

GREATER RESPONSIBILITY IN LIEU OF “FAST FASHION”

Too much liberty to produce and consume will lead the human race to ruin; the clothing industry is unfortunately increasingly contributing to this – says **Magdalena Płonka** from the University of Economics and Human Sciences (AEH) in Warsaw.

How do the clothes we wear affect the natural environment?

MAGDALENA PŁONKA: Both producing new clothes and disposing of old ones contribute to environmental pollution. The fate of our clothes after we no longer use them is subject to little regulation. This is true for both used articles and also unsold clothes. They may end up in landfills together with general waste, or in second-hand shops or charity collection points. Clothes destined for landfills are often transported via container ship, the least environmentally friendly means of transport, to developing countries, where textiles are bought and disposed of in the simplest way

possible – by being burned. Exhaust emissions from the container ships and from the fires contribute to air pollution, and toxic compounds find their way into the soil and water through rainwater runoff.

That’s on the disposal side. How about the production of textiles?

To produce a regular T-shirt, we must first grow cotton, which demands significant amounts of water and chemicals. Most consumers don’t realize that before cotton can be harvested, all the green parts of the plants must be removed through a chemical process called defoliation. Consequently, only the cotton flow-



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ers remain, which are then harvested by a combine harvester in monoculture fields spanning across hectares. This aggressive method streamlines mass-production later on, because the cotton is less contaminated with green parts and so it can be harvested faster. In the next step, the cotton is bleached – chemically cleaned to remove any remaining cellulose. In addition, harvesting and treating the fibers consumes substantial energy, not only due to fuel consumption by the machinery, but also from transportation over long distances and carding at the factory. What’s more, even at the final stage of fabric processing, chemicals are used during the dyeing process, often involving treatments with formaldehyde. Despite being highly toxic and carcinogenic, formaldehyde remains approved for use in the clothing industry.

And so despite its reputation as a “natural” material, cotton is not actually so natural after all, is it?

At least half of the scholars who teach materials science worldwide do not realize that polyester and polyamide score much lower in terms of LCA (life cycle assessment) as compared to such popular natural fabrics as cotton, wool, leather, and silk. In fact, all these latter materials have drastically high environmental footprints, often several times greater than that of average synthetic fibers. In practice, producing a kilogram of cotton requires a lot more water, degrades more land, and generates more air pollution than producing a kilogram of polyester. While it is true that polyester is

derived from petroleum and resists biodegradation, it also aligns well with the circular economy policy, a recommended solution for modern economies in the future. Materials such as cotton, wool, silk, and leather are deliberately *greenwashed*, or misleadingly promoted as “natural” while concealing their true overall environmental impact, as is reflected in their LCA score. A fabric’s environmental impact is determined by its production process and functions, not merely by its biodegradability. Degradation is the final stage of a product’s lifecycle, whereas it is its original production that determines whether it is environmentally friendly or not. From the scientific standpoint, for example, the life-cycle environmental impact of polyester has an estimated LCA score of 14, compared with silk’s 68.

Another example can be found in the debate surrounding synthetic and natural fur. In the 1960s, the Ford Institute and the University of Michigan conducted a study comparing the impact of these two fur types. Their findings revealed that natural fur’s environmental impact was 20 to 60 times greater than that of synthetic fur. The calculations accounted for the environmental impact of the animals used in fur production, as well as all the associated services required to create the semi-finished products.

Does this mean that polyester is the material of the future?

It is indeed, according to Prof. Sandy Black, head of the Center for Sustainable Fashion at the London

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College of Fashion. And that's not just her opinion. The same conclusion has been reached by some of the most brilliant minds in the field. But polyester is just one solution. Synthetic materials such as Lyocell, Mushroom Leather, SeaCell, Naia, and many more have been created with sustainable fashion in mind. In an upcoming book, my co-author Ewa Polkowska and I explore this very topic. The book will be an encyclopedia of textiles that have advantages over traditional options such as cotton, wool, and leather. In addition to being good for humans and safe for the environment, these textiles open up many possibilities. We will also shed light on underrated natural fabrics, such as hemp fiber. Hemp has medicinal properties – soothing and calming qualities. Hemp fiber is also very durable, resistant to mold, and great at draining water. It's an excellent fabric, but it got pushed out of the market by cotton. There are many similar examples.

What is “fast fashion”?

The production and disposal of textiles are heavily underregulated fields. In practice, this means that clothes are often effectively treated as single-use products. The trend for “fast fashion” refers to the overproduction of low-quality clothes, which are so inexpensive that they are worn only a couple of times before they get discarded rather than washed. If a jacket costs \$10–15 to buy and about the same to wash, it becomes more economical just to buy a new one. However, this alarming situation results not only from bad regulations, but also from the prevailing culture of consumerism.

In countries facing rampant inflation, the practice of reselling clothes is gaining popularity, but unfortunately this, too, has little to do with sensible concern for the environment. In fact, reselling platforms have actually led to an increase in new clothing sales. Numerous reports and market research studies indicate that consumers use these platforms to clear their closets of old clothes, thereby creating space for new purchases. Unfortunately, therefore, this “decluttering” of wardrobes further fuels consumption and thus becomes part of greenwashing practices.

Ideally, how should recycling work?

In an ideal world, the responsibility for every product, such as a blouse, would lie entirely with the manufacturer, from the start to the end of the product's life. It should not shift the burden of responsibility for the product onto the consumer. Each garment should possess a unique code (or “passport”), which can be scanned and tracked. Once the garment has served its purpose, the consumer should return it to the company or pass it on to someone else, and this transaction should be recorded, too. Customers, too, should be more responsible for the items they buy. For

example, if you buy a couch, you should not be able to simply throw it away. You should be required to take it to a recycling facility, which would handle the safe disassembly of this couch or repurpose it.

Let's now consider the current situation and the existing system. Corporations relentlessly exploit natural resources for their profit, disregarding the Earth, which belongs to all of us and gives us everything good. What's more, they are dragging us into this act of degradation by promoting a consumerist lifestyle based on the need for more possessions. What we really need are durable clothes that embody beauty, uniqueness, and a certain social sense of responsibility, not "fast fashion" products that deteriorate after a few washes or quickly go out of style with quickly-changing trends. These corporations are not held accountable for the environmental crimes they commit. Holding them to account is only a matter of political will. We should immediately impose certain limits on consumer purchases, and introduce "passports" for various objects to ensure and enforce their transparent production and use.

Are you saying that we can only be saved by a strict eco-dictatorship?

In my opinion, this is just common sense and the only way for us to survive. Not everyone is knowledgeable about textile production, so those who are should be the ones to decide, to safeguard us all. The British scholar Jonathan Chapman has pointed out an apt metaphor for giving customers unrestricted choice: it's something like giving Ferraris to four-year-olds – a utopian vision of freedom and democracy. Let's



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be honest, not all of us are qualified enough to decide how goods should be produced and consumed or to fully grasp how our own unrestrained capitalism and compulsive shopping will affect our children.

Today, every business in the world is facing the challenge of conscious "degrowth" (an intentional reduction in global consumption and production). I believe that it is possible to protect both our planet and corporate welfare at the same time by significantly reducing the production of clothes and increasing the price. But that's a topic for another interview.

INTERVIEW BY JUSTYNA ORŁOWSKA, PHD



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