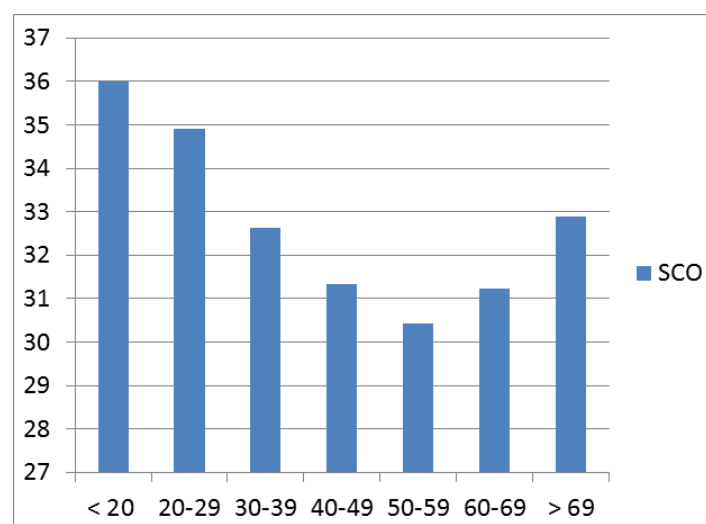


Figure 1. Social Comparison Orientation (SCO) and Age

This analysis showed that a linear effect could explain the effect of age, $F(1, 1611) = 73.18, p = .000, R^2 = .04$, but that a curvilinear effect could explain the effect even better, i.e., explained more variance, $F(2, 1610) = 47.06, p = .000, R^2 = .06$.

Discussion and Conclusion

As expected, in addition to a linear effect, a clear curvilinear effect was found, that is, with age, SCO decreased until about the age of sixty, after which levels of SCO increased, although not to the level obtained by individuals in their teens and twenties. There is support from developmental studies for a decrease in SCO from adolescence to mid adulthood. Support for an increase thereafter is scarce. In a study on self-concept differentiation (SCD), reflecting a fragmented or divided sense of self, Diehl, Hastings and Stanton (2001) also found a curvilinear, U-shaped association with age: a decrease until the age of sixty and an increase for the older subjects in their sample: “A high level of SCD was associated with lower positive and higher negative psychological well-being for both young and older adults” (p.643). Since SCO is also associated with, among others, neuroticism and life stress (Gibbons & Buunk, 1999), we view the findings by Diehl et al. as in support of the SCO results for the older research participants in our study. Further indirect support can be found in Heckhausen’s motivational theory of life-span development (Heckhausen & Worsch, 2010). A central process in this theory is primary control, the capacity to bring one’s environment, one’s situation in line with one’s wishes. Primary control capacity shows an inverse U-shaped association with age, with middle aged adults showing highest control capacity and therefore, as one may, assume the lowest SCO.

The present study showed that, overall, women reported a somewhat higher SCO than men. There are several possible explanations for this finding. First, in general, women are more sensitive to stress, in other words they are somewhat more neurotic (see also Shchebetenko, 2017), and, as a consequence, may feel a higher need to compare themselves with others. Second, it is possible that women feel a higher need to engage in social comparisons because they, due to persistent gender inequalities, are confronted with more life stressors than men (e.g., Eek & Axmon, 2015).

In general, the relation between SCO and age found in the present research is consistent with findings on the broader concept of personality that show that personality characteristics and dispositional tendencies, such as SCO, are not static in nature and may develop throughout the life span. More specifically, according to Specht (2017) major life events, such as marriage, child birth, and chronic illness, and the different roles that accompany these events, impact how individuals think, feel, and behave, thus, their personality (see also Caspi, 1987). Since many major life events are age-dependent or, at least, more likely to take place in certain periods of life, changes in personality may be expected with age. For example, longitudinal research has shown that men who faced the loss of their spouse – an event that usually takes place in midlife or old age – became less conscientious, whereas women facing the same event became more conscientious (Bleidorn, Hopwood, & Lucas, 2016; Specht et al., 2011).

Strengths and limitations

The present research investigated the relation between SCO and age in a large sample of Dutch participants of varying ages, showing a substantial decrease until the age of sixty, and a modest increase after that age. Our findings suggest that SCO and age are related in a predictable way that may be explained by the challenges individuals are confronted with in different stages of their life. However, there are some limitations of the present research. First, it must be noted that the present study was cross-sectional, not longitudinal, in nature. As a consequence, caution is warranted in interpreting the present results in terms of the development of SCO during the lifespan as, in theory, the results may also be explained by cohort effects. Second, it must also be noted that personality changes due to changing roles are quite complex in nature, with different personality characteristics being impacted differently by different life events. Research is only now shedding some light on this issue (for a review see Bleidorn, Hopwood, & Lucas, 2016). Future longitudinal studies may more specifically examine what and how major life events and changing roles exactly impact SCO and further improve our knowledge on the exact role of these factors in the development of SCO with age. Third, the study was done in a Western culture and may not necessarily generalize to other cultures. Although a study published in Spanish showed in Chile a similar effect of age on SCO as found the present study (Urzúa, Zuñiga & Buunk, 2012), little is known about cultural differences in SCO. However, one study showed that, while the motives for social comparison differed between the United States and South Korea, there was no difference between both countries in the level of SCO (Song, Cramer & Park, 2017; see also Church et al., 2014). Nevertheless, because there is evidence that the search for social comparison related emotions through Google is associated with cultural differences in collectivism and in the tightness of social norms (Baldwin & Mussweiler, 2018), it is important that future studies examine the effect of age on SCO in different cultures. Finally, as the present research – as virtually all research on social comparison – was based on self-reports, in future research other methods may be employed to examine age differences in social comparison tendencies, in particular neural brain activity (see for example Luo, Eickhoff, Héту, & Feng, 2018; Kodama et al., 2018; and Wang, Liu, She & Gao, 2019; for evidence for the neural correlates of social comparison). Despite these limitations, the present study at least suggests that the tendency to engage in social comparisons may vary to an important extent as a function of age, and provides a number of suggestions for future research on this issue.

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Declarations of interest: None

Authors' contributions

A.P. Buunk was one of the developers of the original scale, designed the study, supervised the collection of the data, analysed the data, and wrote many parts of the manuscript. H.A. Bosma wrote substantial parts of the Introduction and Discussion section, and advised in analysing the data. P.D. Dijkstra assisted in literature research, and in editing and rewriting the whole manuscript. All authors contributed to and have approved the final manuscript.

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