# Fashion forward: Rethinking your wardrobe to protect the environment

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Credit: AI-generated image (disclaimer)

In 2022, luxury fashion brand Balenciaga sparked outrage when it released a distressed version of its Paris High Top Sneakers. The limited-edition line featured rips, scuffs and an overall 'dirty' appearance. The sneakers were called out online as "poverty-chic" and "beat-up Converse"; they retailed for $1850.

The controversy is perhaps unsurprising given the sneakers exemplify long-term conflicts within the fashion industry, says Associate Professor Alison Gwilt from UNSW Arts, Design & Architecture. "They're far from the first instance of distressed aesthetics in fashion—think everything from ripped jeans to the deconstructed designs of fashion mavericks Rei Kawakubo and Yohji Yamamoto," she says.

"But they illustrate the social exclusion of high fashion, the industry's wasteful relationship with resources and impacts on the environment, and ironically its promotion—and the arbitrary nature—of the 'new' that drives over-consumption."

Accepting that clothes can be damaged yet still "desirable" has positive environmental and social benefits, the fashion and textile designer and researcher says. "Celebrating the natural aging process of clothes could encourage us to keep our clothes for longer. This would also help alleviate stigma associated with worn clothing, extending its lifespan," she says.

"However, in the case of Balenciaga's sneakers brand new materials are damaged before the products have even been worn, both impacting the environment and weakening the material fibers. This contradicts the fashion industry's investments in cleaner technologies, more sustainable practices and business models."

## Shrinking a large environmental footprint

The fashion industry's environmental footprint remains significant. Its long supply chain—from agriculture and petrochemical production (fiber production) to manufacturing, logistics and retail—equates to substantial water, material, chemical and energy use.

Australians are the second largest consumers of textiles in the world

behind the US, purchasing more than double the global average; more than 90 percent of this is thrown out within 12 months. 6000kg of clothing and textiles are dumped in landfill every 10 minutes. Clothes take decades to degrade, emitting greenhouse gases in the process. With today's fashion brands producing almost twice the volume of clothes as before the year 2000, the problem is increasing exponentially.

Making simple changes to how we choose, use and maintain our clothes can assist with sustainability, A/Prof. Gwilt says. "Together with brands and manufacturers, we need to work towards a circular economy that eliminates waste, keeps products in use, and regenerates natural systems ."

## Fast fashion is not solely to blame

Fast fashion is often demonized for its impact on the environment: "These items may be viewed by the clothing user as disposable products, since they are cheaper to purchase and often made from poor-quality material. Normally fast fashion clothes are designed to be on-trend, which means that what is worn today may be considered unfashionable tomorrow. New products are constantly arriving in store to replace these outdated items."

However, fast fashion's accessibility makes an important social contribution, she says. "A lack of affordability shouldn't mean you can't take part in fashion. Fashion impacts people's lives; it gives confidence and dignity," she says. "Fashion should be enjoyed, but we need to do that in a system that benefits the environment as well as the people who work within the industry."

## A stitch in time can keep fashion out of landfill

While lower standards of production can make preserving these items more difficult, mindful care practices can prolong a fast fashion garment's life, she says. "All items, in fact, need preventative care and maintenance to keep them in use for as long as possible, but most people do not repair damaged clothes, beyond fixing hems or sewing on buttons," she says.

"We've become passive consumers. The appeal of new clothes often wins out over a lack of motivation, skill and time or the expense and effort of outsourcing clothes for repair. Yet most brands now provide some simple care instructions on their website, while others offer a repair program."

The value of clothing is often equated to its ability to retain its original state, she says. Laundry detergents, for example, trade on their ability to keep our colors bright and refresh our whites. Yet A/Prof. Gwilt's research has shown that laundering patterns are often driven by habit and convenience.

"Ordinarily people use just two or three different functions on the washing machine," she says. "We've become accustomed to washing our clothes more or less after every use. We ignore an individual garment's material laundering needs by mixing clothing together to wash them more often than necessary and typically at incorrect temperatures."

Equally tumble drying and ironing can damage certain fabrics, she says. "But usually, we all have a particular item of clothing that we wear often and it is generally something that we carefully maintain," she says.

"If we reflect on the items worn frequently, we can learn how our clothing care patterns can deviate from established rituals to more nuanced care. Maintaining clothes helps extend their lifespan. And if we maintain and use a garment for longer periods of time it can reduce the

environmental impacts associated with the production and consumption of clothes."

## Changing our consumption patterns to better support sustainability

The circular economy is driven to promote the transition to renewable energy and materials, rather than our current model that produces and consumes finite resources. "The circular economy functions through two cycles: a technical cycle that keeps products and materials in circulation through reuse, repair, remanufacture or recycling, and a biological cycle that returns biodegradable materials to the earth to regenerate nature," she says.

Natural fibers, such as pure cottons and linens, sit within the biological cycle, while "tricky" fabrics, such as polyester and other synthetic blends that don't break down, fall into the technical cycle. The resale, repurposing, swapping or donating of these items is another way to prolong their use.

Some fashion brands are also making changes to support a circular economy, says A/Prof. Gwilt. "The Swedish-based brand, Nudie Jeans, retails here in Australia and has been offering its customers a repair and reuse service for some time."

While designing specifically for the circular economy seems the obvious answer, for brands associated with low price points, the challenges are self-evident, she says. "Customers expect to buy items at a certain price, and this can promote the use of cheaper synthetic fabrics that don't biodegrade. Even those items made from natural fibers need careful consideration during production to ensure they meet the requirements in a biological cycle."

# New bio-fibers and compostable materials hold new hope

The development of innovative new fabrics that aim to replace resource-intensive natural fibers, and petroleum-based man-made fibers will also deliver more sustainable production, says A/Prof. Gwilt.

New fibers and materials have emerged from easy-to-grow crops such as hemp, and waste by-products from crops (bio-based fibers) such as pineapple (Piñatex), citrus fruits (Orange Fiber), milk (Qmilk), mushrooms (Mylo) and kelp extracted from seaweed (Algikit).

A/Prof. Gwilt is also consulting on the creation of a technical specification for compostable textiles for Standards Australia, the first of its kind globally. "Composting textiles doesn't require major technology breakthroughs or enormous investment or infrastructure, so it would constitute a relatively easy win for both clothing users and the environment," she says.

"What's exciting about this is that it could give greater insight for industry to start developing products that can break down safely in compostable systems. So we might start to see a move towards designing for the biological cycle, including fast-fashion items that can be composted."

The research is published in the journal *Continuum*.

**More information:** Alison Gwilt, Caring for clothes: how and why people maintain garments in regular use, *Continuum* (2021). DOI: 10.1080/10304312.2021.1993572