BADIÂA BOUAZZAOUI and ETIENNE MULLET

EMPLOYMENT AND FAMILY AS DETERMINANTS OF ANTICIPATED LIFE SATISFACTION: CONTRASTING EUROPEAN AND MAGHREBI PEOPLE'S VIEWPOINTS

ABSTRACT. The present study examined the relationship between life satisfaction, personal employment, spouse employment, and family responsibilities as perceived by lay people and, more specifically, studied the extent to which the additive threshold model evidenced by Macri and Mullet American Journal of Psychology 116, pp. 581-611 (2003) and Bouazzoui and Mullet Journal of Happiness Studies 3, pp. 129–159 (2002) on Greek and French samples can be generalized to a Maghrebi sample. One hundred young French adults of Maghrebi origin were presented with several vignettes depicting family conditions in terms of the three variables. Their task was to rate each vignette in terms of anticipated life satisfaction. The rule that best accounted for anticipated satisfaction was the hypothesized additive threshold rule: Anticipated Satisfaction = Proximity to optimal personal employment level + Proximity to spouse optimal employment level + Proximity to optimal family size, as far as acceptable personal and spouse employment levels are considered. When unacceptable personal or spouse employment levels were present, the level of satisfaction with life that was derived from the other sources was strongly reduced.

KEY WORDS: family, life satisfaction, Maghreb, work.

The present study was aimed at comparing the relationships between life satisfaction, personal employment, spouse employment and family responsibilities as perceived by young French adults from two different origins: European and Maghrebi. In other words, the present study was aimed at comparing lay theories as regards well-being among two different cultural groups, a type of approach which importance has recently been stressed by Hong and Chiu (2001).

The study of the way people conceive of the relationship between employment, family, and life satisfaction is important from at least two standpoints. First, most decisions people make for themselves in their life are based on their personal perceptions and convictions, as far as life satisfaction is concerned (Muñoz Sastre, 1999). If someone thinks that working full-time is the only way to attain full personal satisfaction with life, due to perceived family role (the male-breadwinner family model, Lewis, 1992), this person will then experience some distress if forced to work three-quarter time, and will experience great distress if forced to work half-time. Second, the way we perceive the well being of others and the decisions we make for others are, in the same way, largely dependent upon our personal convictions. For example, «modern» parents may become quite perturbed if their newly married daughter chooses to quit her job and have three children. They may be afraid she is not realizing her full potential by just raising a family and not having independent financial resources. They may then be resentful toward their son-in-law to whom they might attribute the responsibility of their daughter's decision, in particular if their son-in-law is from another cultural background. It is, thus, this type of thinking that may lead to the creation of a family dysfunction.

PREVIOUS WORK

Early work by Coombs (1979) concerned the measuring of commitment to work in the work-family trade-off context. Participants in these studies, all Americans, were presented with several vignettes depicting family conditions in terms of number of children (zero to three) and personal employment (no job, half time, three-quarter time, and full time). The participants' task was to rank these vignettes from the most satisfying to the least satisfying outcome. Using conjoint measurement analysis, the author found two factors: Total personal involvement (in the work-child domain) and Work-Child preference. Subsequent work by DiBenedetto and Title (1990), also conducted in the USA, and using the same method showed that work and family roles were conceived as independent for males and interdependent for females. Contrary to males, females were expected to choose the former or the latter or to make a reasonable compromise between the two.

Other studies have focused on the way young people talk about combining work and family. Lewis et al. (1998) assessed the meanings 18–30 year-olds living in five European countries associate with family, their current work and life priorities, and the way they foresee the work-family combination. Among other things, the authors showed that young people (a) appear to live in an extended present, full of freedom, choices, and opportunities, (b) have significant work-life priorities and value quality of life both within and beyond paid work, and (c) females and males expectations are converging; particularly most educated males hope to share family work. «The work–family arrangements that [they] think will adopt if they have young children vary both between and within countries. Their expectations are based on attitudes ranging from a modern view, most typical of Sweden and Norway ... to a traditional view most prevalent among the Irish participants, favoring mothers at home» (Lewis and Cooper, 1995; Lewis et al., 1998, p. 2).

Macri and Mullet's (2003) work, carried out in Greece was aimed at providing a model of the perceived relationship between personal employment, spouse employment, family responsibilities, and anticipated life satisfaction. Young Greek adults were presented with several vignettes depicting family conditions, and instructed to rate each vignette in terms of anticipated life satisfaction. Among females, the highest personal satisfaction level was associated with personal half-time work (closely followed by three-quarter time work), and spouse full-time work. Among males, it was associated with personal full-time work, spouse half time or three-quarter time work, and one child. When the number of children factor was re-ordered as a function of optimality, it played a non-negligible role in life satisfaction among both males and females. The combination model proposed by Macri and Mullet (2003), inspired from Muñoz Sastre (1999), was an additive threshold model that may be expressed as Anticipated Satisfaction = Proximity to optimal personal employment level + Proximity to spouse optimal employment level + Proximity to optimal family size, as long as acceptable personal and spouse employment levels are considered. This model was very typical of females' responses: When one of the two employment factors was very far from the optimal level, young Greek females feel unable to make the most of the satisfaction they could have derived from the fact that the alternative employment level (spouse or personal) could nevertheless be close to optimum. This model also was at work among males, and regarding the way personal and partner's employment levels were combined with the family responsibilities factor.

Bouazzaoui and Mullet (2002) examined the extent to which the additive threshold model evidenced by Macri and Mullet (2003) can be generalized to other samples. They turned to another, more developed European country, France, and selected two a priori contrasted sub-samples regarding the way the relationship between life satisfaction, employment and family can be conceived among males and females: (a) young French adults; that is, people who are at the beginning of their productive lives and usually have no children, and (b) elderly French adults; that is people who have lived 40 or more years of productive work and who have raised one or more children. Bouazzaoui and Mullet wanted to contrast the (possibly different) youth's and older's attitudes because if among both samples the same combination model was found this would be a strong argument for the validity of young adults' conceptions of the determinants of life satisfaction. In the alternative case, it could be suspected that the complex model found by Macri and Mullet (2002) possibly only reflected the young people's inexperience with life.

Bouazzaoui and Mullet's data supported the hypothesis that the additive threshold model applies to elderly participants, as well as to young participants. In both samples, (a) the impact of the spouse employment was conditioned by the personal employment level, and the impact of the personal employment was conditioned by the spouse employment level, and (b) the impact of the family size factor was conditioned by the personal and spouse employment levels, and the impact of the personal and spouse employment factors was conditioned by the number of children level. It was among young females that the additive threshold model was most clearly found: The Anticipated Satisfaction = Proximity to optimal employment level + Proximity to optimal spouse employment level + Proximity to optimal family size rule applied except when the personal employment level or the spouse employment

level or the family size were far from the optimal level, in which cases the overall anticipated satisfaction level was lower than expected. Among all samples, however, patterns were clearly additive when values were not too far from optimality, and they were clearly interactive when at least one value was contra-optimal. In addition, the order of importance of the three factors was the same among young and elderly participants: The relatively weak importance given to the proximity to optimal family size component of the model as compared with both employment components was not specific to young people.

THE PRESENT STUDY

The objective of the present study was to pursue the investigation of the perceived relationship between life satisfaction, employment and family responsibilities, and notably to study the extent to which the additive threshold model evidenced by Macri and Mullet (2003) and Bouazzaoui and Mullet (2002) in two European samples could be generalized to samples from other culture. In other words the objective of the study was to examine whether the basic judgment rule was similar among groups despite possibly important cultural differences (Hong and Chiu, 2001). We selected a new *a priori* very contrasted sample regarding the way the relationship between life satisfaction, employment and family responsibilities can be conceived – young French adults of Maghrebi origin – and we compared their responses with the ones gathered by Bouazzaoui and Mullet.

In present day Maghreb, work is highly valued among males. According to Annawaw (1994), "The best food one can eat is the very one that has been acquired through one's own work" (p. 157). For most people living in the Maghreb, however, there is no government help in the case of job loss. This strongly contrasts with the current situation in Western Europe were government help is the rule, at least during several years after the loss of the job. In the Maghreb, lack of work for the male equals lack of basic resources for the family, which is not true in Western Europe.

In traditional Maghrebi culture, the woman's role tends to be limited to the mother and spouse one. This role is, however, not considered as depreciating. According to Islam, "The Paradise of every man is on his mother's feet". In addition, the economic situation in North Africa is very favorable to well specified and separated gender roles. High levels of unemployment discourage female's paid employment. Males are educated with the basic idea that the man is the family's head whose duty is to provide for his family's needs.

In present day Maghreb and, to a greater extent, in Maghrebi communities living in France, the masculine and feminine roles have, however, considerably evolved under the influence of Western European reality in which female work, and female independence are increasingly valued by most people. In wealthy Maghrebi families, female's paid work is well tolerated if it leads to an increase in the prestige of the group. In poor families, it also is tolerated if it allows improving the bad economic condition of the group. Also, female's work is tolerated before marriage when it contributes to make these females more attractive in view of marriage. The main point is, however, that female's paid work tends to be strictly dependent on the symbolic and/or economic needs of the group (Vinsonneau, 2002).

As regards family planning, Islam, as well as Christianity, disapproves of the concept but daily life sexual practices in both communities are clearly in contrast with the religious principles. Islam, as well as Christianity, disapproves of contraception because it is considered as unnatural but most Maghrebi people, like most European people, consider that limiting the number of children in a family is a definite source of satisfaction when resources are scarce. Among Maghrebi people living in France, contraceptive techniques are frequently used. Among females, however, who are traditionally more concerned with religion, some of them might even not consider family size subject to an informed decision.

HYPOTHESES

In view of the similarities and differences between the two cultures, several hypotheses were put forwards regarding the relationship

between employment and anticipated life satisfaction in young French adults of Maghrebi origin. First, the personal employment factor should be the dominant factor among males from both cultures, as it was among European males in previous studies (the male-breadwinner family model, Lewis, 1992). Males should tend to agree completely with the view that the higher their employment level the higher their anticipated life satisfaction (Bouazzaoui and Mullet, 2002; Macri and Mullet, 2003). In contrast, the personal employment factor should not be the dominant factor among females. In addition, most females of Maghrebi origin should consider the personal employment factor as more or less irrelevant. As a result, the males—females differences regarding the impact of the personal employment factor, and the form of the relationship, should be higher in Maghrebi origin than in European origin participants.

Second, the spouse involvement in work factor should be the dominant factor among females of Maghrebi origin, as it was among European males. They should tend to agree completely with the view that the higher their spouse employment level, the higher their anticipated life satisfaction (Bouazzaoui and Mullet, 2002; Macri and Mullet, 2003). By contrast, the spouse employment factor should not be the dominant factor among males. In addition, most males from Maghrebi origin should consider the spouse employment factor as more or less irrelevant. As a result, the male–female differences regarding the impact of the spouse employment factor, and the form of the relationship, should be higher in Maghrebi origin than in European origin participants.

Third, the relationship between family size and satisfaction with life should be weaker than the relationship between personal (for males) and spouse (for females) employment and life satisfaction. The young participants of Maghrebi origin, as was previously seen among young European adults (Bouazzaoui and Mullet, 2002; Macri and Mullet, 2003), should not typically express strong convictions in terms of optimal family size associated with higher life satisfaction. We did not expect a difference between European and Maghrebi origin participants.

Fourth, the way in which personal employment information and spouse employment information are integrated in an anticipated satisfaction judgment should not follow a simple additive rule. Among participants of Maghrebi origin, as was seen in the European samples (Bouazzaoui and Mullet, 2002; Macri and Mullet, 2003), the impact of spouse work involvement should be conditioned by the personal employment level, and the impact of the personal work involvement should be conditioned by the spouse employment level. When both levels are acceptable, the relationship should be an additive one. But when one of these levels is far from the optimal level, the anticipated life satisfaction should be low or at best moderate.

Fifth, and lastly, the way in which employment information and family size information are integrated in an anticipated satisfaction judgment should not follow a simple additive rule. Among participants of Maghrebi origin, as was evidenced in the European samples, the impact of the number of children factor should be conditioned by the personal and spouse employment levels, and the impact of the personal and spouse employment factor should be conditioned by the number of children level.

METHOD

Participants

The participants in this study were the 100 young adults (50 males and 50 females) of European origin whose data were already analyzed and presented in Bouazzoui and Mullet (2002), and a new sample of 100 young adults (49 males and 51 females) of Maghrebi origin. All the participants were born in France, and currently lived in the "Centre" region in France (main towns: Tours, Orléans, Chartres). It should be noted that efforts were made to ensure that participants had diversified educational levels. In the Maghrebi origin sub-sample, 13 participants (10 males and 3 females) had not completed secondary education, 77 (33 males and 44 females) had completed secondary education and 10 (6 males and 4 females) had university degrees. In the European origin sub-sample, the corresponding figures were 10 (5 males and 5 females), 66 (30 males and 36 females), and 24 (15 males and 9 females). The mean age was 22.2 (SD = 2.36). The participation rates were 74% and 77%, for the Maghrebi and European sub-samples, respectively.

Material

The material was composed of the same 64 cards used in Macri and Mullet's (2003) and Bouazzaoui and Mullet's studies. Each card contained three pieces of information: (1) regarding personal occupational level (no job, half-time job: 18 h weekly, three-quarter-time job: 26 h weekly, and full-time job: 35 h weekly); (2) regarding spouse occupational level (no job, half-time job, three-quarter-time job, and full-time job as above) and (3) regarding the number of children in the family (no child, one child, two children, three children). The 64 cards were obtained by orthogonal combination of the levels of each factor ($4 \times 4 \times 4 = 64$). On the bottom part of each card there was a 14-cm-response scale with Very Low Life Satisfaction Level as the left anchor and Very High Life Satisfaction Level as the right anchor (Anderson, 1982).

Procedure

The participants were given the cards and informed that each combination corresponded to one of the possible situations in which they could find themselves in the future (for example when they were 40). They were told that some of the situations could be considered as either desirable or poor outcomes from the point of view of the life satisfaction level they procure.

According to Anderson (1982), testing took place in two phases. During the first, familiarization phase, the participants were presented with the whole set of 64 cards. They were then asked to read the information and to rate each combination along the life satisfaction response scale, at the appropriate level between low and high. They were allowed to go back and compare responses given to two or more cards, potentially correcting them, until they were satisfied with their ratings.

During the second, experimental phase, the participants were presented with the same set of 64 cards and asked to rate again their anticipated life satisfaction level. They were not allowed to compare or correct their ratings. Testing was individual and self-paced.

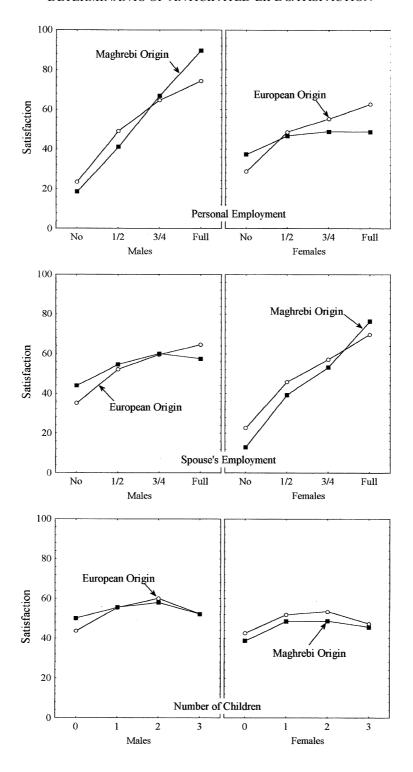
RESULTS

The distance in centimeters between each mark for each participant on each scenario and the Very Low Anticipated Life Satisfaction Figure 1. Anticipated life satisfaction as a function of personal employment (top panels) spouse employment (center panels) and number of children (bottom panels) and as a function of gender of participants and origin. The six panels show the raw data.

anchor was measured for the second, experimental phase. The participants used the entire range of the scale for their ratings. An ANOVA was performed with a Gender × Origin × Personal Occupational Level × Spouse Occupational Level × Number of Children, $2 \times 2 \times 4 \times 4 \times 4$ design. All three within-subject factors had significant effects: F(3, 588) = 348.04, p < 0.001, for personal employment, 341.50, p < 0.001, for spouse employment, and 26.14 for family size, p < 0.001.

Effects of the Employment and Family Factors (Raw Data)

Figure 1 (top part) presents the effect of the personal employment factor on expected satisfaction, and its variation as a function of gender and origin. On the vertical axis the anticipated life satisfaction levels (the mean ratings) are placed. The two curves in each panel correspond to Maghrebi and European origin participants' ratings. The personal employment levels are placed on the horizontal axis. The left-hand panel shows males results and the right-hand panel shows female's results. In the left panel, both curves are clearly ascending; the higher the personal employment level, the higher the anticipated satisfaction. The Maghrebi curve is linearly ascending. The European curve is negatively accelerated. In the right panel, both curves are ascending but to a much lesser extent than in the left panel. The personal employment level factor has much less effect in females than in males. The European curve is negatively accelerated, and the highest satisfaction level corresponded to full time employment. The Maghrebi curve is slightly ascending and then roughly flat. The males-females difference was more accentuated in the Maghrebi sample than in the European sample. The Gender × Origin × Personal employment interaction was significant, F(3, 588) = 23.63, p < 0.001. In addition, the female's curve is slightly lower than the males curve (47.1 vs. 53.4, out of 160). Females anticipated a lower overall life satisfaction than males, F(1, 196) = 10.64, p < 0.001.



The center panels of Figure 1 presents the effect of the spouse employment factor on expected satisfaction, and its variation as a function of gender and origin. The spouse employment levels are placed on the horizontal axis. In the right panel, both curves are clearly ascending; the higher the spouse employment level, the higher the anticipated satisfaction. The Maghrebi curve is linearly ascending. The European curve is somewhat negatively accelerated. In the left panel, both curves are ascending but to a much lesser extent than in the right panel. The spouse employment level factor has much less effect on males than on females. The European curve is negatively accelerated, and the highest satisfaction level corresponded to full time employment. The Maghrebi curve is ascending and then descending, and the highest satisfaction level corresponded to three-quarter time employment. The males-females difference was more accentuated in the Maghrebi sample than in the European sample. The Gender × Origin × Spouse employment interaction was significant, F(3, 588) =14.46, p < 0.001.

The bottom panels of Figure 1 presents the effect of the number of children factor on expected satisfaction. The number of children levels are placed on the horizontal axis. In both panels, curves are practically flat. The number of children factor has little effect. Overall the highest anticipated life satisfaction corresponds to one child. The number of children effect is significant, F(3, 588) = 26.14, p < 0.001, but neither interaction is involving this factor.

Other ANOVAs performed each time with an additional between-subject factor (masculinity score, femininity score, educational level, religious beliefs, religious practice) showed some additional significant interactions linked with one of these additional factors. Specifically, the Educational level \times Number of children interaction was significant, F(6, 564) = 3.48, p < 0.003. Among lower level education women, the effect of number of children factor was such that the optimal level was no children. Among other subgroups of participants the preferred levels were one or two children.

Effects of the Employment and Family Factors (Re-ordered Data) In order to take into account individual differences, notably the preference regarding the number of children, and as a result, be in

a better position to illustrate the rule employed, data was, as in Macri and Mullet (2003) and in Bouazzaoui and Mullet (2002), re-ordered for each participant. For each factor an optimal level was determined, i.e. the one associated with the highest anticipated life satisfaction level. A contra-optimal level, the one associated with the lowest anticipated life satisfaction level was then determined, and intermediate levels were also determined (see Coombs and Avrunin, 1977, for a detailed rationale, see Makris and Mullet, 2003, for a recent application). As an example, suppose that for one participant the mean values associated with the four levels (1 – No job, 2 – Half-time job, 3 – Three-quarter-time job, and 4 – Full-time job) of the spouse employment factor were 80, 60, 40, and 20. For this participant, the proper re-ordering of this factor is: 1 – Full-time job, 2 – Three-quarter-time job, 3 – Half-time job, and 4 – No job. As another example, suppose that for another participant the mean values associated with the four levels of the personal employment factor were 10, 70, 50, and 20. For this participant, the proper reordering of this factor is: 1 – No job, 2 – Full-time job, 3 – Threequarter-time job, and 4 – Half-time job.

For each participant, the 64 responses were filled in a $4 \times 4 \times 4$ matrix composed in such a way that the order of the mean values for the rows and columns of the matrix would be monotonically increasing. From one participant to another the preference order was slightly different, that is to say, from one participant to another, the structure of the matrices was not always exactly the same. Averaging over participants was done within these matrices.

Figure 2 presents the effect of the three re-ordered (from contraoptimal to optimal) life satisfaction factors, and their variation as a function of gender. The top panels show the effect of the personal employment factor. The optimized personal employment levels are on the horizontal axis. In both the panels, both curves are ascending; the closer the personal employment level to the optimal level, the higher the anticipated satisfaction. This is a trivial observation, but what is less trivial is the fact that the female's curves, although still less steep than the males curves, F(4, 588) = 67.24, p < 0.001, are clearly ascending (compared with the corresponding panel in Figure 2), even in the Maghrebi sample. The personal employment level thus had a real impact on

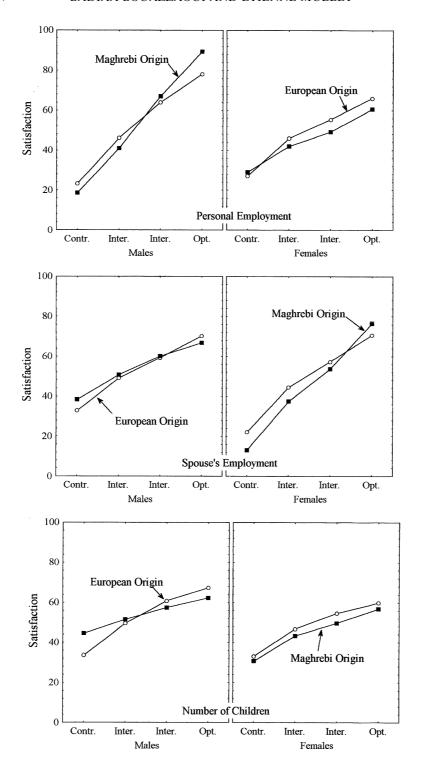


Figure 2. Anticipated life satisfaction as a function of personal employment (top panels) spouse employment (center panels) and number of children (bottom panels) and as a function of gender of participants and origin. The six panels show the re-ordered data.

the female's anticipated life satisfaction judgments. Males—females differences regarding this impact were more accentuated in the Maghrebi sample than in the European sample. The Gender \times Origin \times Personal employment interaction was significant, F(3, 588) = 11.61, p < 0.001.

The center panels show the effect of the spouse employment factor. On the horizontal axis there can be found the optimized spouse employment levels. In both panels, both curves are, for the same trivial reasons, ascending; the closer the spouse employment level to the optimal level, the higher the anticipated satisfaction. The males curves, although less steep than the female's curves, F(3, 588) = 44.62, p < 0.001, are still clearly ascending. The spouse employment level had thus a real impact on the males anticipated life satisfaction judgments. Males–females differences regarding this impact are more accentuated in the Maghrebi sample than in the European sample. The Gender × Origin × Personal employment interaction was significant, F(3, 588) = 12.42, p < 0.001.

The bottom panels show the effect of the number of children factor. On the horizontal axis we can see the optimized number of children levels. In both panels, curves are slightly ascending, Among both females and males, the impact of the number of children on anticipated life satisfaction was moderate (compared with corresponding top panel). The strongest effect was observed among European males. The Gender \times Origin \times Number of children interaction was significant, F(3, 588) = 7.20, p < 0.001.

Other ANOVAs performed each time with an additional between-subject factor (masculinity score, femininity score, educational level) did not show additional significant effects or interactions linked with one of these additional factors.

Figures 3–5 present, two by two, the effect of the three re-ordered life satisfaction factors, and their variation as a function of gender and origin. In Figure 3, the combined effects of the personal employment level and of the spouse employment level

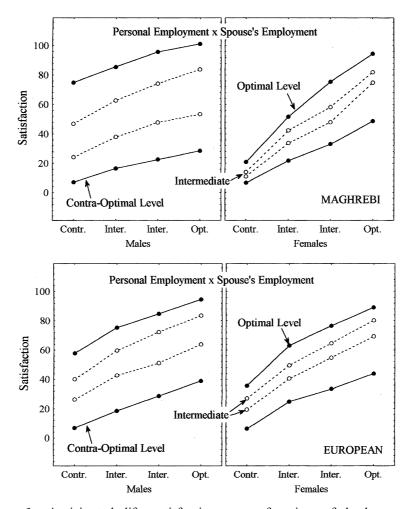


Figure 3. Anticipated life satisfaction as a function of both personal employment and spouse employment and as a function of gender of participants and origin. The four panels show the re-ordered data.

factors are presented. The four curves in each panel correspond to the re-ordered (from contra-optimal to optimal) personal employment levels. The re-ordered spouse employment levels are on the horizontal axis. In the top left panel, the four curves form a pattern of parallelism. In the top right panel, the overall pattern is very similar to the one corresponding to the additive threshold model. Finally in the other two panels, the pattern is intermediate between the one shown in the top left panel and the one shown in the top right panel. Overall, the Personal employment × Spouse

employment interaction was significant, F(9, 1764) = 12.07, p < 0.001. The Gender × Personal employment × Spouse employment interaction was also significant, F(9, 1764) = 3.41, p < 0.001.

In Figure 4, the combined effects of the personal employment level and of the number of children factors are presented. The four curves in each panel correspond to the re-ordered (from contra-optimal to optimal) personal employment levels. The re-ordered number of children levels are on the horizontal axis. In

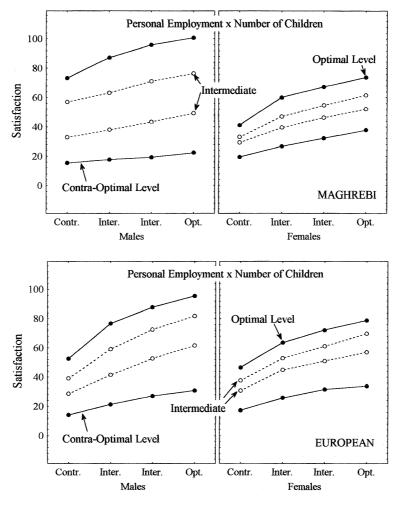


Figure 4. Anticipated life satisfaction as a function of both personal employment and number of children and as a function of gender of participants and origin. The four panels show the re-ordered data.

the three panels, the overall pattern is very similar to the one that corresponds to the additive threshold model. In the top-right panel, however, the pattern is similar to the two intermediate pattern already shown in Figure 4. Overall, the Personal employment \times Family size interaction was significant, F(9, 1764) = 27.13, p < 0.001.

In Figure 5, the combined effects of the spouse employment level factors and of the number of children factors are presented.

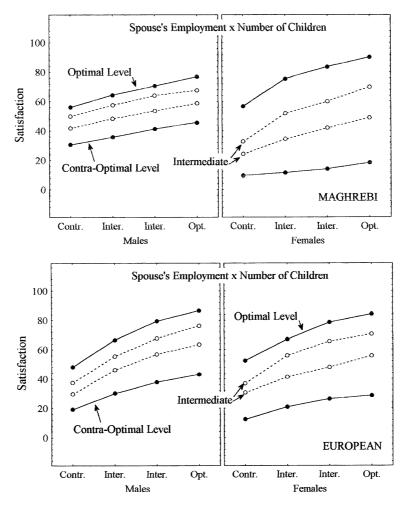


Figure 5. Anticipated life satisfaction as a function of both spouse employment and number of children and as a function of gender of participants and origin. The four panels show the re-ordered data.

The curves in each panel correspond to the re-ordered (from contra-optimal to optimal) spouse employment levels. The re-ordered number of children levels are on the horizontal axis. In the top left panel, the four curves form a pattern of parallelism. In the bottom left panel, and in the top right panel, the overall pattern is very similar to the one that corresponds to the additive threshold model. Finally, in the bottom right panel, the pattern is intermediate between the one shown in the top left panel and the one shown in the bottom left and top right panels. Overall, the Spouse employment \times Family size interaction was significant, F(9, 1764) = 18.40, p < 0.001.

DISCUSSION

The aim of the present study was, following Macri and Mullet (2003) and Bouazzoui and Mullet (2002), to examine the relationship between life satisfaction, personal employment, spouse employment and family responsibilities as perceived by young French adults issued of Maghrebi origin, and to compare their responses with the ones gathered in a previous study on a sample of young French adults from European origin.

The first hypothesis was that (a) the personal employment factor should be the dominant factor among males, (b) the form of the relationship between personal employment and anticipated life satisfaction should differ between males and females, females being expected to show preference for lower personal employment levels than males, and (c) the male–female differences regarding the impact of the personal employment factor, and the form of the relationship, should be higher in Maghrebi origin than in European origin participants.

This hypothesis was well supported by the data. Among males, the personal employment factor had the strongest effect. This result was consistent with Macri and Mullet's (2003) and Bouazzoui and Mullet's (2002) findings. When re-ordered for contra-optimal to optimal, it accounted for 81% of the total variance of the main effects against only 17% among females. Among males, the level associated with the highest personal satisfaction level was full-time work. Among females there was

no one personal employment level clearly associated with the highest satisfaction level. The difference between full-time and three-quarter-time or half time was very small. Finally, the males-females difference was stronger among Maghrebi origin participants than among European origin participants. Among Maghrebi females, as previously stated, there was no clear preference for one or another personal employment levels, while there was a discernable preference for full time among European females. Among males and females of European origin the personal employment factor, once re-ordered accounted for 54% and 33% of the variance, respectively; that is, the difference was significantly weaker than the one between Maghrebi males and females.

The second hypothesis was that (a) the spouse employment factor should be the dominant factor among females, (b) the form of the relationship between spouse employment and anticipated life satisfaction should differ between males and females, males being expected to show preference for lower spouse employment levels than females, and (c) the males—females differences regarding the impact of the spouse employment factor, and the form of the relationship, should be higher in Maghrebi origin than in European origin participants.

This hypothesis was also well supported by the data. Among Magrebi origin females, the spouse employment factor had the strongest effect. This result was consistent with Macri and Mullet's (2003) and Bouazzaoui and Mullet's (2002) findings. When re-ordered, it accounted for 69% of the variance against only 13% among males. Among females, the level associated with the highest spouse satisfaction level was full-time work. Among males, the difference between full-time, three-quarter-time, and half-time was very small. Finally, the males-females difference was stronger among Maghrebi origin participants than among European origin participants. Among Maghrebi males there was a slight preference for three-quarter time when among European origin participants there was a preference for full-time. Among European females and males participants the spouse employment factor, once re-ordered accounted for 51% and 25% of the variance, respectively; that is, the difference was significantly weaker than the one between Maghrebi males and females.

The third hypothesis was that (a) the relationship between family size and life satisfaction should be weaker than the relationship between personal (for males) and spouse (for females) employment and satisfaction with life, and (b) Maghrebi and European origin participants should not differ regarding the impact of the family size factor. The first part of this hypothesis was well supported by the data. The number of children factor had the weakest effect. When re-ordered, it accounted for 12% of the variance among males and 14% of the variance among females. This result was consistent with Macri and Mullet's (2003) and Bouazzaoui and Mullet's (2002) findings. The second part of this hypothesis was supported by the data as regards the females but not as regards the males. There was an interaction between gender and origin. Among male participants of European origin the impact of family size was higher (21%) than among male participants of Maghrebi origin (5%).

The fourth and fifth hypotheses were that the way in which personal employment information and spouse employment integration are integrated should not follow a simple additive rule: A more complex additive threshold model should apply. More specifically, (a) the impact of the spouse' employment should be conditioned by the personal employment level, and the impact of the personal employment should be conditioned by the spouse employment level, and (b) the impact of the number of children factor should be conditioned by the personal and spouse employment levels, and the impact of the personal and spouse employment factor should be conditioned by the number of children level. These hypotheses are well supported by the data.

The additive threshold model was well supported in the sample of Maghrebi origin females. The Anticipated Satisfaction additive rule applied except (a) if the spouse employment level or (b) the number of children were far from the optimal level. A contraoptimal spouse employment level was perceived as dividing by 2.9 the effect the personal employment normally has on satisfaction, and practically annihilating the effect the number of children normally has on satisfaction. A contra-optimal number of children level was perceived as dividing by 1.6 the effect the personal employment normally has on satisfaction and dividing by 1.5 the effect the mate's employment level normally has on satisfaction.

Among Maghrebi origin males, the additive threshold model was least systematically found. In Maghrebi origin males the Anticipated Satisfaction additive rule applied except (a) if the personal employment level or (b) the number of children were far from the optimal level, in which cases the overall anticipated satisfaction level was lower than expected. A contra-optimal personal employment level was perceived as slightly reducing the observed effect the number of children level normally has on satisfaction. A contra-optimal number of children level was perceived as dividing by 1.4 the effect the personal employment level normally has on satisfaction. Among Maghrebi origin males, however, Spouse employment level and Number of Children did not interact; that is a contra-optimal number of children level was not perceived as modifying the effect the spouse' employment normally has on satisfaction, and a contra-optimal spouse' employment level was not perceived as modifying the effect the number of children normally has on satisfaction.

In summary, the main finding of this study is that, as regards the judgmental rules underlying lay conceptions of well-being in the classical work–family tradeoff context, a similar basic process is at work among participants from both Maghrebi and European descent. Once this process has been correctly identified, it becomes easier to observe clear and interpretable intercultural differences (e.g., variation in importance given to work, and family, dimensions). This finding nicely illustrates a suggestion made by Chiu et al. (2000) according to which "the contradictions between cultural diversity and psychic unity are more apparent than real" (p. 257). While external, visible features of a process may qualitatively differ, more abstract, internal features (e.g., the integration rule) may similarly operate across cultures.

Limitations

This study has at least four limitations. The first one resides in the way the sample was constituted. Participants were volunteers, and although special efforts were made to contact people from different geographic areas and from different educational levels, we are unsure about the representativeness of our sample. As a result, the value of the present study is not in precisely estimating the size of the effect of the employment and

family responsibility factors on anticipated satisfaction with life in the general French population; that is among French from European origin and French from Maghrebi origin, but in adding evidence on the way satisfaction with life, employment and family responsibilities are related to each other in French people's minds.

The second limitation resides in the method used. As we were mainly interested in the way the employment and family responsibility factors interacted, and more precisely in replicating an information integration pattern found in previous studies, we have chosen to work in the framework of Norman Anderson's Information Integration methodology (1982, 1996). Other techniques, however, could have been implemented. For simply knowing the optimal personal employment level, it might have been possible simply to ask participants to indicate it on importance scales. The resulting data might have been different because participants in general are not very well informed about the relative importance of factors when deciding or judging.

A third limitation of the current study resides in that, as already emphasized in the introduction, what we gathered was evidence of differences in anticipated level of satisfaction associated with diverse conditions. It is possible, therefore, that there are no actual differences in levels of satisfaction experienced in these same conditions: As already shown by Gilbert et al. (1998), affective forecasting is often biased and inaccurate (see also Kahneman, 1999). In the present study, what we were interested in was the anticipated levels of satisfaction because the decisions taken by people (to work or to reduce the family size) are a function of their anticipation, and not a function of their objective values. Decisions or judgments are usually not based on objective values because these objective, scientific values are generally not known by people or not available to them or when available to them not relied on. It could, however, be interesting to complement the present study with futures studies on the actual differences in life satisfaction between French from Maghrebi origin and French from European origin placed in the same work–family circumstances. This would require a completely different methodology.

A fourth limitation resides in the model itself: the additive threshold rule. There is at present no analytic strategy that capture this notion; that is, nothing that embodies proximity to threshold or different patterns conditioned on being above or below the threshold. Future studies should be devoted to more closely examine the role of the threshold and its variations as a function of situations and participant's characteristics.

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REFERENCES

- Anderson, N.H.: 1982, Methods for Information Integration Theory (Academic Press, New York).
- Anderson, N.H.: 1996, A Functional Theory of Cognition (Mahwah, New Jersey, Erlbaum).
- Annawawi, M.: 1994, Riyad As-Salihin [The garden of the vertuous]. Tunis, Dar Al-Gharb Al-Islami, Translated by Salaheddine Keshrid.
- Bouazzaoui, B. and E. Mullet: 2002, 'Workload, family responsibilities, and anticipated life satisfaction: Contrasting young adult's and elderly people's viewpoints', Journal of Happiness Studies 3, pp. 129–152.
- Chiu C., Y. Hong, M.W. Morris and T. Menon: 2000, 'Motivated cultural cognition: The impact of implicit cultural theories on dispositional attribution varies as a function of need of closure', Journal of Personality and Social Psychology 78, pp. 247–259.
- Coombs, L.C.: 1979, 'The measurement of commitment to work', Journal of Population 2, pp. 203–223.
- Coombs, L.C. and G.S. Avrunin: 1977, 'Single-peaked functions and the theory of preference', Psychological Review 84, pp. 216–230.
- DiBenedetto, B. and C.K. Title: 1990, 'Gender and adult roles: Role commitment of females and men in job-family trade-off context', Journal of Counseling Psychology 37, pp. 41–48.
- Hong, Y. and C. Chiu: 2001, 'Toward a paradigmatic shift: From cross-cultural differences in social cognition to social-cognitive mediation of cultural differences', Social Cognition 19, pp. 181–196.

- Gilbert D.T., E.C. Pinel, T.D. Wilson, S.J. Blumberg and T.P. Wheatley: 1998, 'Immune neglect: A source of durability bias in affective forecasting', Journal of Personality and Social Psychology 75, pp. 617–638.
- Kahneman D.: 1999, 'Objective happiness', in D. Kahneman, E. Diener and N. Schwartz (eds), Well-Being: The Foundation of Hedonic Psychology. (Russell Sage, New York).
- Lewis, J.: 1992, 'Gender and the development of welfare regimes', Journal of European Social Policy 2, pp. 159–173.
- Lewis, S. and C. Cooper: 1995, 'Balancing the work-family interface: A European perspective', Human Resources Management Review 5, pp. 289–305.
- Lewis, S., J. Smithson, J. Brannen, M. Guerreiro, C. Kugelberg, A. Nilsen and P. O'Conner: 1998, Young Europeans talk about combining work and family. Manchester, IOD Research Group.
- Makris, I. and E. Mullet: 2003, 'Judging the pleasantness of contour-rhythm-pitch-timbre combinations', American Journal of Psychology 116, pp. 581–611
- Macri, D. and E. Mullet: 2003, 'Work load family, responsibilities and anticipated well-being: The point of view of Greek youth', Community Work and Family 6, pp. 183–201.
- Muñoz Sastre M.T.: 1999, 'Lay conceptions of well-being and rules used to judge well-being in young adults middle-aged and elderly people', Social Indicators Research 47, pp. 203–231.
- Vinsonneau, G.: 2002, L'identité culturelle [Cultural identity] (Colin, Paris). Wunderink, S.R.: 1995, 'Is family an economic decision?' Journal of Economic Psychology 16, pp. 377–392.

Address for Correspondence: ETIENNE MULLET Quefes 17 bis F-31380 Plaisance-du-Touch France

E-mail: mullet@univ-tlse2.fr