

[1] The Mach 3 Razor is coloured predominantly black with grey moulded plastic on the handle. It has three stainless steel blades which are set into a detachable plastic head guard, which also features a coloured lubricant strip. The handle of the razor is ergonomically round and sized so that it can be easily held in the hand of the average male user. It is also made of durable metal. Most of each blade is guarded from contact with the user by the plastic head. The lubricant strip is imbued with a moisturising lubricant to help reduce friction while shaving. Overall the outcome is designed with elements reflecting priorities of safety, convenience, comfort and ease of use.



Having only the edge of the blades come in contact with the user makes the Mach 3 razor a type of safety razor. Safety razors were historically developed as an alternative to straight razors which consisted of a simple blade. One of the advantages of a safety razor is that it makes it much more difficult to suffer a serious injury. Even if the user makes a mistake, because most of the blade is guarded, only a minor cut will be sustained.

Early safety razors had only one blade, but the Mach 3 razor has three. The blades are made of stainless steel. Stainless steel is a good choice because it can be cleaned easily and is sharp enough to cut the hairs, as well as being light. Having three blades means that the user can cut off more hair with one stroke, which makes the process of shaving quicker. When the Mach 3 razor was first developed, most safety razors available on the market had only two blades at a maximum, so this design feature enhanced the Mach 3 razor's fitness for purpose. At the present time, however there are 4-bladed and 5-bladed razors on the market. A department store in the Netherlands even stocks a 6-bladed razor. The Mach 3 razor is therefore priced below these newer razors, representing a balance between performance and value, rather than simply prioritising performance.

The detachable head is an important design feature of the Mach 3 razor. As the razor is used, the edge of the blades becomes blunted through contact with hair. Over time this means that the blades become less effective, eventually becoming unusable – if the blades are not sharp enough to cleanly cut the hair, during use of the razor hairs are instead pulled out by friction which is painful for the user. However, this wear and tear does not affect the handle of the razor, which is made of sturdier material than the head. The handle is made of sturdier and more expensive material (usually stainless steel) than the blade guard because it is expected to last much longer. Having a detachable head is an advantage because when the blades become too blunt to be effective, only the head needs to be discarded.

The lubricating strip serves two purposes. Having lubricating fluid reduces friction between the blades and the skin which makes it less likely that the user will suffer minor cuts or the tearing (as opposed to the cutting) of hair. This is the primary function of the lubricating strip. A secondary function is that the lubricating strip is coloured – as the razor is used, the amount of lubricating fluid diminishes and the colour of the strip becomes less vivid. The amount of lubricating fluid is related to the level of protection that the lubricating strip offers, so the colour of the strip lets the user see how much protection remains at a glance. Additionally, the amount of lubricating fluid present when the razor is first used is set so that in normal use, the lubricating fluid will run out at approximately the same time that the blades become too blunt to use. The user may therefore avoid the possibility of using an uncomfortably dry and blunt razor by discarding the head when the lubricating strip loses its colour.

[2] The Gillette Venus razor is also a safety razor, with three stainless steel blades guarded by a plastic detachable head. The



handle of the Venus razor is made of translucent coloured plastic (the original is light blue) with a soft rubber grip towards the end of the handle. On the head of the razor are soft protective cushions to reduce friction. The handle is shaped to fit ergonomically into an average woman's hand.

Having a plastic handle means that the Venus razor is lighter and easier to hold. Plastic is also a good choice because the Venus razor is designed to be used in the shower – it therefore needs to be waterproof. The soft rubber at the end of the handle is intended to be easier to grip when it is wet.

Instead of a lubricating strip, which would be ineffective in the shower environment because the lubricant would all be washed away too easily, the head of the Venus razor features soft protective cushions. These serve a similar purpose to the lubricating strip on the Mach 3 razor by reducing friction and the likelihood of minor cuts.



In most respects the Venus razor is similar to the Mach 3 razor, but the differences in the design features are a reflection of both the different patterns of usage that are expected and also social factors relating to gender. In general terms, the two razors are almost interchangeable – a man could use a Venus razor and a woman could use a Mach 3 razor. However, various design elements have been prioritised differently and have therefore differentiated the two outcomes. The head of the Venus razor is larger and this might prove unwieldy if it was used to remove facial hair, but for the larger area of the legs, this is not a problem, and the designers have prioritised comfort over finesse.

[3] Fitness for purpose relates to both the social and physical environment of intended use. Some design choices have been made to promote greater fitness for purpose within the physical environment. In both of these two outcomes, these include the encasing of most of the blades in the plastic head, the detachability of the head, the number of blades, and the use of plastic/rubber grips.

One advantage of the safety razor is that it requires less skill to use. Use of a straight razor required better-than-average co-ordination. Most men therefore would go to a professional barber who would be skilled enough to use a straight razor, and historically women did not shave their legs. This design feature means that every man and woman can use a razor in their own home, which is much more convenient.

The detachability of the head reduces waste. This increases fitness for purpose in terms of environmental sustainability. Some other types of razor are wholly disposable, and do not feature a detachable head. Instead of being made of stainless steel, the handles of these wholly disposable razors are made of plastic, which is cheaper to produce, but can break more easily – increases risk of malfunction. Having a detachable head means that the manufacturer has prioritised durability ahead of production cost for the handle.

Both outcomes are intended for use in a physical environment that is likely to feature a lot of water. The Mach 3 razor therefore has moulded plastic grips, while the Venus razor has a softer rubber grip. Both of these design features aid fitness for purpose, and the choice of plastic and rubber for the Venus razor handle is a reflection of the fact that it is intended to be used in a shower environment.

With respect to the social environment, the two outcomes are distinguished by aesthetic design choices. “Mach 3 Turbo” is a name which evokes expensive and sophisticated technology, relating specifically to aircraft and speed. The user is thus encouraged to associate the specific outcome of the razor with other desirable and traditionally masculine outcomes such as fighter jets or racing cars. “Venus” is a reference to the goddess of love in Roman mythology, which relates to encouraging the user to associate the razor with notions of desirability and perfection.

The choice of colour is also significant – the light blue colour of the Venus razor is seen as traditionally feminine, rather than the more industrial black and grey of the Mach 3 razor. This is related to fitness for purpose within the social environment. The Mach 3 razor is designed to be used for the removal of facial hair, which is an almost exclusively male concern. The colours of black and grey are traditionally masculine, but a razor coloured light blue like the Venus razor has strong feminine connotations. Other razors made by Gillette for women are pink, or light green, which are more traditionally feminine colours. When a man is using a razor to remove facial hair, he is involved in a quintessentially masculine activity, and it is unlikely that a feminine coloured razor would sell well – even though in purely functional terms design choices around colour are not important at all. The same principle applies in reverse to the Venus razor.

It is interesting to note that these social considerations are quite arbitrary, particularly the association of some colours as masculine and others as feminine. Some of the design choices relate to the different intended functions of the two outcomes, but the choices relating to the social environment show a pre-occupation with notions of masculinity and femininity which are quite distinct from function. Both the removal of facial hair and the removal of leg hair are primarily aesthetic considerations. It is therefore unsurprising that the differing design options which separate the two outcomes are less to do with their functional nature and more to do with the way they will be perceived in their social environments.

Based on all of this both these razors could therefore be judged fit for purpose in terms of their intended physical and social location. Their combined physical and functional attributes – driven by the prioritisation of particular design elements allows for this to be so. However – it could also be argued that gender identity is more ‘plural’ than the somewhat stereotyped views underpinning the aesthetic considerations in particular.