

Norms and attitudes to body fatness: a European comparison

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The growing problem of obesity is a major public health issue in many industrialized countries. As overweight becomes a greater focus of attention, how do individuals assess their own body fatness? Do men and women see things in the same way? Do perceptions differ across Europe? After describing the variations in mean body mass index between countries, Thibaut de Saint Pol analyses the way European men and women perceive their own body.

Mean body fatness, expressed as the body mass index (BMI, see Box 1), varies across Europe (Figures 1 and 2). Mean BMI is lowest in France and Italy and highest in the United Kingdom and Greece.

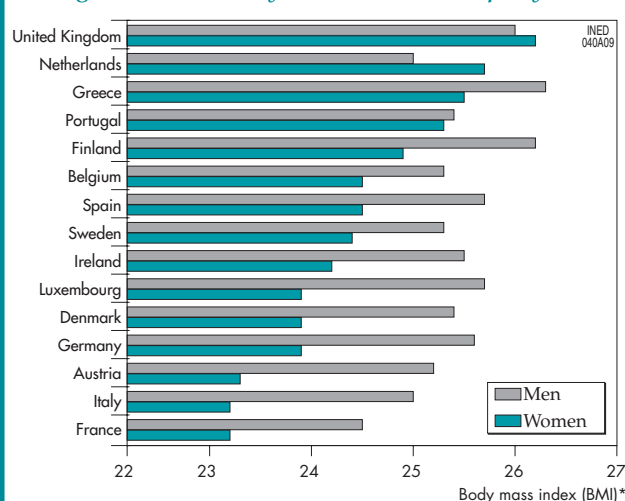
Inter-country differences in body fatness are particularly pronounced among women. Countries where women have a low mean BMI are also those where the difference between men and women is greatest, and this is especially true in France. Although obesity has increased rapidly in France since the 1990s [1], being slender seems to be very desirable among women, so norms for body fatness are low and there is strong pressure to remain thin. We will seek to confirm this hypothesis.

◆ Women more dissatisfied with their weight than men

In the European Union as a whole (1), 45% of individuals report being dissatisfied with their weight, with 40% considering themselves overweight and 5% underweight. Women are more frequently dissatisfied (51%) than men (39%), even though men are more often overweight or obese under the WHO criteria. The reasons for dissatisfaction are also different, with slightly more men than women judging themselves to be underweight.

Men more often view their low weight as a problem, and see high body fatness as a positive sign of strength. For women, on the other hand, overweight is more undesir-

Figure 1 - Mean body mass index in Europe by sex



* See Box 1 for a description of how BMI is calculated.

Note: mean BMI of European men is higher than that of women, except in the UK and the Netherlands.

(T. de Saint Pol, *Population & Societies*, 455, INED, April 2009)

Source: European Commission, Eurobarometer 59.0.

(1) The countries considered here are the 15 member countries of the European Union in 2003, weighted by their respective population sizes.

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able than underweight. In Europe, there are almost as many women who think that they weigh too much (46%), as women who are satisfied with their weight (49%).

This higher level of dissatisfaction among women is found at all ages. It is true for teenage girls who, more so than boys, tend to consider themselves as overweight or even obese when their weight is actually normal under the WHO criteria [2]. The subjective perception of being overweight is also observed in the United States, where 38% of women of “normal” weight see themselves as overweight and where, conversely, 33% of overweight men think that their weight is normal or even low [3].

Because of stigmatization and associated health problems, obesity generates much greater dissatisfaction than under- or overweight, for men and women alike. Compared with a women of the same age and of normal body fatness, an obese woman is 48 times more likely to be dissatisfied with her weight than otherwise. The relative risk among men, although lower, is 32.

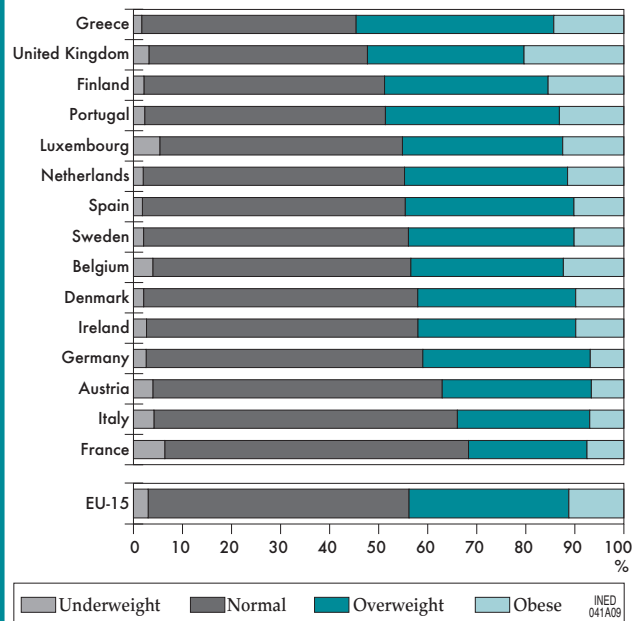
Body weight dissatisfaction reflects a discrepancy between actual – or perceived – weight and desired weight. Ideal weight is thus a key factor in individuals’ attitudes to their body weight.

◆ Can we define an ideal weight?

Defining an ideal weight for an entire population is difficult because the notion is highly subjective. It can nonetheless be deduced by plotting curves of weight satisfaction against body mass index (Figure 3). As BMI gets higher, the proportion of individuals who see themselves as underweight decreases while the proportion who consider themselves overweight increases. The two curves intersect at a BMI which reflects this ideal, i.e. at a value where exactly the same number of people perceive themselves as either underweight or overweight. For the European Union as a whole, this “ideal” BMI is 22.6 for men and 19.8 for women. There is a large difference in ideal BMI between the sexes. With a mean reported BMI of 25.5 for men and 24.5 for women, the gap between the ideal and the actual BMI is larger for women than for men (4.7 points versus 2.9). This is consistent with the more widespread dissatisfaction among women, despite their lower BMI.

The curves close to the intersection point are steeper for women, showing that they more quickly become dissatisfied when their weight moves away from the ideal. Last, for 9% of women this “ideal” weight is either too high or too low, while for men the proportion is 7%. In other words, 82% of women at this crossing point are satisfied with their weight, versus 86% of men. More women remain dissatisfied at this “ideal” level, but, like mean BMI, the situation is different in each country.

Figure 2 - Population breakdown by BMI category in each country (men and women combined)



Interpretation: 2% of Greeks are underweight, 44% are of normal weight, 40% are overweight and 14% are obese.

Note: The proportion of obese is under-estimated in some countries due to reporting bias (see Box 1).

(T. de Saint Pol, *Population & Societies*, 455, INED, April 2009)

Source: European Commission, Eurobarometer 59.0.

◆ Underweight especially prized by French women

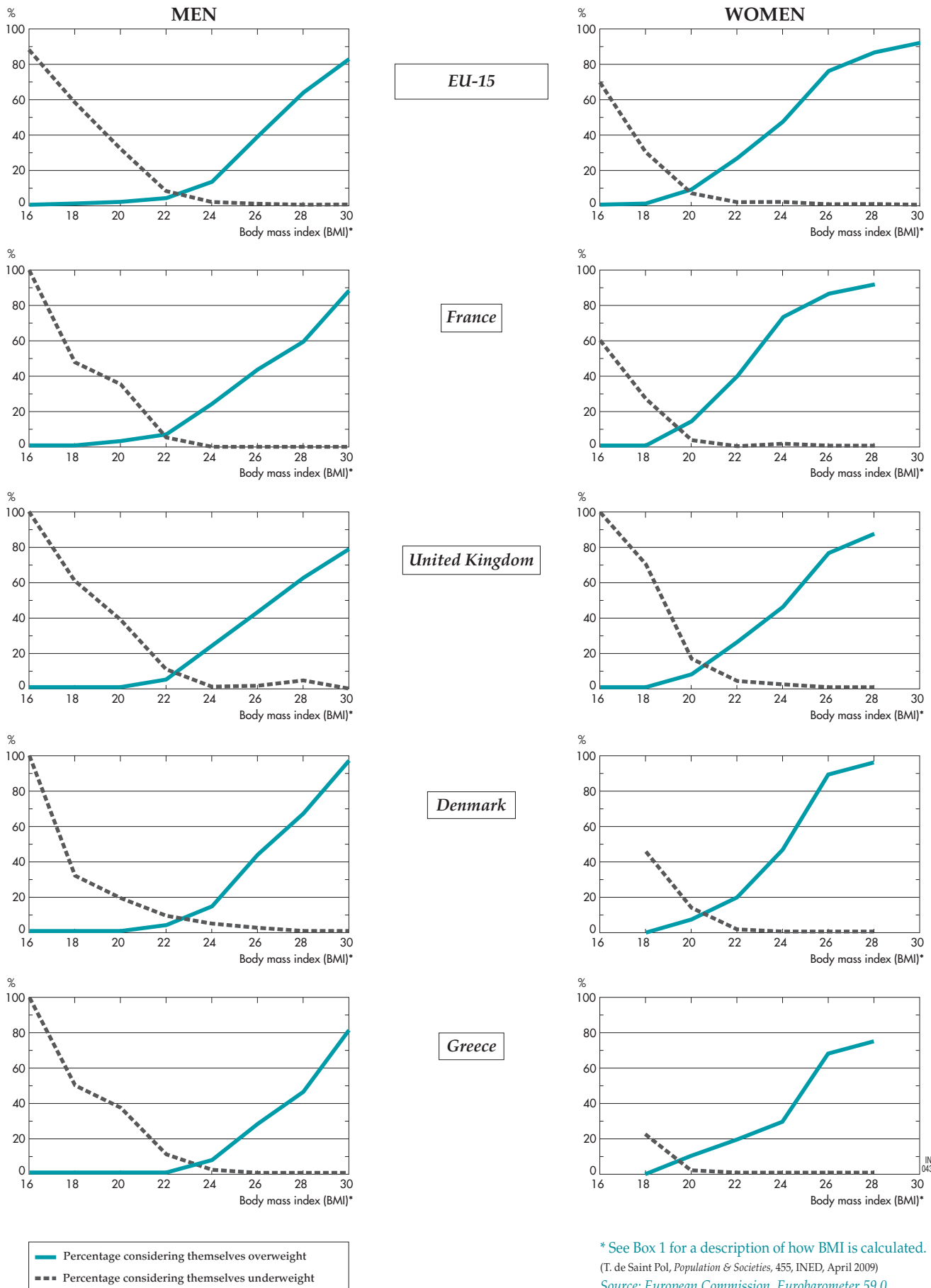
In France, the number of women who perceive themselves as underweight is only half the number who are actually underweight. In Portugal, Spain and the United Kingdom, the opposite is true: while the proportion of underweight women in these countries is below one-third of the proportion in France, more women perceive themselves to be underweight than is actually the case. In other words, low female BMI is highly sought after in France.

By contrast, low BMI is viewed negatively by men throughout Europe. In all countries, the proportion of men who perceive themselves to be underweight is higher than the number who actually meet the WHO criteria for this weight category.

But satisfaction cannot be deduced from mean BMI. Austrians, for example, are more satisfied on average with their weight than the French, although their mean BMI is much higher. In other words, the same BMI is perceived differently from one country to another. Individuals who see themselves as overweight in France, a country where mean BMI is quite low, will be satisfied with their weight in a country where mean BMI is higher.

In France, ideal male BMI is 22.0 (intersection between underweight/overweight dissatisfaction,

Figure 3 - Weight satisfaction by body mass index (BMI)



Box 1

Body mass index (BMI)

For a person who measures 1.60 m and another who measures 1.90 m, a weight of 65 kg means something quite different. In other words, body weights can only be compared in relation to height. In practice, body weight (in kg) divided by the square of height (in metres), known as the body mass index (BMI), is a better comparative indicator.

For example, the BMI of a man who weighs 100 kg and measures 2 m is calculated by dividing 100 by the square of 2, which comes to 25. A man who weighs 90 kg and measures 1.73 m has a BMI of 30 (90 divided by 1.73²). Although his weight is lower, his body fatness measured by his BMI is higher than that of the first man. A third man, weighing 60 kg, but measuring only 1.41 m, also has a BMI of 30 (60 divided by 1.41²). Although the second and third men have different heights and weights, their BMI is the same.

The World Health Organization has defined the following categories, applicable to individuals aged between 18 and 65:

BMI < 18.5: underweight

18.5 ≤ BMI < 25: normal

25 ≤ BMI < 30: overweight

BMI ≥ 30: obese

The categories defined by the WHO and their thresholds reflect levels of health risk associated with different BMI values. They do not correspond to an aesthetic judgement of any kind. Readers may refer to earlier articles for a more detailed analysis of the problems raised by these thresholds and their limitations [4].

Note also that the heights and weights used here are not measured, but self-reported and therefore prone to inaccuracy. Respondents round out their weights and are sometimes tempted to cheat [5]. Women tend, on average, to subtract a few kilos, while men tend to add them [6].

Box 2

Eurobarometer 59.0

The Eurobarometer 59.0 survey was conducted between 18 March and 30 April 2003. It covered a sample of 16,300 EU citizens (15 countries in 2003) aged 15 and over and living in a member country.

In each country, a multi-stage probability sampling method was used to select the survey sample. Sampling points were drawn with a probability proportional to the population size (to cover the entire country) and population density. In each selected sampling point, an address was drawn at random and in each household, the respondent was drawn at random. All interviews were conducted face-to-face at the respondent's home.

In each country, the sample was matched against the actual population using population data published by Eurostat. For each member state, a national weighting procedure was applied (marginal and cross-weighting), taking account of sex, age, region (NUTS 2 divisions) and agglomeration size. International weighting (to calculate European averages) is based on official population statistics published by Eurostat or by national statistical institutes.

Figure 3), compared with 22.5 in the United Kingdom, 22.8 in Denmark, and as high as 23.4 in Greece.

For women the situation is slightly different. The ideal BMI is low for both men and women in France (19.5), while in Greece it is low for women (19.6) but the highest in Europe for men. By contrast, ideal female BMI is higher in the United Kingdom (20.4) and in Denmark (20.5).

The French would appear to have a lower ideal body fatness than their neighbours, perhaps reflecting stronger social norms governing desired body shape. Yet the British, who have the highest mean BMI, do not have the highest ideal weight. To understand attitudes to body weight and fatness in each European country, it is essential to take account of prevailing social norms, which differ for men and women. This dimension must be factored into public policies designed to combat obesity.

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ABSTRACT

Although average body fatness, measured by the body mass index (BMI) is 23.2 for French women and 26.2 for British women, their reported ideal weight is lower, standing at 19.5 in France and 20.7 in the United Kingdom. Underweight is more highly prized by French women than by women elsewhere in Europe. European women in general are more dissatisfied with their weight than men, for whom underweight has negative associations. In France, ideal male BMI is 22.0 (the level at which the proportion considering themselves overweight equals the proportion considering themselves underweight), compared with 22.5 in the United Kingdom, 22.8 in Denmark and as high as 23.4 in Greece.