
When Consumer Citizens Spoke Up: West Germany's Early Dealings with Plastic Waste

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Abstract

At one time, plastics were claimed to be the material that would not only boost West Germany's economy but also its consumer democracy. However, in the 1970s plastics were redefined as an environmental and consumer hazard. Based on protest letters and other sources, this article explores why plastic came to be redefined and traces how it became an issue of public concern. Now, this iconic material had become symbolic once more, but for negative reasons. I argue that the issue of plastics gained considerable momentum due to their crucial role in creating modern mass consumption. I further argue that the shifting significance of plastics highlights a substantial change in West Germany's political culture. While the early social market economists based citizens' social belonging around access to economic security and affluence rather than overtly political notions of participation, people started insisting on the political aspects of their group identity as consumers; they defined both consumer information and protection as rights of citizenship.

Introduction

In the post-war Western world and beyond, plastics became hallmarks of mass culture and prosperity. Nylon featured as an icon of abundance in the United States thanks to its immediate mass cultural impact from 1940 onwards, when nationwide sales of

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This article builds on my book *Plastik und politische Kultur in Westdeutschland* (Zurich: Chronos, 2007). It takes into account new source material and develops further some ideas on consumer democracy outlined in the monograph. I thank the editors of this issue as well as two anonymous referees for encouraging me to do so and helping me work on the argument.

nylon stockings rocketed.¹ In contrast, mass prosperity in West Germany was based on polyvinyl chloride, better known as PVC or vinyl. Vinyl was the first fully synthetic thermoplastic produced by German industries and the most widely used in the Federal Republic of Germany (FRG) until the mid 1970s.² As research and development had already started in the inter-war years both in the USA and Germany, by 1945 vinyl was marketable. By providing infrastructural support and commodities, this material would bring an economic boom and significantly drive West Germany's consumer democracy. West Germans quickly incorporated vinyl and plastics in their everyday lives: per capita consumption of all plastics increased from 1.9 kg in 1950 to 15 kg in 1960, thus outstripping US per capita consumption of 6.4 kg in 1950 and 10.7 kg in 1960.³ Three industries used extruded or moulded vinyl and hard or soft vinyl foils: the building industry, mass consumer goods and packaging. Vinyl also went, less visibly, into electronics and cars. While these industries most conspicuously embodied the mass prosperity to come, they also represented the normality that found its expression in undamaged surfaces – in strong contrast to the rubble and destruction of war. Urban surfaces were increasingly made of thermoplastics: building facades, the quilted walls of cinemas, tablecloths, public transport upholstery, etc. These were examples of 'small consumption' already affordable for many and envisioning a full-blown prosperity yet to come.⁴ Items made of plastic started to fill the shelves; exhibitions displayed the near future of modern households where plastics would figure prominently.⁵ In short, thermoplastics were critical for reconstructing and furnishing West Germany's public and private spaces. Many surface applications that seemed to merely serve aesthetic needs were key technical features of mass consumption. Take plastic packaging, for instance, which in the second half of the twentieth century became the vital 'skin of commerce' (Gay Hawkins).⁶ Vinyl, in particular, enabled improved methods of logistics, storage, conservation and sales, thus helping to transform what self-service meant for retail. The plastic industry estimated that 360,000 tonnes had gone into

¹ Jeffrey L. Meikle, *American Plastic: A Cultural History* (New Brunswick, NJ: Rutgers University Press, 1995), 125–52.

² This was also true for the GDR, see Raymond Stokes, 'Plastics and the New Society: The German Democratic Republic in the 1950s and 1960s', in Susan Reid and David Crowley, eds, *Style and Socialism: Modernity and Material Culture in Post-War Eastern Europe* (Oxford and New York: Berg, 2000), 65–80.

³ Bryan G. Reuben and Michael L. Burstall, *The Chemical Economy: A Guide to the Technology and Economics of the Chemical Industry* (London: Prentice Hall Press, 1973), 35; for 1968: BA Koblenz B 106/25131 [BA is *Bundesarchiv*, Federal Archives] 'Höchster Kunststofftag', *VDI-Nachrichten* no. 44, 30 Oct. 1968, 5: 'PVC is the leading plastic in West Germany; its production has increased by 19% compared to 1966 and is at 487,000 tonnes. PVC is very closely followed by polyethylene production which has grown by 33% and comes to 454,000 tonnes.'

⁴ Paul Betts, 'The *Nierentisch* Nemesis: Organic Design as West German Pop Culture', *German History*, 19, 2 (2001), 185–217, 193, 199.

⁵ For instance, Hans Curjel, 'Zur Ausstellungstechnik der Documenta', *Baukunst und Werkform*, 12 (1955), 757–60; 'Haushaltsgeräte aus Kunststoff', *Die Frau und ihre Wohnung*, 3(1958), 17.

⁶ 'The skin of commerce: the role of plastic packaging in the construction of food security, waste and consumer activism in Australia', ARC Discovery Grant 2013–2016. Chief investigator: Gay Hawkins, partner investigator: Andrea Westermann.

the packaging sector in 1969; the estimations for 1972 were already much higher, namely 969,000 tonnes.⁷

Yet vinyl and other thermoplastics did more than contribute to West Germany's material reconstruction. They also gave cause to re-evaluate the very foundations of its consumption-based political culture. The 1970s saw plastics being redefined as an environmental hazard associated first with growing amounts of plastic waste. Only a few months later, occupational diseases were discovered in companies producing vinyl. Against this backdrop, concerned citizens singled out vinyl as a potential consumer health hazard, too. The article traces this redefinition of plastic and how plastic waste became an issue of public concern. What capacities did citizens have for lending legitimacy to their cause?⁸ This question guides my analysis of a collection of letters from citizens to the Ministry of the Interior in response to the government's 1971 'Environmental Programme'. It listed plastic waste among the ten targets demanding immediate regulation. My analysis includes other source material relating to the health hazards of vinyl chloride.

I argue that the shifting significance of plastics accounts for a substantial change in West German political culture. While the early proponents of a social market economy had based their citizens' social belonging around access to economic security and affluence rather than around overtly political notions of participation, people started to actively politicise their role as consumer-citizens. They defined consumer information and protection as a right of citizenship. This shift was not just brought about by the unintended consequences of plastic consumption. Rather the issue swayed opinions; plastics, once an emblem of modern mass consumption, now turned out to be equally emblematic of the negative consequences of mass consumption. Politicisation from 'below' drove the state to assume responsibility for product risks and information by the early 1970s. The new consumerist activism was, in turn, fuelled by the emerging politico-legal framework: while in the first two decades of the Federal Republic, twenty-five laws relating to consumer issues were adopted, the period between 1970 and 1978 saw 313 new laws coming into force.⁹ Consumer-related regulations overlapped with regulations in the field of

⁷ BA Koblenz B 106/25131 Niederschrift über die Besprechung am 2. Juli 1969 im BM für Gesundheitswesen in Bad Godesberg, statement of the chemical industry, Anlage 1; Klaus Stoeckert, 'Der Markt für Kunststoff-Verpackungen in der BRD', *Kunststoffe*, 65, 4 (1975), 241. According to an industry newsletter quoted in Heinz Schmidt-Bachem, *Tüten, Beutel, Tragetaschen: Zur Geschichte der Papier, Pappe und Folien verarbeitenden Industrie in Deutschland* (Munster and New York: Waxmann, 2001), 240, every West German used 20 plastic bags in 1971. On the history of plastic packaging in an environmental and cultural history perspective, see Matthias Nast, *Die stummen Verkäufer: Lebensmittelverpackungen im Zeitalter der Konsumgesellschaft: Umwelthistorische Untersuchung über die Entwicklung der Warenpackung und den Wandel der Einkaufsgewohnheiten* (Berne and Berlin: Lang, 1997); Hans-Jürgen Teuteberg, 'Die Rationalisierung der Warenpackung durch das Eindringen der Kunststoffe und die Folgen', *Environmental History Newsletter*, Special Issue 2 (1995), 112–48.

⁸ My analysis is informed by Luc Boltanski, with Y. Darré and M-A. Schiltz, 'La dénonciation', *Actes de la recherche en sciences sociales*, 51 (1984), 3–40; Luc Boltanski and Laurent Thévenot, 'The Sociology of Critical Capacity', *European Journal of Social Theory*, 2, 3 (1999), 359–77.

⁹ Gunnar Trumbull, *Consumer Capitalism: Politics, Product Markets, and Firm Strategy in France and Germany* (Ithaca and London: Cornell University Press, 2006), 8–9. Traditionally, producers had provided such

environmental protection. The final section of this article explores the Ministry of the Interior's attempt to prevent the introduction of non-returnable plastic beverage containers in order to cope with the growing quantities of plastic waste and thereby address the public's vocal opposition to plastic waste. These regulatory attempts also sought to align the plastic and soft drink industries with the recycling system in place: the multiple use of (glass) bottles.

Plastic waste and the making of a 'consumer-recycler citizenship'

The special issue explores the advent of a 'consumer-recycler citizenship'. Ruth Oldenziel and Heike Weber have identified conjectures of thrift and abundance that accompanied modern mass consumption over the nineteenth and twentieth centuries. They assert that, starting in the 1970s, consumers all over Europe recalled traditional practices of collecting and reusing materials, while at the same time shifting their reasons for doing so. Recycling was promoted as an ecological duty.

How does the history of West German plastic and plastic waste fit into this interpretation? For one thing, plastics as we know them today corroborate the idea that modern mass consumption began in the late nineteenth century. Celluloid and its successor 'surrogates' were introduced from the 1870s onwards. Using them lowered the production costs of desirable commodities and expensive materials such as wood or ivory scrimshaw. Traditional luxury goods became affordable for the masses.¹⁰ Yet Jeffrey Meikle has stressed for nylon what is certainly true for vinyl and many other types of plastic: they have two faces, 'light-hearted aesthetic indulgence' on the one hand and 'tough functional seriousness' on the other. Both characteristics underpinned the creation of modern mass culture.¹¹

The cultural history of plastics also helps explain why West Germany's consumer culture was gradually re-evaluated during the late 1960s and 1970s, in an articulate mood of environmental concern. Plastics became a byword for the downside of affluent society because these synthetic materials embodied three critiques of mass consumption. First, their image of shoddiness, falsity and veneer hinted at the superficiality of mass culture;¹² second, their enduring presence made tangible the practical problems that a massive discarding of short-lived commodities entailed; and third, their chemical composition revealed the unintended consequences of modern science and technology such as non-biodegradability and health hazards. It is interesting to note that, as a result, in the early stages of the plastic waste debate, people did not consider recycling an appropriate, sufficiently radical measure

product information, see Trumbull, *Consumer Capitalism*, 7: 'Strong brands, combined with the product-specific advertising campaigns, helped to reassure the consumers.'

¹⁰ Theodor Koller, *Die Surrogate: Ihre Darstellungen im Kleinen und deren fabrikmäßige Erzeugung: Ein Handbuch der Herstellung der künstlichen Ersatzstoffe für den praktischen Gebrauch von Industriellen und Technikern* (Frankfurt: Bechthold, 1893), VII. See also Robert Friedel, *Pioneer Plastic: The Making and Selling of Celluloid* (Madison, Wis.: University of Wisconsin Press, 1983).

¹¹ Meikle, *American Plastic*, 126.

¹² Andrea Westermann, 'Die Oberflächlichkeit der Massenkultur: Plastik und die Verbraucherdemokratisierung der Bundesrepublik', *Historische Anthropologie*, 16, 1 (2008), 8–30.

to cope with plastic waste. In the early and mid 1970s, when women activists in the Netherlands advocated placing glass recycling bins in neighbourhoods,¹³ activist consumers preferred plastic avoidance over plastic recycling. Recycling was the technical solution proposed by government and industry instead.

On two points, my case study differs from the special issue's overall narrative or rather adds historical variation. Modern plastics never implied thrift but were always on the side of abundance. Even during the National Socialist economy of war and autarky, when new plastics like vinyl were promoted as *ersatz* or substitute, they represented a systematic and continuous extension of material resources based on abundant supplies of coal and on scientific progress.¹⁴ Thermoplastics were the 'better' *ersatz* materials, so to speak, opening up new ways of production and consumption, whereas *ersatz* measures enforced by National Socialists like scrap recycling or long-term planning of raw material supplies resonated with the more traditional practices of thrift. If consumers from the 1930s to the 1950s complained about 'lack' with respect to plastics, it was a lack in quality, owing, industry hastened to add, to the early stages of research and too quick an introduction to the mass market.

Other concepts may explain the emergence of the critical consumer and consumer-recycler besides thrift and abundance. For historicising the debate on plastic consumption and waste, I have found it particularly useful to look at the scientific side of synthetics. Whenever people or state authorities raised the issue of plastics they did so by foregrounding both the positive and, in the 1970s and 1980s, even more the negative, implications of science and techno-scientific artefacts. As for the problematic aspects of plastics and plastic waste, consumers consistently emphasised the difficulty of getting the product information they needed to make an informed choice in the market place. For West Germany, this line of argument became decisive, as I will explain in the following section.

West Germany's consumer democracy

Matthew Hilton has argued that 'in the twentieth century, consumption became a political project intimately bound up with the state' and that, by the 1950s, 'governments across the world worked to promote a vision of consumer society based around access and participation – affluence for all – rather than choice and luxury for the few'.¹⁵ Following this trend, the West German state sought to achieve social coherence and gain the loyalty of its citizens by promising mass consumption and individual prosperity. Under the auspices of the Allied powers and the US European Recovery Program in particular, West Germany created its own version

¹³ Ruth Oldenziel and Milena Veenis, 'The Glass Recycling Container in the Netherlands: Symbol in Times of Scarcity and Abundance, 1939–1978', in this issue.

¹⁴ Andrea Westermann, 'The material politics of vinyl: How the state, industry and citizens created and transformed West Germany's consumer democracy', in Jennifer Gabrys, Gay Hawkins and Mike Michael, eds, *Accumulation: The Material Politics of Plastic* (London: Routledge, 2013), 70–3.

¹⁵ Matthew Hilton, 'Consumers and the State since the Second World War', *Annals of the American Academy of Political and Social Science*, 611 (2007), 66–81, 66.

of liberal democracy. Based on the social market economy, it offered its citizens a form of social inclusion that was not overtly political but sought to give an economic connotation to the democratic principles of individual participation in society and electoral freedom.¹⁶ Citizens were perceived as consumer citizens who would engage in the sphere of consumption rather than in the political arena. Time and time again, texts promoting the social market economy asserted that ‘democracy and free economy went together naturally’.¹⁷ Ludwig Erhard famously claimed ‘the consumer’s fundamental right to freedom of choice’ (*Grundrecht der Konsumfreiheit*).¹⁸ In 1956, Alfred Müller-Armack, who coined the concept *soziale Marktwirtschaft* (social market economy), explained that the programme combined elements of economic and social theory and would, ‘through further expansion, raise the standard of living of all social groups’.¹⁹ Purchasing power and consumption made almost everybody feel as if he or she ‘was already sharing in the abundance and luxury of the everyday: most importantly, participation is considered a civil right’, sociologist Helmut Schelsky argued in the mid 1950s.²⁰ To the proponents of consumer citizenship, the very exchange of commodities served as a vehicle of inclusion. Advocates of mass prosperity perceived this form of affiliation as a sorely needed objectification (*Versachlichung*) of political belonging.²¹ They believed that the emerging West German consumer-democratic culture differed, as it should, from the stridently politicised ideal of the National Socialist ‘people’s community’ (*Völksgemeinschaft*).

The way in which consumer interests were represented in the early years of the Federal Republic fits into the larger picture that West Germans had of their relatively

¹⁶ Important for the period under consideration and my argument of repoliticisation is Albert O. Hirschman, *Shifting Involvements: Private Interest and Public Action* (Princeton, NJ: Princeton University Press, 1982), who early on used the notion of consumer citizen. Hirschman argues that people who have disappointing consumption experiences are likely to be recruited for citizen initiatives. Erica Carter, *How German Is She? Postwar West German Reconstruction and the Consuming Woman* (Ann Arbor: University of Michigan Press, 1997), 24, introduced the notions consumer citizen and consumer democracy to the analysis of the history of post-war West Germany; see also Trumbull, *Consumer Capitalism*, 8–15; Katherine Pence, ‘Shopping for an “Economic Miracle”: Gendered Politics of Consumer Citizenship in Divided Germany’, in Alain Chatriot, Marie-Emmanuelle Chessel and Matthew Hilton, eds, *The Expert Consumer: Associations and Professionals in Consumer Society* (Aldershot: Ashgate), 105–20.

¹⁷ Bernhard Löffler, *Soziale Marktwirtschaft und administrative Praxis: Das Bundeswirtschaftsministerium unter Ludwig Erhard* (Stuttgart: Steiner, 2002), 576.

¹⁸ Ludolf Herbst, ‘Krisenüberwindung und Wirtschaftsordnung: Ludwig Erhards Beteiligung an den Nachkriegsplanungen am Ende des Zweiten Weltkrieges’, *Vierteljahrshefte für Zeitgeschichte*, 25 (1977), 316, 320; Ludwig Erhard, *Wohlstand für alle* (Dusseldorf: Econ, 1957), 14; Westermann, *Plastik*, 7–18.

¹⁹ Alfred Müller-Armack, *Soziale Marktwirtschaft. Handwörterbuch der Sozialwissenschaften*, Bd. 9 (Stuttgart: Fischer, 1956), 392.

²⁰ Helmut Schelsky, ‘Gesellschaftlicher Wandel’, in *Auf der Suche nach Wirklichkeit: Gesammelte Aufsätze* (Dusseldorf and Cologne: Diederichs, 1956/1961; citations from 2nd edn, 1965), 340.

²¹ René König, ‘Gestaltungsprobleme der Massengesellschaft’, in *Soziologische Orientierungen: Vorträge und Aufsätze* (Cologne and Berlin: Kiepenheuer and Witsch, 1959; citations from 2nd edn, 1965), 468; René König, ‘Masse und Vermassung’, in *Soziologische Orientierungen* (Cologne and Berlin: Kiepenheuer and Witsch, 1956; citations from 2nd edn, 1965), 485.

depoliticised course of collective action.²² Everhard Holtmann has demonstrated in his analysis of the post-war political culture of municipalities that choosing problem-solving over political (in other words ideological) preferences usually legitimised co-operation and decision-taking. To many people, acting responsibly amounted to pursuing pragmatic ‘non-politics’.²³ Gunnar Trumbull has shown that ‘the political incorporation of the consumer as a new category of citizenship’ worked in similar ways. West German consumer-citizens were considered not so much a political group as market participants.²⁴ It is true that there had been consumer activism and grass-root protests in the immediate post-war period. Hungry consumers protested in the winter of 1946/47 and shoppers demanded fairer prices in the wake of the currency reform in the Western occupation zones and throughout the early 1950s.²⁵ Arguably, these experiences further encouraged the government to think of a less politicised role for its consumer citizens. Demanding ‘that shoppers participate responsibly’²⁶ in the creation and distribution of affluence, the West German state organised the representation, education and protection of consumer-citizens within state agencies and relied on government-sponsored associations representing traditional identities and interests. The quasi-governmental consumer organisation *Arbeitsgemeinschaft der Verbraucherverbände* was founded in 1953 and comprised, among other groups, housing co-operatives, the German Federation of Housewives’ Associations and farmers’ associations. The government also became active in establishing consumer advice centres. Consumer sociologists called both forms of organisation ‘Verbraucherfremdorganisationen’ (consumer support organisations), a term they created to indicate the weak degree of or absence of activist self-organisation within these expert networks.²⁷

As a rule, German consumer groups of the 1950s and 1960s did not seek to mobilise consumers. ‘They measured their success not in terms of their weight as a political force, but instead in terms of their expertise and their access to government

²² Government politics met West Germany’s post-war preferences: Anna J. Merritt and Richard L. Merritt, *Public Opinion in Occupied Germany: The OMGUS Surveys 1945–1949* (Urbana, Ill.: University of Illinois Press, 1970), 41; Dieter Grosser, Stephan Bierling and Beate Neuss, *Bundesrepublik und DDR 1969–1990 [Deutsche Geschichte in Darstellungen und Quellen, Vol. 11]* (Stuttgart: Reclam, 1996), 97. On the conspicuous pragmatism of West German post-war politics, see Axel Schildt, ‘Materieller Wohlstand – pragmatische Politik – kulturelle Umbrüche’, in Axel Schildt, Carl-Christian Lammers and Detlev Siegfried, eds, *Dynamische Zeiten: Die 60er Jahre in den beiden deutschen Gesellschaften* (Hamburg: Christians, 2000), 21–53.

²³ Everhard Holtmann, *Politik und Nichtpolitik: Lokale Erscheinungsformen politischer Kultur im frühen Nachkriegsdeutschland: Das Beispiel Unna und Kamen* (Opladen: Westdeutscher Verlag, 1989).

²⁴ Trumbull, *Consumer Capitalism*, 30–2 and 55ff.

²⁵ Christoph Kleßmann and Peter Friedemann, *Streiks und Hungermärsche im Ruhrgebiet 1946–1948* (Frankfurt am Main: Campus, 1977); Pence, ‘Shopping’, 108 and 111.

²⁶ Pence, ‘Shopping’, 105.

²⁷ Arbeitsgruppe für Verbraucherforschung und Verbraucherpolitik, *Verbraucherverein als Form der Selbstorganisation von Verbrauchern in der Bundesrepublik Deutschland* (Düsseldorf: no publisher, 1979), 1–6; see Jürgen Bornecke, *Handbuch der Verbraucherinstitutionen* (Höxter: Verlag Information für die Wirtschaft, 1982), 56ff. for the *Arbeitsgemeinschaft der Verbraucherverbände* and 200ff. for the close personal networks between the 13 state-sponsored consumer organisations; Pence, ‘Shopping’, 111 emphasises the paternalistic tones in Ludwig Erhard’s addressing housewives as expert consumers.

and business decision-making.²⁸ Unlike in the USA, where a number of best-selling books by authors such as John Kenneth Galbraith or Vance Packard ‘transformed the discussion of American affluence’ in the late 1950s, and Rachel Carson’s *Silent Spring* of 1962 helped launch the modern consumer and environmental movements, no consumerist movement in West Germany before 1970 was comparable to César Chavez’s consumer boycott in support of union organising in 1965 or Ralph Nader’s lobbying in the same year.²⁹ There was one exception: the campaign to raise awareness of the health hazards of the agent thalidomide in unborn children. Thalidomide was the active substance contained in the sleeping pill Contergan. The scandal stirred up by Contergan certainly helped to define the legal and political ways in which concerned consumers would build a legitimate case against industry and force the West German government to act on their behalf.³⁰

As for the larger historical context, several events and trends predated, and arguably prefigured, consumer activism in West Germany. People had long worried about the negative health effects of everyday chemical commodities such as food additives or even plastics.³¹ The modern history of critical consumers in Germany had its roots in the life reform groups at the turn of the twentieth century, fostered in the 1920s and 1930s by early discussions on cancer as a disease of civilisation. These close-knit groups, overlapping in part, persisted throughout the post-war years and were firmly linked to professional circles of physicians, biologists or the association of health food shops (*Reformhäuser*). Despite being of a conservative stamp, they were ready for mobilisation and coalition building once ‘New Left’ citizen initiatives started to form around local environmental or health hazards in the early 1970s.³² It is also important to note that on the issues of food safety and fraud, not only consumers and scientists but also the state had long intervened in the market.³³ These precedents notwithstanding, consumer sociologist Gerhard Scherhorn summarised in his study for the Ministry of Economic Affairs in 1972 on consumer power that up until recently consumers had been slow in reacting to higher prices or disappointment in product quality. They had seldom rejected weak products in favour of competing products

²⁸ Trumbull, *Consumer Capitalism*, 30.

²⁹ Daniel Horowitz, *The Anxieties of Affluence: Critiques of American Consumer Culture, 1939–1979* (Amherst and Boston: University of Massachusetts Press, 2004), 101 and 159–202.

³⁰ See Willibald Steinmetz, ‘Ungewollte Politisierung durch die Medien? Die Contergan-Affaire’, in Bernd Weisbrod, ed., *Die Politik der Öffentlichkeit – Die Öffentlichkeit der Politik: Politische Medialisierung in der Geschichte der Bundesrepublik* (Göttingen: Wallstein, 2003), 195–228.

³¹ Westermann, *Plastik*, 295–6.

³² Robert Proctor, *The Nazi War on Cancer* (Princeton, NJ: Princeton University Press, 1999); Westermann, *Plastik*, 307–10; Heiko Stoff, ‘Hexa-Sabbat: Fremdstoffe und Vitalstoffe, Experten und der kritische Verbraucher in der BRD der 1950er und 1960er Jahre’, *NTM: Zeitschrift für Geschichte der Wissenschaft, Technik und Medizin*, 17, 1(2009), 55–83.

³³ Vera Hierholzer, ‘Food security and safety’, in Martin Bruegel, ed., *A Cultural History of Food in the Age of Empire (1800–1900)* [*A Cultural History of Food*, Vol. 5] (London and New York: Berg, 2011), 67–86; Vera Hierholzer, ‘The “War against Food Adulteration”: Municipal Food Monitoring and Citizen Self-Help Associations in Germany, 1870s–1880s’, in Peter J. Atkins, Peter Lummel and Derek J. Oddy, eds, *Food and the City in Europe since 1800* (Farnham and Burlington: Ashgate, 2007), 117–30.

or complained publicly.³⁴ Scherhorn's study testified to a renewed state interest in assessing the individual consumer's role. In 1971, the government published its 'First Report on Consumer Politics'.³⁵ Around the same time, citizen initiatives emerged at the intersection of consumer protection and environmental or occupational health issues. These initiatives re-opened the question of political participation. As my source material suggests, not only citizen organisations but also individuals insisted on their political power as consumers, seeking to reconceptualise the government's notion of consumer-citizens announced in the 1950s.

Letter writing: voicing critique as a form of action

From the late 1960s onwards, the optimistic vision of collective abundance receded behind the scenario of a 'landscape soon overflowing in every nook and cranny with litter and rubbish'.³⁶ Synthetics, those 'almost non-biodegradable materials', were at the heart of the dystopian vision, common throughout the 1970s and 1980s, that society would 'be faced with huge piles of waste in a hundred years' time'.³⁷ People tended to relate the issue of accumulating waste with plastic consumption; by pointing at packaging and non-returnable bottles, they regularly if implicitly referred to plastic. One woman explained in her letter to the Minister of Health, Käte Strobel: 'Those piles of rubbish are, in part, caused by the many plastic bottles, which are not only ugly because they are dust traps but are also littering the lakes without ever degrading.'³⁸ Both issues nearly became identical as in Hans Reimer's 1971 book *The Earth – A Planet of Rubbish (Müllplanet Erde)*: 'Fighting waste amounts to either fighting the excesses of plastic consumption or fighting specific characteristics of plastics.'³⁹ Between 1970 and 1972, letters from citizens flooded in on an unprecedented scale to the Ministry of the Interior dealing with environmental issues at the time.⁴⁰ People were responding to the environmental programme the Social Democrat and Liberal coalition government had announced in 1969 and published in 1971.⁴¹ After twenty years in power, the Christian Democratic Union had been voted out of

³⁴ Gerhard Scherhorn, *Gesucht: Der mündige Verbraucher: Grundlagen eines verbraucherpolitischen Bildungs- und Informationssystems* (Dusseldorf: Droste Verlag, 1973), 9–15, 47–8 and 61–2.

³⁵ Trumbull, *Consumer Capitalism*, 10.

³⁶ Bundesarchiv (BA) Koblenz B 106/25129, Architekt Max S. an Bundesinnenminister Genscher, Berg, 18 June 1970.

³⁷ As portrayed by Baden-Baden's municipal planning control officer Hans Straub, a pioneer of waste management and director of the Working Group on Waste Management AfA, BA Koblenz B 106/25131, Niederschrift über die Besprechung am 2. Juli 1969 im Bundesministerium für Gesundheitswesen in Bad Godesberg, 4.

³⁸ BA Koblenz B 106/25523, Dorothea B., Rüdesheim 14 Apr. 1971 an Frau Käte Strobel, Ministerin für Gesundheitswesen, Betr. Vorschläge für die Beseitigung der Umweltverschmutzung.

³⁹ Hans Reimer, *Müllplanet Erde* (Hamburg: Hoffmann and Campe, 1971), 62.

⁴⁰ Kai F. Hütemörder, *Die Frühgeschichte der globalen Umweltkrise und die Formierung der deutschen Umweltpolitik (1950–1973)* (Stuttgart: Steiner, 2004), 163, 167, 174.

⁴¹ Jens Ivo Engels, *Naturpolitik in der Bundesrepublik: Ideenwelt und politische Verhaltensstile in Naturschutz und Umweltbewegung 1950–1980* (Paderborn: Schoeningh, 2006), 286–7; Günter Küppers, Peter Lundgreen and Peter Weingart, *Umweltforschung: Die gesteuerte Wissenschaft?* (Frankfurt: Suhrkamp, 1978), 122–80;

office in 1969. The environmental programme was the coalition's pioneering effort to integrate environmental protection into policymaking and address the regulation of plastic waste. Arguably, people felt compelled to speak out on environmental issues, having been confronted with the growing media coverage of both the programme and the problems it targeted.

All in all, the Ministry of the Interior's archives contain between 400 and 500 letters relating to environmental issues, about 70 of them referring exclusively to plastic packaging and waste or describing plastic waste as just one striking example of environmental pollution. Besides this collection, many more letters to state authorities later on in the 1970s demonstrated West Germans' heightened awareness of synthetics and their discontents. The fact that many people felt the need to voice their concerns highlighted the politicisation of the issue. In order to be heard by the authorities, the writers justified themselves by linking their critique to various shared or common values; in doing so, they created a catalogue of arguments that testified to a renewed sense of political engagement.

The first group of correspondents simply wanted people to speak up. This disrupted the image of West Germans' retreat into privacy fostered by the social market economy programme and observed by contemporaries and historians of post-war West Germany alike.⁴² The correspondents urged more consumers to make their voices heard: 'It only takes a little commitment; everyone should exercise their right to contact politicians and insist on a response to their concerns or write to newspaper editors.'⁴³ The citizens gave as their reason for writing the urgency of what they felt was an immediate environmental crisis. Many indicated their professional background, thus backing their warnings and requests with authority:

As a group of citizens [there were 37 signatures, A. W.] – mostly scientists, engineers and educators – we consider it our duty to indicate that our present behaviour will cause, sooner or later, life-threatening danger to our natural environment . . . We think natural resources are being wasted pointlessly . . . The public must be made aware that recycling of materials has to replace the 'ideology of disposability'.⁴⁴

Others acted as spokesperson for (many) others. Pupil Volker B. sent in a list of hundreds of signatures appended to his letter:

for an inspiring analysis of the Environmental Programme, see Peter Weingart, *Wissensproduktion und soziale Struktur* (Frankfurt: Suhrkamp, 1976), 166–204.

⁴² John Herz, 'German Officialdom Revisited: Political Views and Attitudes of the West German Civil Service', *World Politics*, 7, 1 (1954), 76; Helmut Schelsky, *Wandlungen der deutschen Familie in der Gegenwart: Darstellung und Deutung einer empirisch-soziologischen Tatbestandsaufnahme* (Dortmund: Ardey, 1953), 63, 75, 94–5; Axel Schildt, *Die Sozialgeschichte der Bundesrepublik Deutschland bis 1989/90* (Munich: Oldenbourg, 2007), 11, 27.

⁴³ BA Koblenz, B 106/25190, Deutsche Wanderjugend Arbeitsgemeinschaft NRW Hagen, 3. Feb. 1971 Pressemitteilung, 4–5.

⁴⁴ BA Koblenz B 106/25526, Doris Lauterbach MdB, 29 Feb. 1972 forwarded the letter in question; quotes, 1 and 4.

We protest against the ever-increasing pollution of the environment and the deterioration of the living conditions of men, animals, and plants due to emissions by cars, industrial waste, and affluent society's non-degradable waste (plastic packages, throwaway bottles etc).⁴⁵

Some commented matter-of-factly:

I wish to address the issue of environmental protection. We are all well aware that stronger protection of the environment is required in order to avoid risks to human health. Affluent society's waste is already an international problem due to the contamination of water, soil, and air. The advantage of the non-degradability of plastics has turned out to be a huge drawback when it comes to waste management.⁴⁶

Outright desperation resonated from some letters: 'When the first company started to dump its waste into the river Rhine, when the first plastic bag was hung on the market stall, someone should have said STOP.'⁴⁷ Desperation found an outlet in sarcasm. Richard S. from Dörnigheim designed the flyer of a fictional 'Association for the promotion of increasing waste': 'THANKS for supporting our association by your enthusiastic use of PLASTIC BAGS, PLASTIC BOTTLES and PACKAGING.'⁴⁸ Some people scolded the government for perceived inactivity: 'We want to know why so called non-returnable bottles and cans are not banned, as in some Nordic countries?' In contrast, Hanna W. from Coburg agreed wholeheartedly with the appearance of the Minister of the Interior, Hans-Dietrich Genscher, on television. He had motivated her, she wrote, to take action: 'At my grocer's, I have already suggested that plastic bags are not given away so thoughtlessly.'⁴⁹

Private protest: renunciation

A second category of letters illustrated a tone of commitment and engagement; the authors did not adhere to the post-war habit of non-ideological and sober rhetoric.⁵⁰ Driven by the conviction that the top priority should be saving society and/or the earth from a state of emergency, people of all milieus repeatedly committed themselves to the environmental cause by making vows or establishing commandments. Given the normative and formal aspects of such texts, one is tempted to view them as a distinct genre, a political confession. Take, for instance, the suggestions a member of the Free Democratic Party made to Hans-Dietrich Genscher:

To help mitigate the present problems, I am pleased to send you personally a document that could be enclosed in newspapers or mailed to every household.

⁴⁵ BA Koblenz B 106/25529, Volker B., Brunswick (Braunschweig), 21 May 1971.

⁴⁶ BA Koblenz B 106/25528, Albert F., Doggendorf, 1 May 71.

⁴⁷ BA Koblenz B 106/25529 Dipl. Kfm. Karl B., Heepen, 22 January 72.

⁴⁸ BA Koblenz B 106/ 25191, Richard S., Dörnigheim am Main, 21 Mar. 1972.

⁴⁹ BA Koblenz B 106/25529, Hanna W., Coburg, 30 May 72.

⁵⁰ A rather pathetic version of this rhetoric of sobriety had also existed among the technical and economic elite, see Herz, 'German Officialdom Revisited', 66; Norbert Frei, *Adenauer's Germany and the Nazi Past: The Politics of Amnesty and Integration* (New York: Columbia University Press, 2002), 61, 65; Westermann, *Plastik*, 90–5; for this long-standing attitude, see Helmuth Lethen, *Cool Conduct: The Culture of Distance in Weimar Germany* (Berkeley: University of California Press, 2002).

In my fight against the pollution of the environment, I solemnly promise, as an individual within a community of socially conscious democrats, the following 10 points:

I solemnly promise I shall not litter the lovely German forests.

I solemnly promise I shall use only my shopping bag in order to avoid the supermarket's plastic bags that produce noxious fumes in incinerating plants.⁵¹

Such declarations emphasised their authors' political commitment and demonstrated their willingness to publicly embrace principles that should guide individual *and*, ideally, collective action.⁵² The deputy head of the Ministry of Interior's Department U (U for *Umwelt* or environment), Peter Menke-Glückert, had felt compelled, when still an Organization for Economic Cooperation and Development (OECD) employee, to compile 'Eco-Commandments for world citizens', intended as a working-paper for the 1968 UNESCO conference Man and the Biosphere. He, like many others, highlighted packaging as the most visible and therefore urgent waste problem:

FOURTH COMMANDMENT - DO NOT POLLUTE

Avoid polluting water, air, and soil by cutting down on the use of your car, refusing any unnecessary packaging material, by not wasting water or energy.⁵³

The capacity to prompt moral judgments applied to waste in general; to most letter writers, any kind of waste that littered the landscape indicated the excesses of consumption. Social studies sensitive to the materiality of social interaction have provided good explanations for this: they identify waste as being closely linked to the idea of social disorder, a view supported by anthropologist Mary Douglas's classic phrase 'dirt is material out of place'.⁵⁴ The semantic thread of 'disorder' weighed strongly in the German-speaking context because *Abfall* (waste) had the primary connotation of religious dissent, that is of 'renouncing one's faith' (falling away).⁵⁵ This meaning continued to resonate, encouraging the quasi-religious tone of many correspondents.

The potential to evoke people's sense of morality multiplied when it came to plastic waste. Fears of the environmental hazards plastics might cause added to a more

⁵¹ BA Koblenz B 106/ 25527, Rudolf B. from 6078 Neu Isenburg 19 Oct. 1971, letter to the Minister of the Interior, Hans-Dietrich Genscher (a fellow party member).

⁵² See also BA Koblenz B 106/25524, 3581, 3 Mar. 1971, Roland D., who compiled the 'Ungedankener principles' (Ungedankener Leitsätze) '2. Abbau der Müllkippen durch Eindämmen der Verpackungsmaterialien'.

⁵³ Peter Menke-Glückert, 'Eco-Commandments for world citizens' (1968), reprinted in Hünemörder, *Frühgeschichte*, 413–15.

⁵⁴ Mary Douglas, *Purity and Danger: An Analysis of Concepts of Pollution and Taboo* (London: Routledge, 1966; citations from 2nd edn, 2002); Theodor Bardmann, *Wenn aus Arbeit Abfall wird: Aufbau und Abbau organisatorischer Realitäten* (Frankfurt: Suhrkamp, 1994); Reiner Keller, *Müll – Die gesellschaftliche Konstruktion des Wertvollen: Die öffentliche Diskussion über Abfall in Deutschland und Frankreich* (Opladen: Westdeutscher Verlag, 1998).

⁵⁵ Ludolf Kuchenbuch, 'Abfall. Eine stichwortgeschichtliche Erkundung', in Jörn Rüsen, Jörg Callies and Meinfried Striegnitz, eds, *Mensch und Umwelt in der Geschichte* (Pfaffenweiler: Centaurus, 1989), 257–76.

traditional class-conscious unease towards plastics dating back nearly a hundred years. From the very beginning, plastics had had a mixed record of acceptance. Despite an enthusiastic reception, they had also faced fierce resistance driven by aesthetic judgment and scepticism towards the degrading cultural effects of mass culture (the previously mentioned ‘dust traps’). In the eyes of their critics, plastics, just like waste, had the power to upset the dominant social order. Adversaries condemned plastics for subverting the cultural norms shaping bourgeois consumption, such as the aesthetic principle of ‘truth to nature’, individuality, self-improvement or personal achievement.⁵⁶

Arguing for consumer democratic rights

The first two groups of letter writers voiced their concerns and suggested ecologically sound personal conduct. A third group of concerned citizens went further than this and called for institutional measures and state action. They proposed consumer-related regulations and technical adjustments, which would mitigate the perceived environmental and cultural waste crisis. They justified their demands in the name of common values which, they argued, had long been embraced by West German society in theory but disregarded in practice: the right to know, the right to choose and the right to health.

The right to know and the right to choose

Citizens called for more and improved market mechanisms in order to respect the democratic principles of procedural transparency and citizens’ electoral freedom – in other words freedom of choice for consumers. People insisted on their ‘right to know’. They wanted to see, for instance, the issue of environmental protection being promoted more aggressively: ‘Should not we advertise environmental protection the same way as whiter washing detergents for clothes?’ One woman said she was ‘convinced of the positive effect of radio announcements telling citizens to use fewer plastic bags, plastic bottles, cleaning products, etc.’⁵⁷ Consumers wanted to be able to make informed decisions when dealing with plastics. Gertrud N. from Bechtolsheim underlined the dilemma apparent in everyday life:

I recently heard: ‘Whoever does not comply with environmental law is acting socially irresponsibly’ (parliamentary debate, 16 December 1970). Unfortunately, the individual cannot but act ‘socially irresponsibly’ as long as the majority of cleaning products, detergents etc. do not declare which toxic substances they contain.⁵⁸

Only the well informed, people argued, would be able to exercise the consumer-democratic right to choose and thus become the all-decisive market force envisioned by the theorists of social market democracy. Note the interchangeability of ‘citizen’

⁵⁶ Westermann, ‘Oberflächlichkeit’, 13–14.

⁵⁷ BA Koblenz B 106/ 25530, Charlotte H., Wörth, 10 July 1972.

⁵⁸ B 106/25523, Gertrud N., Bechtolsheim, n. d.

and 'consumer' in the following letter, a fact that I take as evidence of the consumer democratic culture in place.

In my opinion, the right thing to do would be to increase citizens' responsibility. As a first step, quality labels should inform consumers about environmentally friendly or harmful products. I am particularly referring to packaging materials. Paper or cardboard should be used instead of plastic.⁵⁹

As long as there was no requirement to label, no one could differentiate between the many sorts of plastics such as vinyl, polyethylene or polystyrene, a range further compounded by trade names such as Vinnolit, Cellophan, Acella or Styropor.

Besides the need for improved consumer information, people called for better knowledge about actual waste flows. As the authorities had little experience of managed landfills or waste incineration,⁶⁰ people suggested systems such as long-term monitoring to reduce the uncertainties of waste disposal. Nikolaus S.'s proposal for a 'waste balance sheet' stated that 'similar to pharmaceuticals, every company should regularly report the kind of waste materials (quantity and quality) it produces and how it disposes of them'.⁶¹ Another subset of letters drew the government's attention to the unfair distribution of the costs of environmental pollution. The writers demanded that vinyl and the 'antisocial throwaway bottle (use once and throw away) be prohibited because the community foots the bill for its disposal'.⁶² In their opinion, the costs of environmental pollution appeared as social costs, ultimately being passed on to the taxpayer. A waste collection tax seemed to be a means of re-establishing justice but only superficially, because the consumer could not help producing packaging waste.⁶³ The underlying message was, once again, that consumers had a right to an informed choice between real alternatives. People demanded that their repertoire of available political actions be meaningfully broadened. Ministry officials dealing with consumer protection acknowledged the problem that 'the average consumer' lacked sufficient knowledge about science-based consumer goods and thus agreed with many consumers' analyses. Judging the problems that plastics posed to consumers, one official generalised: 'It seems to me, that this is the actual weak point in our

⁵⁹ BA Koblenz B 106/25528, Christoph L., Freiburg, 12 June 1971

⁶⁰ In the 1950s and 1960s there were 50,000 mostly unmanaged landfills in West German territory; only 130 containing the waste of 15% of the population were managed properly. In 1975, the number had dropped to 4,400 mostly managed landfills. In 1980, 69% of domestic waste and 85% of industrial waste went to managed landfills. See: *Amtliche Begründung der Bundesregierung zum Entwurf eines Gesetzes über die Beseitigung von Abfallstoffen* (Abfallbeseitigungsgesetz). BT-Drucksache VI/2401: 7; Bundesministerium des Innern, *Umweltprogramm der Bundesregierung* (Cologne and Bonn: no publisher, 1971), 39; Günter Hartkopf and Eberhard Bohne, *Umweltpolitik, I: Grundlagen, Analysen und Perspektiven* (Opladen: Westdeutscher Verlag, 1983), 434, 440; BA Koblenz B 106/25129, Sonder-Problem Kunststoff im Müll, Stellungnahme der Arbeitsgemeinschaft für Abfallbeseitigung, Apr. 1971, 2; on the science of dealing with waste see, Ralf Herbold, 'Technologies as social experiments: The construction and implementation of a high-tech waste disposal site', in Arie Rip, Thomas J. Misa and Johan Schot, eds, *Managing technology in society. The approach of constructive technology assessment* (London: Pinter Publishers, 1995), 185–98.

⁶¹ BA Koblenz B 106/25525, Niklaus S., Bad Meinberg, 4 June 1971.

⁶² BA Koblenz B 106/ 25190, Deutsche Wanderjugend Arbeitsgemeinschaft NRW, Hagen, 3 Feb. 1971, Pressemitteilung, 2 ('*ex und hopp*').

⁶³ BA Koblenz B 106/ 25527, newspaper clipping from *Stuttgarter Zeitung*, n. d.

social market economy.⁶⁴ By the end of the decade, the Ministry for Research and Technology (BMFT) and the state-sponsored organisation in charge of consumer tests *Stiftung Warentest* set up a pilot project combining consumer information and information technology. Interactive videotext would help consumers understand the technicalities of products by seeing this information on their own TV screens.⁶⁵ The idea was to accustom citizens to the demands of a consumer democracy heavily based on science and technology.

The right to health

Environmental issues involved a complex interaction of natural, economic, political and social factors. Vinyl was a perfect example of such a 'cross-cutting issue', to quote the new term.⁶⁶ The plastic waste debate became linked to other emerging discussions on thermoplastics. Not only was there poor knowledge of vinyl as a material and of its industrial and waste flows; what its chemical compounds actually did or did not do to the human bodies was also incalculable. In 1973, the suspected carcinogenicity of vinyl chloride monomer, from which polyvinyl chloride was made, gave rise to new concerns, which were substantiated soon afterwards. Severe forms of liver cancer (hemangiosarcoma) in workers were found to be related to vinyl production processes.⁶⁷ The news of occupational cancer in the vinyl industry made the issue of plastic consumption even more acute. Consumers feared for their immediate welfare. A citizen initiative addressing parliament felt justified in generalising from the concerned workers to the entire population: 'Since PVC products like bottles, cans, boxes etc., are widely used, the cancer risk extends to the *entire population*. Safety factors and protection measures should be far-reaching enough to encompass all consumers of vinyl.'⁶⁸ At the time, cancer had long come to stand for a dysfunctional society in general. Packaging made of cancer-causing vinyl chloride and accumulating as non-degradable waste seemed to prove doubly wrong the mechanisms of consumer democracy.

Unlike earlier discussions on the dangers of chemicals in food or in the workplace, the plastic debate sparked by vinyl reached out to new groups such as 'New Left' citizen initiatives, trade unions and concerned individuals. It did so in many different ways. Regarding occupational health hazards, people raised questions of power and social inequality. In the name of environmentalism, they challenged the economic and political system as a whole. Vinyl's omnipresence was either debated as a

⁶⁴ BA Koblenz B 102/9293a, Dr Schaller, 5 Nov. 1959, Kunststoffe, hier: Unterrichtung der Verbraucher über Kunststoffe und deren Eigenschaften.

⁶⁵ 'Informationssysteme für die Verbraucherberatung', *Das Erfrischungsgetränk*, 32, 40 (1979), 901.

⁶⁶ Küppers et al., *Umweltforschung*, 134.

⁶⁷ For the health hazards of vinyl and the political implications, see Westermann, *Plastik*, 237–314.

⁶⁸ BA Koblenz B 149/ 27872, Hannah S., Gesellschaft für menschliche Lebensordnung e. V. Leer, 18 Oct. 1976.

typical health and environmental issue created by the chlorine chemical industry⁶⁹ or within the larger framework of increasing cancer rates due to the 'overall toxic situation'.⁷⁰ The latter was invoked, for instance, by environmental activist Petra Kelly: 'Rubbish bags, packaging, chemical toxic substances – besides the destruction of the environment, overall toxicity continuously increases!'⁷¹ The accused industries fended off such attempts to generalise the dangers of vinyl. In fact, not all problems with vinyl necessarily applied to other synthetics. One could not simply conclude from the carcinogenicity of vinyl or the toxic fumes during its incineration that all plastics were equally problematic, as critics in West Germany tended to assume. Manufacturers of plastic bags insisted on this fact over and over again, complaining: 'The incorrect assumption that plastic bags are made of vinyl makes them the villains of environmental pollution.'⁷²

It is still fair to say that, due to their iconic status, thermoplastics and their waste became prominent vehicles for reconsidering the very foundations of consumer democracy. Citizens took up the issue of what constituted a common good in this democracy, giving it a new slant. To the common goods of shared prosperity and freedom of choice, as defined in Ludwig Erhard's social market economy, they added the value of physical integrity. Correspondents claimed that health was the highest common good the state must guarantee. Drawing on paragraph 2 of their Constitutional Law, stating the right to life and physical integrity, they actively argued with, defended and reclaimed their right to health. Fearing this right was being 'trampled on',⁷³ a Working Committee for the Environmental Protection of Eastern Friesland asked in response to the TV documentary 'PVC – a danger and its downplaying': 'What will you do to ensure that the consumer's fundamental right to personal physical integrity is protected against the risks of dealing with materials containing vinyl?'⁷⁴ In these debates, reference was often made to the values that were fundamental to West German society. People also pondered the problem of competing public interests. Werner V., an architect from Stuttgart, commented on the so-called permissible levels of emissions: 'The negative health effects are compared to economic losses and, in endless discussions, lame compromises are found while no compromises should be allowed regarding the protection of life.' Underlining the economic bias of West German politics, he continued:

⁶⁹ The environmental organization BUND created the slogan: 'PVC = Probleme vom Chlor', see *PVC-Hearing* (Bielefeld: no publisher, 1986), 4; Karl-Otto Henseling, *Chlorchemie: Geschichte und historische Entwicklung* (Berlin: Schriftenreihe des IÖW, 1990).

⁷⁰ A notion coined by Fritz Eichholtz, see Fritz Eichholtz, *Die toxische Gesamtsituation auf dem Gebiet der menschlichen Ernährung: Umriss einer unbekanntenen Wissenschaft* (Berlin: Springer, 1956).

⁷¹ Archiv Grünes Gedächtnis Berlin Bestand Kelly, 534, 4, 'Kernenergie, Wohlstandsgifte, Kinderkrebs – Die Erde hat keinen Notausgang: Ansprache an den Hausfrauenbund', Offenburg, Dec. 1976; similar: 'Gefahr aus weichen Flaschen', *Der Stern*, 41 (1975), 204–5.

⁷² Plastic bags were mostly made of polyethylene: 65,000 tonnes went into their production in 1968.

⁷³ BA Koblenz B 106/25530, Werner V., Dipl. Ing. Architekt, Fellbach, 29 Nov. 1971.

⁷⁴ BA Koblenz B 149/27872, Arbeitskreis für Umweltschutz Norden/Ostfriesland, 14 Oct. 1976.

Unfortunately, I must bitterly reproach the governments we have had in place since 1945 for the fact that they have heavily favoured materialistic thinking in terms of prosperity. I need only remind you of the disastrous promises of property made by Prof. Erhard.⁷⁵

Two general conclusions on the development of modern consumer activism in West Germany can be drawn from these debates on plastic. First, the prospect of plastic-littered landscapes unsettled West Germans' self-image because the mass cultural icon piling up as waste thwarted the idea of a steady flow of goods enabling social integration. Second, consumer activism focused on the problem of knowing too little about plastics – from labelling policies and actual quantities of waste, to the uncertain chemical risks. In doing so, consumers were highlighting a genuine feature of technoscientific mass commodities, which proved to be critical for the swift establishment of consumer protection as a citizenship right in the early 1970s.

'The height of plastic's period of ill repute' was not confined to the West German experience, as Jeffrey Meikle demonstrates in his intriguing subchapter on the US perception of plastic waste and the concurrent fear of toxic vinyl.⁷⁶ That Ralph Nader's consumerist movement took up the issue of health hazards of vinyl illustrates how plastics contributed to the discussions on consumer-citizenship rights in the United States. Meikle has taken the argument even further. According to him, plastics not only defined the post-war US culture of mass consumption. Being the 'essential media of recording, storage and display of information and images', they were crucial in creating the culture of hyperrealism and immateriality in the late twentieth century.⁷⁷ In this context, thermoplastics were part of the new waste flows: e-waste.

Plastic bottles: state regulation and industrial response

The letters fell on sympathetic ears: the government's environmental programme had already identified plastics as the fastest-growing contributors to a mounting waste crisis. Yet the experts had no answers for many of the questions posed by consumers. Neither the authorities nor industry knew exactly how much plastic waste West Germans generated or the proportion of vinyl in plastic waste. There were hardly any numbers available, let alone empirical studies on waste.⁷⁸ The preceding section documented the increasingly strong calls for securing consumer democratic principles either by strengthening the legal and regulatory framework or through technical measures. As we will see in this section, both strategies came to bear on the government's first attempt to deal with plastic packaging waste in West Germany. Both strategies were political, of course, in that they were meant to co-ordinate

⁷⁵ BA Koblenz B 106/25530, Werner V., Dipl. Ing. Architekt, Fellbach, 29 Nov. 1971

⁷⁶ Meikle, *American Plastic*, 264–76, quote on 276.

⁷⁷ Meikle, *American Plastic*, 299.

⁷⁸ Bundestag Drucksache IV/945 (1963), *Erster Bericht der Bundesregierung zum Problem der Beseitigung von Abfallstoffen*; Presse- und Informationsamt der Bundesregierung, ed., *Brennpunkt Müllproblem* (Bamberg: Fränkischer Tag, 1968); BA Koblenz B 106/25131, An den Bundesminister für Gesundheitswesen betr. Beseitigung von PVC-Abfällen, 2 June 1966, 1 and 2; similar F. Fischer, 'Kunststoffe im Müll', *Der Städtetag*, 10 (1970), 529.

divergent group interests and achieve a juster society.⁷⁹ It is difficult to gauge whether the letters had a direct impact on the Ministry of the Interior's policies. Arguably the officials' will to act benefited greatly from the public's keen concern about waste, as conveyed in the letters to the ministry and media coverage.

The authorities had been dealing with plastic waste since the mid 1960s.⁸⁰ Vinyl had come under attack after news leaked that the beverage industry was going to launch non-returnable bottles on a large scale.⁸¹ Butter containers and yoghurt pots, chocolate boxes and cosmetic packaging were already made of vinyl; the 'demon vinyl' now conflated with 'the nightmare of the non-returnable bottle'.⁸² The legal bases for government action were the 1972 Waste Disposal Law (*Abfallbeseitigungsgesetz*) and the 1975 Waste Management Programme (*Abfallwirtschaftsprogramm*), which presented the evaluation of previous work. Paragraph 14 of the Waste Disposal Law reserved the government's right to restrict the use of certain packaging and receptacles and to introduce a label requirement if these products entailed disproportional efforts in their disposal.

For the Ministry of the Interior, the paragraph in the Waste Disposal Law was a lever in dealing with corporate interest groups; it helped to make industry cooperate in avoiding waste. In principle, both sides wanted to reach an agreement based on industrial self-policing.⁸³ The Ministry of the Interior concentrated on the quantification, monitoring and growth control of plastic waste. Department U set out to achieve two things: halt the disproportionately rapid growth of throwaway packaging and avoid additional difficulties in waste disposal. Contrary to the suspicions of the plastics and soft drinks industry, the government's focus on the beverage sector was not arbitrary. In no other packaging sector was waste avoidance through reuse as easy and effective as in soft-drink packaging. This waste was not problematic in qualitative terms, Department U conceded at a hearing in October 1977 involving twenty-one organisations and companies. The waste materials were recyclable (metal and glass) or had the potential to become so (plastics) and the ministry deliberately excluded vinyl from the list of non-problematic materials. However, waste from drinks packaging was critical by volume; it accumulated as hollow bodies needing extra truck space for municipal waste collection, extra compression efforts and extra workers. Although the amount of plastic waste (1000 tonnes per year) was still small compared to glass (265,000 tonnes per year), the authorities defended any accusations that their assault on plastic bottles was disproportionate and motivated by old and unfounded prejudices: 'Just because the amount of waste accumulating from nonreturnable drink

⁷⁹ Luc Boltanski and Laurent Thevenot, eds, *Justesse et justice dans le travail* (Paris: Presses Universitaires de France, 1989).

⁸⁰ BA Koblenz B 106/25131, Niederschrift über die Besprechung am 2. Juli 1969 im Bundesministerium für Gesundheitswesen in Bad Godesberg, 4.

⁸¹ BA Koblenz B 106/25131, An den Bundesminister für Gesundheitswesen betr. Beseitigung von PVC-Abfällen, 2 June 1966, 2.

⁸² BA Koblenz B 106/25131, Niederschrift über die Besprechung am 2. Juli 1969 im Bundesministerium für Gesundheitswesen in Bad Godesberg, 10.

⁸³ Hartkopf and Bohne, *Umweltpolitik*, 453.

packaging is small in relation to the overall amount of waste, we cannot conclude that the avoidance measures we take here are useless; rather the numbers show that it is not too late for prevention.’ The government explained its general strategy for grappling with waste: ‘Considering that waste consists of a mix of very different materials, it is not realistic to try and achieve drastic reductions with one single measure. Rather we should count on the cumulative effects of a variety of efforts that, as a whole, will level off the growth of waste and keep the idea of multi-use profitable.’⁸⁴

The October 1977 hearing had been preceded by almost two years of preparatory work and bilateral discussions. An additional survey had shown that throughout all demographic groups, 70% of West Germans supported the practice already in place of paying a deposit for bottles – the survey made no particular reference to glass or plastic.⁸⁵ Apart from public pressure, the growth of waste, even though the numbers were incomplete or uncertain, was impressive enough to demand action. Since 1960, the weight of waste generated per capita and year had increased from 200 kg to 300 kg, thus by 50%. In the same period, the volume of waste (measured by household dustbins) had increased by 230%. Packaging materials had a disproportionate share of this growth: ‘Currently their share is 30% by weight and 50% by volume’, Department U explained during the hearing.⁸⁶ As a result of the hearing, the beverage industry agreed to restrict sales of plastic bottles for the next three years; it also agreed to uphold the system of multi-use bottles. Coca-Cola promised there would be no throwaway bottles of one litre or more.⁸⁷

From 1973 on, a new type of PET (polyethylene terephthalate) processing, stretch blow moulding, had resulted in bottles that better resisted carbonation and the acids in fruit juices.⁸⁸ PET bottles soon dominated the beverage sector and, after the discovery of the health hazards of vinyl, PET and other plastics replaced vinyl almost everywhere in the international food sector.⁸⁹ Arguably, PET bottles took ‘disposability’ to a new level.⁹⁰ In West Germany, the plastic, glass and soft drink industries (Hoechst; Gerresheimer Glas, whose parent company was Ohio-based Owens-Illinois, one of the five US producers of PET bottles; and Coca-Cola) allied to produce a PET bottle.

⁸⁴ BA Koblenz B 106/58838, Anhörung zur Einwegbehälterproblematik, 13 Oct. 1977, Ergebnisvermerk, 3–4, 6.

⁸⁵ BA Koblenz B 295/12852, Lottmann (Sachverständigenrat f. Umweltfragen) an Wolbeck, 22 July 1977, 3.

⁸⁶ BA Koblenz B106/58838, Ergebnisvermerk über das am 13.10.77 stattgefundene Gespräch über die abfallwirtschaftliche Problematik von Einwegbehältern, 3–4.

⁸⁷ Ibid.

⁸⁸ For an account by PET’s inventor Nathaniel Wyeth, see Nathaniel C. Wyeth, ‘PET – A Global Perspective’, in Raymond B. Seymour and Gerald S. Kirshenbaum, eds, *High Performance Polymers: Their Origin and Development* (New York and Amsterdam: Elsevier, 1986), 417–23; for DuPont’s 1974 patent, see www.google.com/patents?vid=USPAT3733309 (accessed 28 Feb. 2013).

⁸⁹ Stated in a letter from Hoechst chemical company of 9 Apr. 1985 in: Malte Wilkes, *Der Krieg der Flaschen: PET: Packungsfortschritt, der Wirtschaft und Umwelt schadet* (Freienwill: Bogon, Müller, Petzel, 1985), 167; also Martin Sherwood, ‘Polythene and its origins’, *Chemistry and Industry*, 21 Mar. 1983, 242.

⁹⁰ The history of PET illustrates the profound changes in food processing and consumer practices that plastics brought about, see Gay Hawkins, ‘Made to Be Wasted: PET and Topologies of Disposability’, in Gabrys et al., *Accumulation*.

In 1980, Coca-Cola came up with the product including an innovative detail: a 2 litre PET bottle, labelled 'returnable' and weighing 80 g compared to 1.4 kg for a glass bottle of the same size. The seemingly inherent link between 'plastic' and 'throwaway' was broken. As Coca-Cola proudly announced, plastic recycling was promoted by charging a deposit.⁹¹ The returned bottles were to be recycled, separating polyester, polyethylene, aluminium and paper. The shredded polyester would go, or so the industry declared, into the production of new bottles and other products.⁹² Plastics were presented as part of the problem but also as part of the solution. Industry's technical adjustments promised to reconcile critical consumer demands with the value of economic profit mongering and, at the same time, minimise the threat of law-enforced state interventions in market development. The agreement between state and industry to maintain deposit systems in the beverage sector postponed the West German arrival of PET bottles by more than a decade.⁹³ In 1983, there were virtually no PET bottles available because implementing a system of PET bottle recycling took time and did not make it beyond market tests until the late 1980s. In comparison, three billion litres of soft drinks were sold in PET bottles in 1986 in the rest of Western Europe.⁹⁴ Market realities finally helped push PET bottles in West Germany: in 1988, the country imported 300 million litres of plain water delivered in non-returnable vinyl bottles, mainly from France. So why reject PET, the industry argued. As the state kept insisting on a policy of recycling,⁹⁵ Coca-Cola and its allies pursued their PET recycling project: in 1988, its PET bottle deposit system in West Germany was, for the second time after 1984, in a test phase involving 700 shops in the city of Cologne.⁹⁶ In 1987, the first pilot facility for PET recycling had been established with a packaging producer in the Netherlands; its deputy director was also head of Coca-Cola's public relations.⁹⁷ But this was just the beginning; the future of plastics recycling was yet to take off.

For consumers critical of plastics, the delays caused by techno-scientific and economic obstacles once again highlighted the two basic truths about synthetics and their waste: ever growing quantities accompanied by ever new uncertainties. Although plastic recycling is now taken for granted by consumers, the issues of knowledge and ignorance stay with us, and the uncertainties surrounding all types of

⁹¹ BA Koblenz B 295/12852, Wolbeck an Bundesinnenminister Baum über Staatssekretär Hartkopf u. a. Bonn, 2 Jul. 1980; 'Umweltschutz durch Kunststoff', *Getränkeindustrie*, 34, 7 (1980), 631–7; 'Coca-Cola startet Markttest mit PET-Flasche', *Neue Verpackung*, 33, 7 (1980), 878–83.

⁹² See letter from Hoechst in Wilkes, *Krieg*, 169.

⁹³ 'PET – die umweltfreundliche Getränkeverpackung', *Neue Verpackung*, 36, 11 (1983), 1370–7.

⁹⁴ 'Damm gegen Plastik-Müll: Bonn hat ein Pfand für Kunststoffflaschen beschlossen', *Die Zeit*, 16 Sept. 1988.

⁹⁵ Roman Köster forcefully argues the defining role of the West German state in creating recycling markets, Roman Köster, 'Waste to Assets: Structural Changes in the Recycling of Household Waste in West Germany after WW II', paper for the Workshop Re/Cycling Histories: Users and the Paths to Sustainability in Everyday Life, May 2011, Rachel Carson Center, Munich.

⁹⁶ 'Damm gegen Plastik-Müll'; 'Coca-Cola will's jetzt wissen. Erfolgreicher Testverlauf in Essen', *Neue Verpackung*, 38, 2 (1985), 30–1.

⁹⁷ Regina Maaß, 'Spitze des Eisbergs: Bei der "umweltfreundlichen" PET-Flasche handelt es sich um ein verkapptes Einweg-System', *Müllmagazin*, 1 (1988), 17–19.

plastics are global: they apply to the 'Great Pacific Garbage Patch', the huge stretch – its actual size is difficult to gauge – of neustonic and mostly invisible photo-degraded plastic particles formed as a result of marine pollution and gathered by oceanic currents.

Conclusion

In the 1950s and 1960s, plastics were hailed as the material that would not only bring about an economic boom in West Germany, but also significantly bolster this country's consumer democracy. However, the 1970s saw plastics being redefined as an environmental and health hazard associated with growing amounts of plastic waste and the carcinogenicity of vinyl chloride monomer. The shifting significance of plastics highlighted a substantial change in West Germany's political culture. The way in which consumer interests were represented in the early years of the Federal Republic fitted into West Germans' larger picture of their relatively depoliticised course of collective action and decision-making. To many people, acting responsibly amounted to pursuing pragmatic 'non-politics'. Correspondingly, the early proponents of a social market economy had based citizens' social belonging on access to economic security and affluence rather than on overtly political notions of participation.

Plastic waste and the health hazards discovered to be linked to the production of vinyl made people write to newspaper editors, confront the authorities regarding the need for regulation and remind the manufacturing companies of their responsibilities to consumers. They felt strongly that consumers were entitled to have clear product information and know what effect plastic products were having on the environment and on their health, in order to make informed choices. The letters also testified to a new willingness of people to publicly embrace ecological life styles and consumer practices.

The letters fell on sympathetic ears, given the fact that in 1971 the government had already identified plastics as the fastest growing contributors to a mounting waste crisis. Backed by public pressure, the government started to enforce the legal and regulatory framework dealing with plastic waste. In 1977, it summoned the beverage industry with the aim of banning non-returnable plastic containers for soft drinks. The industry reacted with a technical solution: it proposed to reuse plastic bottles not by way of classic multiple use of the actual bottles but by way of material recycling.

There were other science-based mass commodities such as the sleeping pill *Contergan* or pesticides that had provoked the vocal opposition of consumers before. However, the issue of plastics gained considerable momentum because synthetics had been crucial in creating modern mass consumption in the first place. The issue also had traction because people had had mixed feelings towards plastics since their inception in the late nineteenth century. Besides hopes of modernity and affluence, plastics and their synthetic or artificial nature had also provoked strong anxieties. Their image of shoddiness, falsity and veneer implied the superficiality of mass culture. This unease and the call for consumer and environmental protection helped shape the specific

character of the West German, and arguably European, consumer citizen of the late twentieth century.

Quand les citoyens consommateurs s'expriment: Premières initiatives de recyclage du plastique en Allemagne de l'Ouest

On présentait jadis le plastique comme la matière qui stimulerait non seulement l'économie de la République Fédérale de l'Allemagne, mais également sa démocratie de consommateurs. Mais au cours des années 70, le plastique en est venu à être perçu comme un danger pour l'environnement et les consommateurs. En se fondant sur des lettres de protestation et d'autres sources, cet article explore ce qui a mené à cette réévaluation du plastique et le cheminement qui en a fait un objet de préoccupation pour le public. Cette matière emblématique est alors redevenue un symbole, mais pour des raisons négatives. D'après moi, si la question du plastique a pris une telle importance, c'est à cause de son rôle crucial dans la création de la consommation de masse moderne. L'évolution de la signification du plastique met en outre en lumière, selon moi, un changement marquant dans la culture politique de la RFA. Alors que les premiers tenants de l'économie sociale de marché considéraient que l'appartenance sociale était basée sur l'accès à la sécurité et à la richesse économiques, plutôt que sur des notions ouvertement politiques de la participation, les gens se sont mis à insister sur les aspects politiques de leur identité de groupe en tant que consommateurs, faisant de l'information

et de la protection des consommateurs des droits citoyens.

Als die Verbraucherbürger sich zu Wort meldeten: Westdeutschlands Umgang mit Plastikmüll in den 1970er Jahren

Lange verkörperten Kunststoffe den materiellen und ideellen Wiederaufbau der bundesdeutschen Verbraucherdemokratie. In den siebziger Jahren wandelte sich diese Wahrnehmung abrupt: Plastik wurde nun zum Risiko für Umwelt und Verbraucher.

Der Beitrag untersucht u. a. anhand von Leserbriefen, wie es zu dieser Problematisierung kam. Die Autorin argumentiert, dass Plastik und Plastikmüll deswegen so vehement kritisiert wurden, weil Kunststoffe entscheidend zur Entstehung des modernen Massenkonsums beigetragen hatten: Sie blieben auch unter negativen Vorzeichen ein zentrales Symbol der Massenkultur.

Die Problematisierung von Plastik weist zudem auf einen Wandel der politischen Kultur in der Bundesrepublik hin. Während die frühen Verfechter der sozialen Marktwirtschaft gesellschaftliche Integration eher über die Teilhabe der Bürger an wirtschaftlicher Sicherheit und Wohlstand sicherzustellen gesucht hatten statt über politische Teilhabe, begannen diese ihre Rolle als Verbraucher zu politisieren. Verbraucherinformation und Verbraucherschutz sollten nun Bürgerrechte werden.