

Being Well as Time Goes By: Future Time Perspective and Well-Being

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ABSTRACT

The authors analyze data from the European Social Survey (ESS3, 2006) with the framework of Socioemotional Selectivity Theory (SST, Carstensen, Fung & Charles, 2003). In order to explore the extent to which future time perspective (FTP) is related to social goals, they test SST in a representative sample of adults from 23 countries (43000 individual responses). The study also analyses the benefits for SWB (subjective well-being) and mental health of implementing motivationally consistent social goals. The associations of FTP with age and health, as well as with expressed social goals replicate results from SST obtained in previous studies. Although SWB is higher and depression is lower when FTP is open-ended, it only increases with congruence between motivation and objectives for persons with open-ended FTP. For those with limited FTP, congruency is associated with lower SWB levels and higher depression. These results challenge the importance for well-being of congruency between FTP and social goals and stress the importance of social acceptance and autonomy for all the profiles of FTP, but especially for persons with limited future time perspective.

Key words: Socio-emotional Selectivity Theory, Future Time Perspective, aging, well-being, European Social Survey.

RESUMEN

Los autores analizan los datos de la Encuesta Social Europea desde la teoría de la selectividad socioemocional (SST), a fin de explorar el grado en que la perspectiva de futuro (FTP) está relacionada con los objetivos sociales, en una muestra representativa de adultos de 23 países (43.000 respuestas individuales). También se analizan los beneficios para el bienestar subjetivo y la salud mental de la existencia de objetivos sociales consistentes con el patrón motivacional. Las asociaciones de FTP con la edad y la salud, así como con las metas sociales expresadas, replican los resultados obtenidos en estudios previos. Aunque el bienestar es mayor y la depresión es menor cuando la FTP es abierta, la salud mental sólo aumenta con la congruencia entre la motivación y los objetivos para las personas con perspectiva abierta FTP. Para aquellos con limitada FTP, la congruencia se asocia con menores niveles de bienestar subjetivo y mayores de depresión. Estos resultados ponen en duda la importancia para el bienestar de la congruencia entre FTP y los objetivos sociales, y destacan la importancia de la aceptación social y la autonomía en todos los perfiles de FTP, pero especialmente para las personas con perspectivas limitadas de futuro.

Palabras clave: teoría de la selectividad sociemocional, perspectiva de futuro, envejecimiento, bienestar, Encuesta Social Europea.

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Future time perspective (FTP), in other words an individual's perception of his or her remaining time to live has been a focus of growing interest in psychology over the past decade, essentially in the fields of aging and health.

Yet FTP is a construct with a long history. Its definition as an important psychological variable can be traced back to Lewin (1939) who claimed that a person's life-space includes not only a geographical and a social environment, but also a temporal dimension. Lewin defined time perspective as "The totality of the individual's views of his psychological future and his psychological past existing at a given time..." (Lewin, 1951, p.75) and he stated that it influences our actual behaviour ("Persons of all ages are influenced by the manner in which they see the future, that is by their expectations, fears and hopes...", Lewin, 1939, p.878) and asserted that change within FTP is one of the most fundamental facts of development. Later on Nuttin (1964; Nuttin & Lens, 1985) emphasized the motivational aspect of FTP by stressing its crucial role within the process of behavioural construction i.e. intent and motivation. Such a view has been adopted by contemporary scholars: temporal perspective is from now on considered as a fundamental part of intentional human behaviours and, more broadly, of human motivation. Indeed, awareness of the time left ahead of us plays a motivational role since we set our goals within a time context.

Despite its recognition as an important construct, FTP had not been integrated into a theoretical framework of adult development until lately when socio-emotional selectivity theory (Carstensen, 1993; Carstensen, Isaacowitz, & Charles, 1999) made it her main premise. Since then, numerous empirical data have been collected. Socio-emotional selectivity theory (SST) fits in the so-called "life-span" perspective on development and aging, more precisely in Baltes' theory of Successful Aging, which has flourished in the late 80's in concert with the emergence of positive psychology (e.g., Baltes & Staudinger, 2000). Baltes has ascertained, through the Selective Optimization with Compensation (SOC) Model (e.g., Baltes & Baltes, 1990), the fact that adaptation to aging requires, in all areas of human behaviour, three strategies: namely Selection, Optimization and Compensation. Socio-emotional selectivity theory (Carstensen, Fung, & Charles, 2003) advances and extends Baltes's work: it is a theory of social motivation based on those adaptive processes throughout the entire life-span. Through the selection of social and psychological goals, individuals play a proactive role in managing the quality of their life, i.e., their well-being.

Indeed one central assertion of SST is that social goals are important for self-regulation, social relationships and emotional experiences. Accordingly two broad functional categories of social goals are intrinsic to psychological motivation: expansive goals such as searching for and acquiring knowledge as well as new experiences, and goals that focus on attaining emotional well-being. As Carstensen and her colleagues argue, categorizing a number of social motivations as "related to knowledge" and others as "linked to emotions" is somehow artificial since the emotional system is inherent to any intentional behaviour. Yet this distinction is an heuristic one: it is intended at distinguishing between objectives that represent an investment into the future and will be beneficial later on, from those that focus on emotional well-being and on the subsequent short termed, if not immediate benefits.

FTP is conceptualized by socio-emotional selectivity theory as an unidirectional construct assessed on a bipolar continuum ranging from a “limited” future (the perception that the time left to live is short) to an “open-ended” future (the perception that there is a whole life ahead of us). People shift from an open-ended time horizon in their youth to a limited one when they age. An impressive body of works gives evidence to SST premises: when young people become mature adults, i.e. when they become aware of the time remaining to live, preferences in terms of social interactions shift from an interest for partners able to meet their search for information (such as the acquisition of knowledge about the physical and social world) to an interest for partners able to respond to emotional goals (Fung, Carstensen, & Lutz, 1999). The authors have shown that a partner’s emotional potential (the potential of a social partner to respond to emotional goals) is of great importance for the elderly in selecting their relations while, in contrast, this emotional potential is unimportant for young adults. Familiar social ties best meet these emotional goals (Carstensen, Pasupathi, Mayr, & Nesselrode, 2000).

Very early scholars of SST have thought that age *per se* was not necessarily accountable for these differing objectives preferences. They assumed that “anticipated social limitations” including the prospect of death to anyone who has a serious illness, were the key of the shift in social objectives. These “anticipated endings” have been included into the theory, future time perspective being now defined as the perception of time left to live, whether for elderly or patients of all ages (Fredrickson & Carstensen, 1990).

Yet research on FTP correlation with age is the most numerous one and continues to flourish. Fraisse (1963, 1967, 1983) who was a pioneer in this field when he studied the “time horizon” as he named it, had already noticed that the distinction between age groups had been the most often taken into account variable in the literature on FTP, regularly between adolescents and elderly (Lens & Gailly, 1980), sometimes between the age of 3 and centenarians (Cameron, Desai, Bahador, & Dremel, 1977-1978). This early work on age differences in FTP had objectified a common sense idea that FTP shortens with aging.

Among the most recent studies on FTP correlations with age that have been completed by scholars of SST, three studies are worth being mentioned. They all show a negative correlation and consider the FTP extent as a predictor of behaviours vis-à-vis the social network.

The first study (Lang, 2000) is based on a longitudinal sample of German adults (70-104 years) from the Berlin Aging Study. The author explored at a 4-year interval, the links between individual differences on FTP (operationalized by a single item *I feel that my time is coming to an end*) and changes in the attitude toward social network. The correlation between FTP and age, even with such a narrow age sample was $-.32$. This study, intended at analyzing the impact of FTP extent at T1 on changes in the social network between T1 and T2, does not specify changes in the FTP longitudinal scores. A second study has tested the validity of SST assumptions in other cultures (Fung, Carstensen & Lang, 2001). The authors used the 10 items questionnaire aimed at measuring FTP extent (Carstensen & Lang, 1996). They found differences between young adults (18-30 years) and older adults (60-90 years) on the FTP as well as in their social preferences in both Taiwan and China.

The third study (Lang & Carstensen, 2002) is the basis for our research. It was aimed at discerning the ways in which an individual's goals or motivations are actually reflected and regulated in relationships with others, and whether congruence between goals and social relationships contributed to improved social functioning. The data were collected from a German sample of 480 individuals belonging to 3 age groups (20-40, 45-65 and 70-90). It appears that this sample had the peculiarity of being in a better subjective health than the general population. This study was the first to explore on a broad heterogeneous sample, both a whole range of social objectives and behaviours within the social network. By construction the authors differentiated two sub-types of social goals both when the future is perceived as limited and when it is perceived as open-ended. The former, specifically related at obtaining short-term benefits include emotional regulation and generativity. *Emotional regulation* (Carstensen *et al.*, 2003) refers to a better self-regulation of emotions in everyday life. When concerns about future are less prevalent, attention to immediate emotional states increases resulting in a better control of emotions and in pursuing emotionally meaningful goals. Correlatively the long-standing relationships with family and friends take an unprecedented importance when taking into account the fragility and value of life. *Generativity* is a concept inspired by Erikson's work (1950) on the different stages of life. Vaillant (1993), who prefers to call them tasks, basically sees two tasks in old age: "generativity" and becoming the "keeper of meaning". He claims that well-integrated people shift from personal and familial immediate concerns, current in middle adulthood, to a more distant interest for community in old age (Vaillant & Milofsky, 1980, p.1349). This maturation is reflected in the desire to take responsibility for future generations and to transmit knowledge and a sense of values to those that follow. It is therefore a concern and a responsibility towards the welfare of future generations in general and one's own offspring in particular. The goals attached to generativity are more important in late adulthood (McAdams, Hart, & Maruna, 1998). On the other hand expansive, long-term goals, focused on optimizing the future, include social acceptance and autonomy. In Lang and Carstensen's study (2002) social acceptance is measured on the basis of the following items: *I have good friends who accept me as I am; I have close friends who trust me; I'm able to confide in a close friend at any time; I get good advice on important decisions; and Not feel lonely.* *Autonomy* is based on the following items: *Decide by myself my own future; Receive approval for my work; Have a real capacity for discernment; Financially independent; Have a good education and have acquired the knowledge.* The authors found a strong negative correlation ($r = -.70$) between FTP and belonging to an age cohort. Those who perceived their future as limited gave priority to emotionally meaningful goals and the opposite was true.

In that same study the authors not only focused on the selection of objectives, but also on positive effects that such a selection could have in terms of adaptation. To this end, they analyzed the adequacy, or congruence, between FTP (limited or open) and the preferred objectives. Therefore they focused, following Brunstein, Schultheiss & Grassmann (1998), on the ways motivation and personal goals both affect subjective well-being. As these latter authors did, Lang and Carstensen (2002) assumed that the matching of motivation and social objectives provides well-being. In effect, through a

differentiation between goals that are either motivationally 'congruent' or 'non-congruent', Brunstein *et al.* (1998) had shown that subjective well-being is very sensitive to the pursuit of congruent goals, but is not affected by the pursuit of non-congruent ones. Combining this premise into SST, Lang and Carstensen (2002) have demonstrated that congruence between a limited FTP and a pursuit of *emotionally meaningful* goals led to greater satisfaction with social relations. Likewise giving priority to instrumental goals when future time perspective is opened brings social satisfaction. On the other hand the pursuit of goals that fall outside the FTP extent leads to dissatisfaction in social relations.

As the two above-mentioned researches, this study confirms the SST predictions: older adults see their time as more limited than that of young and give priority to different objectives. Yet, they are correlational and do not include non-linear change. They tell nothing about intermediary age groups. Indeed the authors have focused on correlations between individual differences in FTP, social goals, and behaviour in social network; they did not report the average FTP levels for each age group.

Our study analyzes the European Social Survey (ESS3, 2006) data with the framework of SST and in reference to prior empirical works. Nevertheless there is no empirical study which analyzed the validity of SST on the basis of a representative sample of adults whose ages range from youth to old age. Our main objective is therefore to test Carstensen's model on a wide scale. The second aim of our study refers to the benefits for subjective well-being at opting for motivationally consistent goals. Finally our study examines the possible variations in results between European countries whose economic development is not equivalent.

METHOD

Participants

Data from 23 European countries provided by the ESS on July 2006 (collected in November 2004) was used in this study. It included 43000 individual responses to the questionnaire, from representative samples of the various countries (see Table 1 for the description of the dimensions of the samples). In the analysis involving comparisons between countries the data used in this study was always weighted, so that the mean value of each sample is representative of the country and the total is not affected by the dimension of the sample but by the dimension of the population of each country.

In order to analyse the impact of the level of development of each country, we obtained its classification in the *Human Development Index* in the year the data was collected (PNUD 2006). This information was used to create three groups of countries according to their level of development: The group of more-developed countries (Netherlands, Norway, Sweden, Belgium, Switzerland, Denmark, Finland and Ireland), the group of less-developed countries (Cyprus, Poland, Hungary, Estonia, Slovakia, Bulgaria, Russia, Ukraina) and the group of intermediate countries (UK, France, Austria, Germany, Spain, Portugal and Slovenia).

Table 1. Distribution of the Age Categories in the Different 23 National Samples.

Country	Sample	- 30	31-45	46-60	61-75	+75
Austria	2405	31,5	26,2	27,2	11,3	3,8
Belgium	1798	24,4	26,3	25,2	17,5	6,7
Bulgaria	1400	20,2	20,2	30,2	22,0	5,5
Cyprus	995	26,0	23,1	31,9	14,4	4,6
Denmark	1505	15,4	27,3	27,3	21,8	8,2
Estonia	1517	24,8	23,0	23,2	20,9	8,0
Finland	1896	22,6	22,5	25,7	20,5	8,7
France	1986	21,7	29,5	28,8	14,9	5,1
Germany	2916	19,4	26,5	25,7	19,7	8,7
Hungary	1518	21,2	23,0	28,2	19,6	8,0
Ireland	1800	25,4	26,9	24,2	13,7	9,8
Netherlands	1889	18,8	29,6	28,0	17,5	6,1
Norway	1750	23,9	28,0	26,4	15,0	6,7
Poland	1721	30,8	22,4	26,8	14,5	5,4
Portugal	2222	21,4	23,6	25,0	21,1	9,0
Russia	2437	29,6	24,1	25,5	14,7	6,1
Slovakia	1766	28,7	27,1	23,9	12,8	7,6
Slovenia	1476	25,2	22,1	26,5	18,9	7,3
Spain	1876	25,6	28,0	21,3	16,2	8,8
Sweden	1927	22,9	25,6	25,6	18,2	7,7
Switzerland	1804	19,3	27,7	26,9	18,7	7,4
U.Kingdom	2394	22,9	26,1	24,4	18,7	7,9
Ukraine	2002	1,8	21,6	28,2	21,0	7,4
TOTAL	43000	23,7%	25,5%	26,2%	17,5%	7,2%

Indicators

Future Time Perspective. It was operationalized with the basic indicators proposed by Cars-
tensen and Lang (1996), (D52, 'Do you generally plan for future or do you just take
each day as it comes?') including a more emotional component (E28, 'I like planning
and preparing for the future'). Question D52 was answered using an 11-point scale
(from 0 to 10). Question E28, was answered using a 5-point scale (from 1 to 5) and
the final indicator was computed averaging the two questions after their transformation
to zscores. The internal consistency of this indicator is adequate for the total number
of answers ($\alpha = 0.630$; $r(42182) = 0.459$; $p < .001$) and the existing variance between
countries, although high, never renders its usage unfeasible: the values are acceptable
in less developed countries ($\alpha = 0.647$; $r(11193) = 0.478$), as well as in high developed
countries ($\alpha = 0.639$; $r(14397) = 0.469$) and in those that stand in the middle levels of
development in Europe ($\alpha = 0.603$; $r(15113) = 0.431$).

Social goals. In order to follow Lang and Carstensen's (2002) work, four indicators of
social goals were constructed: social acceptance, autonomy, emotional regulation
and generativity. Social acceptance was operationalized with 5 questions: C2, 'How
often do you meet socially, by choice, with friends, relatives or work colleagues?'
(7-point scale, 1= *never* and 7= *everyday*); C3, 'Do you have anyone with whom you
can discuss intimate and personal matters?' (yes / no for the existence/absence of a
confident); E12, 'How often have you felt lonely in the past last week?' (4 point-
scale, 1= *none of the time* and 4= *all or almost all the time*); E43, 'There are people
in my life who really care about me' (5 point-scale, 1= *I agree strongly* and 5= *I
disagree strongly*); F91 'Important to be loyal to friends and devote to people close'

(6 point-scale, 1= *very much like me* and 6= *not at all like me*). The final indicator was computed averaging the 5 z scores of the questions. The internal consistency of this indicator is adequate for the total number of answers ($\alpha = 0.476$). Autonomy was operationalized with 3 questions: E23, 'Free to decide how to live my life'; E26, 'Love learning new things' (two are 5 point-scales, 1= *I agree strongly* and 5= *I disagree strongly*); F74, 'Important to think new ideas and be creative' (6 point-scale, 1= *very much like me* and 6= *not at all like me*). The final indicator was computed averaging the z scores of the 3 questions. Although the internal consistency of this indicator is a bit low ($\alpha = 0.462$), as cronbach alpha is quite sensitive to the number of items, it is acceptable if we consider that the index is composed with only three items. Emotional regulation was operationalized with question F82, 'Important to be humble and modest, not to draw attention' (6 point-scale, 1= *very much like me* and 6= *not at all like me*). Generativity construct was operationalized with question E33, 'How much of the time spent with your immediate family is enjoyable?' (7 point-scale, 0= *none of the time* and 6= *all the time*).

Health status. Perceived health status was operationalized with 3 questions: C15, 'How is your health in general?' (5 point-scale, 1= *very good* and 5= *very bad*), E18, 'How much of the time during the past week you had a lot of energy?' and E16, 'How much of the time during the past week you felt tired?' (Both being 4 point-scales (1= *none of the time* and 4= *all or almost all the time*). The final indicator was computed averaging the z scores of the 3 questions. The internal consistency of this indicator is adequate for the small number of items ($\alpha = 0.590$). Besides, from the questionnaire it was also possible to define a group of participants that could be more objectively described as ill (F8 -Activities in the last 7 days- described as "ill or disabled" and F9 -Main activity during last year- described as "permanently sick or disabled").

Subjective well-being (SWB). As in a prior work (Lima & Novo, 2006), it was operationalized with the basic indicators proposed by Diener (2000), including a more emotional component referring to happiness (C1, 'How happy are you?') and another more cognitive component referring to life satisfaction (B24, 'All things considered, how satisfied are you with your life as a whole nowadays?'). Both questions were answered using 11-point scales (from 0 to 10) and the final indicator was computed averaging the two questions. The internal consistency of this indicator is adequate for the total number of answers ($\alpha = 0.824$; $r(42436) = 0.701$).

Depression. Mental health status/depression has been operationalized with 4 questions: E8, 'How often in past week did you feel depressed?'; E9, 'How often in past week did you feel that everything you did was an effort?'; E14, 'How often in past week did you feel sad?' and E15, 'How often in past week you could not get going'. The four questions were asked on 4 point-scales (1= *none of the time* and 4= *all or almost all the time*). The final indicator was computed averaging the 4 questions. The internal consistency of this indicator is good ($\alpha = 0.784$).

RESULTS

As expected, FTP index was negatively and significantly related to age ($r(41903) = -.218$; $p < .001$): Older people perceive their future as more limited than younger respondents. Not surprisingly, perceived health is also positively related with FTP ($r(42178) = .211$; $p < .001$): participants who consider themselves as healthier have a more

open view of the future. As predicted there is significant differences in the future time perspectives between ill and healthy respondents ($F(1,42181)= 327.28$; $p <.001$; $Eta= .008$), and that is maintained even controlling for age ($F(1,41902)= 233.86$; $p <.001$; $Eta= .006$): among those who are disabled or permanently ill ($N= 1332$) the average FTP is lower ($M= -.364$, $SE=.023$) than in the group without such objective infirmities ($M= -.006$, $SE= .004$; $N= 40571$). These analyses maintain the same pattern when they are performed with young participants ($F(1, 9374)= 9.75$; $p <.002$; $Eta= .001$). In fact, among those younger than 31 years old the future time perspective is lower for those who are disabled or permanently ill ($N= 69$; $MFTP= -.198$; $SE= .100$) than for those who do not present those illnesses ($N= 9306$; $MFTP= .115$; $SE= .009$). These results replicate the pattern of results found by Fredrickson & Carstensen (1990), and allows us to validate our indicator of future time perspective.

The associations of FTP and social goals expressed in our sample also replicate precious results from SST. In fact, it is positively associated with social acceptance ($r(42182)= .163$; $p <.001$) and autonomy ($r(42173)= .298$; $p <.001$) and negatively related with emotional regulation ($r(40765)= -.066$; $p <.001$) and also with generativity ($r(41752)= -.053$; $p <.001$). These results are maintained even when these associations are controlled for age and education (number of years of full time education completed) ($rp_{social\ acceptance}(39738)= .108$; $p <.001$; $rp_{autonomy}(39738)= .234$; $p <.001$; $rp_{emotional\ regulation}(39738)= -.011$; $p <.02$; $rp_{generativity}(39738)= -.026$; $p <.001$).

The next step of our analysis was to try to replicate the association between future time perspective and the priority of life goals found by Lang & Carstensen (2002). For this analysis, FTP was split into three groups which are significantly different in their view about the future ($F(2, 42181)= 95273.152$; $p <.001$; $Eta= .819$): limited time perspective ($N= 13361$, $MFTP= -1.033$; $SD= .478$), undefined time perspective ($N= 12698$; $MFTP= -.033$; $SD= .201$) and a open-ended time perspective ($N= 16123$; $MFTP= .838$; $SD= .361$). The results of the ANOVAs on each of the goals show that FTP clearly differentiates the priority of life goals. In fact (Figure 1) social acceptance ($F(2, 42181)= 418.39$; $p <.001$; $Eta= .019$) and autonomy ($F(2, 42172)= 1395.96$; $p <.001$; $Eta= .062$) are higher in the open-ended time perspective while emotional regulation ($F(2, 40764)= 79.79$; $p <.001$; $Eta= .004$) and generativity ($F(2, 41751)= 52.836$; $p <.001$; $Eta= .003$) are higher in the limited time perspective group. These results are very similar to those presented by Lang and Carstensen (2002) with a much more limited sample.

Besides, we tested the strength of association between the FTP and the social goals in countries with different levels of development, as previous studies have used only a German sample. As Table 2 shows, the pattern of results is not exclusive of the more developed countries and it is even clearer in the less developed ones, where the associations between social goals and future time perspective are stronger.

The goal of this study, however, was to show that the fit between future time perspective and social goals has consequences in terms of subjective well-being and mental health. In order to do that, the profile of social goals was defined for each subject, computing the difference between the social scores of social acceptance plus autonomy from emotional regulation plus generativity. Positive values on this goal index indicate the prevalence of social acceptance and autonomy, while negative values indicate a pattern

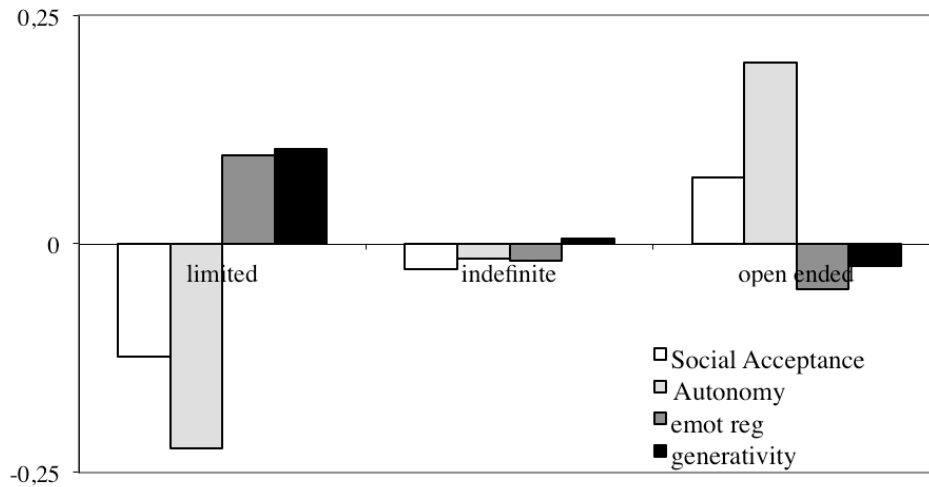


Figure 1. Social goals and future time perspective.

Table 2. Correlations between social goals and future time perspective by level of development of the country.

	Social Acceptance	Autonomy	Emotional Regulation	Generativity
All countries (N=40376)	,163	,298	-,066	-,053
Less developed countries (N=10684)	,237	,419	-,103	-,053
Medium developed countries (N=14855)	,161	,277	-,056	-,055
More developed countries (N=13386)	,155	,239	-,059	-,048

Note: All correlation values are significantly different from 0 for $p < .001$; The N values indicated are the ones obtained in listwise analyses.

where emotional regulation and generativity are more important. Based on the values of the goals index, it was possible to organize the respondents into two categories: a congruent profile (open-ended FTP and positive values in the goals index or limited FTP and negative values in the goals index) and an incongruent profile (open-ended FTP and negative values in the goals index; limited FTP and positive values in the goals index).

Table 3 shows the means obtained in the two 2 (FTP: open vs limited) x 2 (goals profile: congruent vs incongruent) ANOVAs performed, with Depression and Subjective Well being as the dependent variables and age and years of education as the co-variables. Results show the classic effects of age and education on depression ($F_{age}(1, 27595) = 21.96$; $p < .001$; $Eta = .001$; $F_{education}(1, 27595) = 416.14$; $p < .001$; $Eta = .015$) and well being ($F_{age}(1, 27603) = 13.063$; $p < .001$; $Eta = .000$; $F_{education}(1, 27603) = 295.72$; $p < .001$; $Eta = .011$). Besides, the type of future time perspective is related to depression ($F(1, 27595) = 282.84$; $p < .001$; $Eta = .010$) and also to subjective well being ($F(1, 27603) = 45.75$; $p < .001$; $Eta = .002$): even controlling for age and education, respondents with an open-ended view of the future are less depressed ($M = 1.58$; $SE = .0054$) and have higher

Table 3. Quality of life and congruency between future time perspective and social goals.

	Congruent		Incongruent	
	Open FTP (N=9354)	Limited FTP (N=7459)	Open FTP (N=6056)	Limited FTP (N=5167)
Subjective well being	7.49 (1.75)	6.26 (2.37)	6.74 (1.99)	7.44 (1.83)
Depression	1.47 (.465)	1.88 (.71)	1.65 (.56)	1.54 (.52)

well being ($M= 7.07$; $SE= .02$) than those with a limited time perspective (Depression: $M= 1.69$; $SE= .005$; Well-being: $M= 6.90$; $SE=.018$). The congruency of goals with FTP profile is also linked to these variables of the quality of life ($F_{depression}(1, 27595)= 111.25$; $p <.001$; $Eta=.004$; $F_{well-being} (1, 27603)=60.49$; $p <.001$; $Eta= .002$), but in an unexpected way. In fact the respondents with a congruent profile have higher levels of depression ($M= 1.65$; $SD= .62$) and also lower levels of well being ($M= 6.95$; $SD= 2.14$) as compared with those with an incongruent profile (depression $M= 1.60$; $SD= .54$; Well being $M= 7.06$; $SD= 1.95$). Moreover, the strongest effect in these ANOVAS was due to the interaction between congruency and future time perspective, both for Depression ($F(1, 27595)= 1024.95$; $p <.001$; $Eta= .036$) and well being ($F(1, 27603)= 1078.02$; $p <.001$; $Eta= .038$). In fact, while congruency has the predicted effect for respondents with an open-ended perspective (they present higher levels of well-being and lower levels of depression than the respondents with an incongruent profile) it has the reverse effect on those with a limited time perspective: congruent respondents present lower levels of well-being and higher levels of depression than respondents with an incongruent profile. These effects are prevalent as we could find the same pattern of results in countries with very different development levels (Figure 2 shows the interaction effect for subjective well-being in the three types of countries considered). In fact, the goal index (the more the goals are social acceptance and autonomy as compared to generativity and emotional regulation) is positively correlated with well-being ($r(40913)= .283$; $p <.001$) and negatively with depression ($r(40874)= -.298$; $p <.001$), and these associations stand even controlling for age and education (Well-being: $rp(40175)= .241$; $p <.001$; Depression: $rp(40175)= -.249$; $p <.001$). In fact, the significant effects of the interaction effect of social goals index and future time perspective (used as continuous

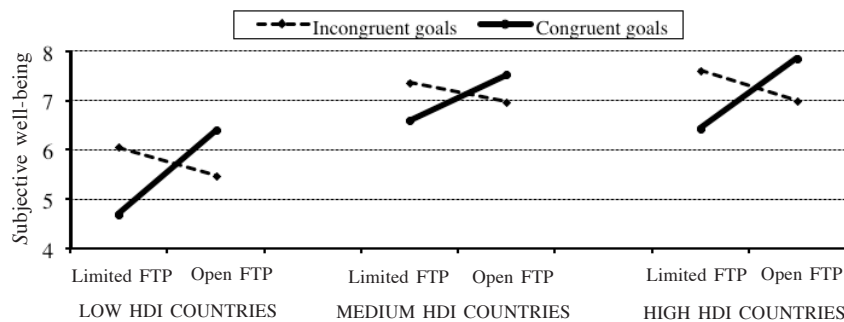


Figure 2. Impacts of congruency between social goals and future time perspective on subjective well-being.

variable in the regression analyses) show both SWB ($\beta = -.029$; $t = -5.864$; $p < .001$; $RsqChange = .001$; $F(1, 39712) = 34.39$; $p < .001$) and depression ($\beta = .052$; $t = 10.708$; $p < .001$; $RsqChange = .003$; $F(1, 39685) = 114.67$; $p < .001$) are differently associated with social goals depending on future time perspectives: the social goals index is more strongly associated with SWB and depression among those with limited FTP ($r_{p_{SWB}}(12493) = .288$; $p < .001$; $r_{p_{depression}}(12493) = -.280$; $p < .001$) than among those with open-ended FTP ($r_{p_{SWB}}(15260) = .190$; $p < .001$; $r_{p_{depression}}(15260) = -.185$; $p < .001$). These results challenge the importance for well-being of congruency between FTP and social goals and stress the importance of social acceptance and autonomy as social goals for all the profiles of FTP, but specially (and contrarily to the SST statements) for persons with limited future time perspective.

DISCUSSION

Lang and Carstensen (2002) have shown on a sample of German adults that age was strongly correlated with the FTP ($r = -.70$). The data from ESS3, a survey which had not been designed to test the FTP validity, do not show such a strong correlation ($r = -.22$). However, age is definitely the best predictor of FTP in countries with equivalent level of development to Germany. We were then able to reproduce Carstensen's model on a representative sample of the wealthiest European countries. Elsewhere, in countries with intermediate and low level of development, illness is the best predictor of FTP. Indeed while in those countries ills are numerous and are found in all age groups, they are only few who are mostly particular to the elderly in wealthy countries. In addition, the general weaker correlation we found between FTP and age may be due to the fact that the German sample used by Lang and Carstensen had a better subjective health than the general population; this has undoubtedly increased the effect of age factor.

In their research, the authors have shown the positive effects of congruence between FTP and objectives in terms of adaptation, especially for people with a 'limited' FTP: a greater satisfaction with social relationships and a lower feeling of constraint in social interactions.

Contrary to Lang and Carstensen, we lacked an indicator of satisfaction with various social partners and had to rely on Burnstein *et al.* (1998) who asserted that well-being is higher when motivation is congruent with personal goals. However, our results do not match those of Carstensen. Although SWB is on average better when future time perspective is open-ended than when it is limited, it only increases when there is congruence between motivation and objectives for persons with open-ended FTP. For those with limited FTP, congruency is associated with lower SWB levels and higher depression.

Several arguments could explain why among people with a limited FTP, those who engage in close relationships report higher levels of negative affect while those who keep autonomous goals do feel better. Indeed, while it is well established that emotional well-being and distress depend largely on social relationships, that older adults are usually more satisfied with their social networks (Carstensen, 1993), that they report

having experienced higher levels of positive emotions with members of their family than do younger adults (Charles & Piazza, 2007) and more positive than negative exchanges (Newsom *et al.*, 2008), there may be some circumstances that contradict this perspective (Charles & Carstensen, 2010). First, interpersonal tensions, which are the most commonly reported daily stressors, can lead to high levels of emotional distress (Almeida, 2005; Rook, 1984). A second circumstance may be that when faced with prolonged and unavoidable stress, age-related advantages appear to be compromised. Namely, when faced with inescapable negative events such as a severe illness older adults experience relatively high levels of physiological distress that can be highly disruptive to mental health. A third circumstance where older adults may not continue to show strong age-related increases in well-being over time is when they experience losses to their social network. Losses in social belonging are associated with increases in negative distress for people of all ages (Turvey *et al.*, 1999); they are amplified by aging in concert with the likelihood of bereavement and of loss of family or friends. Moreover, loneliness is strongly related to depression among older adults even after controlling for marital status (Cacioppo *et al.*, 2006), and researchers suggest that the effects of loneliness on physiological functioning may even be stronger among older adults than younger adults (Hawkley & Cacioppo, 2007). Whereas older people regulate low levels of negative distress quite well, they have greater difficulty when they experience distress for relatively long periods of time. When situations creating high levels of distress are unavoidable, age-related advantages in well-being disappear and can even turn into disadvantages (Charles & Piazza, 2007).

Finally, our findings give evidence for the importance of "Autonomy as a need" (Deci & Ryan, 2008). They show that autonomy which comprises both intrinsic motivation and the types of extrinsic motivation in which people have identified with an activity's value and have integrated it into their sense of self in the course of their lives, continues into the limited time ahead. Therefore our results illustrate Lang and Carstensen's assertion (2002): 'we do not make «all or none» distinctions about goal pursuits... There are many times where opportunities for expanding one's horizons do not conflict with pursuing emotionally meaningful goals. Instead different types of goals are bundled together... For an 80 year-old returning student, emphasizing emotional satisfaction in one's college studies may be highly adaptive" (p.137).

The present study has some limitations. First, we did not measure the condition of the future time perspective directly but used an indirect index. A direct measure of the future time perspective, such as the scale by Carstensen and Lang (1996) should ideally be included in future ESS surveys. Second, concerning the congruence/incongruence effect on SWB, neither the "choose a contact partner" task by Fredrickson and Carstensen (1990) nor the circle-diagram method (Kahn & Antonucci, 1980) could be applied for assessing the personal networks of participants. Despite these limitations, based on representative samples of countries with various levels of development, the present study shows that, as suggested by the theory of socio-emotional selectivity, it is the restriction in time left to live, rather than age or cohort membership that explains shifts in contact preferences.

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