Mask self-production during the early stages of the COVID-19 pandemic: lessons from a flash practice

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ABSTRACT
This article examines the self-production of washable and reusable sanitary masks during the early stages of the COVID-19 pandemic by focusing on the varied concerns, skills, and material resources that people mobilized. Based on hundreds of testimonials gathered at three key moments of the pandemic in France, we describe mask-self production as a “flash practice.” The immediate life-threatening context put the focus on basic and short-term concerns at the expense of other aspects (such as care for the environment, which played a surprisingly inconsequential role). Nonetheless, this household-based practice quickly evolved into a more collective undertaking with masks being self-produced together by sharing patterns and standards and by donating masks to others. We also show that the practice vanished very fast, as commercial masks became available again. Because flash practices disappear and can quickly fall into oblivion, we hold that researchers need to document and theorize them carefully, for flash practices raise important questions about the temporality, sustainability, and routinization of concerned practices.

Introduction

Integrated with a broader set of shielding practices (social distancing, hand washing, using hydroalcoholic gel, wearing latex gloves, elbow coughing, and so forth), wearing sanitary masks quickly became an everyday practice for a large segment of the population in France, while encountering difficulties in other countries—political resistance in the United States, institutional refusal in Sweden, and so on. In France, very early on, masks were as much desired as they were lacking, in a high anxiety-provoking context. The dual discourse of the authorities, claiming that masks were lacking, in a high anxiety-provoking context. The dual discourse of the authorities, claiming that masks were needed for health professionals but unnecessary for the lay public, led the latter to improvise and wear makeshift masks (e.g., scarves, masks made of paper towels or bras), recycle old ones (use of outdated masks), divert the use of professional devices from anti-pollution to anti-viral purposes (dust masks), or sew their own fabric masks by hand or by using (or not) sewing machines (homemade masks).

In this article, we examine the above-mentioned practice of mask making in France in response to the COVID-19 crisis in its earlier phases. More precisely, we focus on the diverse practices related to homemade washable and reusable fabric masks, as opposed to commercial disposable ones intended for a single use (i.e., to be quickly thrown away without being washed, stored, and reused). We review what concerns, skills, and material resources are combined by people when crafting their own masks (Shove, Pantzar, and Watson 2012). More importantly, we study how mask self-production and all related practices constituted a key but temporary transition to the broader use of masks and the present dominance of disposable masks borrowed from the medical world (Strasser and Schlich 2020). We describe and theorize mask-self production as a flash practice, with reference to flash mobs, meaning collective actions that appear suddenly and disappear just as quickly (Al-Khateeb and Agarwal 2021), mobilize new communication media (Nicholson 2005), and renew the use of public space (Molnár 2014). The mob dimension of mask self-production emphasizes its sudden collective dimension as a “nascent form of collective action” and a “new form of sociability” (Molnár 2014). Its flash character challenges and enriches practice theory, a body of research that mostly stresses the gradual transformation of social practices because of their collective...
character and embeddedness in a large and long-standing web of objects, norms, and values—that is: “systems of practice are subject to continual, ongoing reproduction” (Shove and Walker 2010).

The flash practice echoes certain insights from “disaster studies,” a body of research that examines “emergent phenomena prior to and after disaster events” (Drabek and McIntire 2003). More precisely, the COVID-19 crisis is close to “post-disaster” management, a situation where people have to adopt an “ephemeral role,” that is, “a set of behaviors and behavioral expectations associated with a transitory position in an emergency ad hoc social structure” (Zurcher 1968, 283). These behaviors seem to be “overwhelmingly prosocial, making the antisocial behavior seem relatively minor in term of frequency and significance” (Rodriguez, Trainor, and Quarantelli 2006, 100–101). As our own case will show, mask making is not only prosocial, but also “protechnical,” so to say: people have to invent new practices or quickly build on previous ones to devise innovative actions. They take advantage of available materials and digital resources (Rayna and Striukova 2021) to craft their own goods (Von Hippel 1986; Campbell 2005) and combine these various inputs into a novel and appropriate set of meanings, skills, and materials.

We document mask-making practices based on a set of more than 2000 testimonials of people, gathered in three waves of the pandemic-related restrictions and lifting of restrictions (first lockdown, immediate post-lockdown, and back-to-school periods). In the first section of this article, we describe our set of objects (the sanitary masks), the stakes, and the theoretical and methodological frameworks with which we address them. We then highlight the practice of mask self-production itself based on the analysis of our testimonials. We show how the flash practice worked. It emerged as a household-based initiative driven by an emergency in combination with practical and social burdens but were almost immediately converted into a more collective endeavor aimed at ensuring a form of sanitary protection and thus alleviating the incapacity of market and government actors to provide face masks. It quickly vanished when pandemic patterns, public policy, and provision schemes renewed the mask issue. Last but not least, the focus on immediate needs outweighed environmental concerns despite the potential of mask self-production practices to be part of post-COVID scenarios toward a more sustainable future (Wells et al. 2020). In the Discussion and the Conclusion sections, we reflect on the challenge of introducing sustainability concerns based on flash practice experiences.

Sanitary masks, their stakes, and how to address them

From commercial masks to homemade masks: the stakes involved in a flash practice

Sanitary masks can be described as typically modern objects if we refer to the two-dimensional aspect of such goods (or evils!) (Latour 1993; Cochoy 2021). On one hand, masks share with other modern objects the ideal of one-dimensional and measurable progress. These devices are engineered based on scientific knowledge, using improved materials, and following rigorous testing procedures. The filtering capacities of masks are carefully specified and scientifically measured. On the other hand, sanitary masks also share the dark side of modernity as far as their environmental impact is concerned. To use an analogy, in the same way that automobiles not only transport people but also emit greenhouse gases, sanitary masks help protect us from contagion yet endanger the environment. Indeed, while keeping the virus away to a certain extent, polyethylene masks work as Trojan horses for the reassertion of the disposable and plastic society (Gavin 2002) that people are painstakingly trying to escape.

Along the way, we understand that discussing the sanitary mask in general is largely meaningless. Behind the mask, there are masks: dust masks, surgical masks, fabric masks, and so on. Now, the differences among the various appearances and properties of objects matter. In this article, we focus on the homemade fabric mask, which introduces a significant alternative to disposable plastic and store-bought reusable fabric devices. Homemade fabric masks, which suddenly emerged and spread in the beginning of the COVID-19 crisis in France, convey an imaginary of archaism and tinkering, evoking a return to the self-production era of the present generation’s great-great-grandmothers (Strasser 1999). This said, the same mask is also connected to do-it-yourself (DIY) (Watson and Shove 2008) and the so-called prosumption practices where consumers supplement or replace manufacturers as producers (Von Hippel 1986; Campbell 2005; Ritzer and Jurgenson 2010). Mask making is an avant-garde, high-tech type of behavior based on web-circulated tutorials and sharing of experiences on social media (Meyer 2020; Rayna and Striukova 2021). Being washable, reusable, and made of recyclable or degradable materials, homemade fabric masks seem perfectly adjusted to contemporary concerns for the circular economy and environmental protection even if early mask makers largely overlooked this potential.¹

What processes and concerns drove the quick development of mask self-production? What made
them vanish? What are the consequences? These are precisely the questions that we propose to tackle.

**A practice-theory based study**

We shall answer these questions at the practice level, based on the idea that major issues and societal evolutions arise from down-to-earth, mundane, and practical behaviors. Reckwitz (2002, 250) defines a practice as “a routinized way in which bodies are moved, objects are handled, subjects are treated, things are described and the world is understood” (emphasis added). Similarly, Shove, Pantzar, and Watson (2012) present a systematic model, explaining that enacting a social practice generally relies on the tight and gradual articulation of materials, skills, and meanings.

For instance, driving a car (O’Connell 1998) and cooking (Domaneschi 2019) are enduring practices whose evolution is obviously dependent on slow-changing infrastructures, routines, and social norms. Of course, new and less stable practices can also emerge, as the case of Nordic walking clearly shows (Shove and Pantzar 2005). This latter practice spread, due to the efforts of sports companies and professionals aimed at creating favorable conditions for its development, as well as attempts by practitioners to adapt their own behavior to the new way of walking in different places and contexts. Last but not least, regular practices are reshaped when disrupted by unexpected events. For instance, a drought and a relative hosepipe ban led Britons to adapt their water-consumption patterns to the situation (Chappells, Medd, and Shove 2011). Mask making followed similar patterns but moved a step further. Unlike Nordic walking or garden watering, mask making is neither the progressive adoption of an optional leisure activity by specific groups of adepts nor the implementation of longstanding routine practices, respectively, but the massive and almost immediate manufacturing of a new device, presented as a way to satisfy a vital need, that of breathing safely. Consequently, its practice dynamics are somewhat different.

Our case conveys three contributions. First, we show that in emergency circumstances, people prove able to quickly coordinate and shift an effort based on previous routine-like practices to a collective endeavor, characterized by a synchronous, effervescent character. This synchronization effort is strongly supported by online resources, such as mask models and social networks.

Second, in the same context, the practice presents a flash-like and fleeting character. Contrary to ordinary, continuous, and routine-like practices, mask making presents itself as a fast and agile *transition practice* toward other ones, such as the purchase of commercial masks once restocked.

Finally, homemade mask production was somewhat short lived. The immediate life-threatening context focused the practice on basic and immediate concerns, such as “having a mask whatever the type.” Thus, it overlooked some of its obvious potential aspects (e.g., the sustainability of making washable, reusable, and recyclable items).

All three contributions are time related. Our case shows that a social practice, even if it relies on social contingencies and is therefore collective and hard to initiate, can develop and then vanish rapidly. This goes against the idea that social practices take a long time to both set up and undo and that society is such a complex entity that it is not agile (unlike individual persons). This case shows a rapidly growing coordinated practice (coordinated between and among individuals and coordinated with other practices). Here, the practice did not last for three reasons. First, at the end of the lockdown period, people lost the time and freedom conditions that first favored the practice. Second, few things became institutionalized (neither the competencies nor the meanings around safety). Finally, commercial masks quickly became available again and were regarded as easier solutions.²

**The method: a qualitative analysis of a collection of testimonials**

As mentioned, to document mask self-production practices and their meaning, we rely on testimonials provided in response to a call circulated by the online versions of various regional newspapers (Ebra newspapers, Nice Matin, La Dépêche du Midi, and Center France newspapers). The readers of these publications answered the call from the newspapers’ websites, and the data were recorded through the Limesurvey platform. To be more specific, we launched three successive calls, each covering a key period of the pandemic: the first lockdown (April 3–12, 2020; 1018 testimonials), the immediate post-lockdown (May 28–June 8, 2020; 620 testimonials), and the back-to-school weeks (September 25–October 23, 2020; 450 testimonials). The calls were conveyed as an open invitation asking respondents to report freely on their experience with masks, whatever their forms:

*Tell us about your experience with the mask(s)… For example: tell us how you got it or made it and under what circumstances you use it, what type of mask(s) it is, what you think of it, what are the reactions around you, etc.*³

This longitudinal and open approach led to the collection of 2088 narrative testimonials which were
supplemented with information about the respondents (age, gender, place of residence, and occupation). In the following pages, all first names are pseudonyms that reflect each person’s gender. Given the national coverage, the personal details we provide are not enough to identify the respondents.

Our empirical materials can thus be described as mass qualitative data. The data are qualitative because people were invited to share their experiences openly, in written form, and without any word limit. We collected stories ranging from just one word to 1475 words, with an average of 106 words and a standard deviation of 122. At the same time, the data are massive, given the total number and the length of the testimonials.

From this large corpus addressing every aspect of the mask experience, we extracted a sub-corpus, where people reported their own experiences of mask self-production. We did so with the use of filtering words, such as “cloth,” “fabric,” “sew”, “homemade,” “tuto,” and so on. Next, we read the entire collection of 626 testimonials obtained with this procedure. We eliminated odd ones (e.g., people who alluded to a fabric mask but made none), further downsizing the corpus to 343 testimonials.

Our close reading of this sub-corpus enabled us to perform a classic content analysis and to identify significant stories and practice patterns. Instead of imposing decontextualized questions on people (such as in ordinary questionnaires), we extended a wide and open invitation (see above) to let them express themselves and share their experiences as they wanted, according to their personal and local settings.

Before analyzing our sub-corpus of testimonials on mask self-production, it is important to provide a brief overview of mask adoption over the one-year period under study in France. Every week from April 7 to June 5, 2020 (i.e., during the first lockdown and immediately after), the Ipsos polling agency surveyed a panel of 5000 persons representing the French population. This poll provides evidence of a continuous and rapid adoption of masks; 50% of the respondents reported wearing them at least occasionally in the beginning of the period when they were yet critically lacking, and as soon as early June, this rate rose as high as 97%, with only 3% saying that they would never wear a mask.

To complement these findings, we conducted a systematic analysis of the complete corpus of 2088 testimonials based on a computer-assisted analysis of co-word patterns. The results confirm the widespread acceptance of masks in the French context and convey interesting complements. In particular, the findings reveal five main themes: (1) provision (how to find masks in the context of scarcity), (2) contagion (worries and political views about the pandemic), (3) interaction (how mask wearing disrupts ordinary face-to-face communication), (4) use conditions (views about proper mask wearing), and (5) self-production (mask-making practices). What is striking is the rapidly changing importance of each theme as time passed; in particular, the self-production of masks quickly emerged as a significant practice (16%) despite its complete novelty. Moreover, it became the most important topic after the first lockdown (40%) but almost disappeared as a concern after the summer (6%), when commercial masks became widely available again (see Figure 1). In other words, this evolution provides evidence of the two characteristics of a flash event—mask making immediately developed and spread but also vanished quickly. Worries and resentment about the contagion evolved in the opposite way; they declined in

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Figure 1. Evolution of concerns about masks.
parallel with mask self-production (from 38 to 19%) and increased again when people neglected DIY practices (from 19 to 35%) as if the latter played an ephemeral calming role. Last but not least, environmental issues were not part of the major themes. These are facts that we now document further by examining closely the testimonials of mask self-producers.

**A flash spread of the practice: from household-centered initiatives to larger collective efforts**

**A household-based practice: protecting the family under lockdown and scarcity circumstances**

In routine settings and as stated above, practices are complex sets of materials, skills, and meanings (Shove, Pantzar, and Watson 2012) that matter more much than the individuals who undertake them (Reckwitz 2002). In contrast, homemade mask production in the pandemic context was more ambivalent. On one hand, it first appeared as a household-based practice; on the other hand, this household dimension quickly evolved into a network-based endeavor aimed at acting together and caring for others on a much larger scale.

In the beginning of the pandemic, sanitary motives were first unsurprisingly the dominant driver behind mask-making practices. The situation’s urgency and complexity and people’s anxieties arguably put the spotlight on immediate issues—most notably, people’s health—at the expense of other issues, such as economic, fashionable, and environmental dimensions. The French government quickly encouraged the production of alternative masks as a way to alleviate the shortage of commercial sanitary ones. Public discourse focused only on health protection. Second, mask wearing gradually became part of people’s day-to-day practices; it became an increasingly used and familiar object. In doing so, it also became part of everyday life questions and choices. Finally, in such a sanitary crisis context, people had to indiscriminately use all available resources (regardless of their nature) to protect themselves. They had to deal as well as they could with the shortage of masks and the lack of public and market supply. At the same time, the lockdown both forced them to wait on themselves and provided them with the time to do so. The emergency situation, mask adoption, the fear of running out of resources, and the lockdown context were therefore the four main driving forces behind the rise of the self-production practice. In other words, self-production was a practice for want of a better one, enabling people to be proactive in response to a life-threatening situation that was nevertheless beyond their control:

> I am a caregiver, and since the beginning of the pandemic, I thought it was absurd that we were told that masks were not needed. Due to the lack of supply, I decided to start making them. (Marie, 54, midwife, Alpes-Maritimes, W2)⑥

In such circumstances, household-based concerns stepped back from the practice as “a temporarily unfolding and spatially dispersed nexus of doings and sayings” (Schatzki 1996, 89). Many of the respondents perceived self-production as a response, albeit flawed and fragile, to their own health concerns. These concerns often arose from the fear of infection when already suffering from a chronic or an acute illness or from the risk of infecting a loved one with co-morbidities:

> I made a mask for everyone the first weekend of the lockdown. I thought that despite all that we heard on the media (about their uselessness), it would be an additional barrier anyway. My husband being “at risk” and having to take care of his 95-year-old mother (who lives alone) 2 to 4 times a week, it could only be an additional protection. (Sylvie, 55, teacher, Haute-Garonne, W2)

Sylvie’s testimonial makes it clear that if mask making is often the outcome of a private initiative, the latter was not an individual but a family-related one.

During the first lockdown, most of the concerns explicitly expressed by self-producers were health-related. Self-production arose from the deprivation, unsatisfied needs, and increasing health risks due to the scarcity of sanitary devices. Making one’s own mask was therefore a way of having a mask without having a mask (i.e., providing oneself with a sanitary device whose protective value was unknown). It prevented people from high exposure to the virus (bare face) without eliminating the eventuality of failure.

The respondents were lucid and reflexive on this point; they admitted doing things poorly or doing things as best as they could. They indicated that they would also do better if the required material resources for self-production were not lacking as well. Indeed, albeit its sudden and emerging character, it is important to stress that mask making did not emerge from scratch. The practice developed at the intersection of other practices, such as caring for family, shopping, previous DIY experiences, and so on. In other words, mask making was linked to and shaped by its relation to other practices in daily life and systems of provision.

More specifically, the practice of mask self-production often depended on the availability (at home) of internal resources, such as sewing machines, as
well as external resources, such as various supplies (e.g., haberdashery, fabric, rubber bands):

I make my own three-fold masks with my sewing machine and cotton-fabric leftovers. (Audrey, 35, police officer, Allier, W1)

The most common and critical example of a most needed but often missing supply was the case of elastics:

Being a sewer and with the little elastic I had left, I made a fabric-lined mask for myself. (Sandra, 37, administrative assistant, Yonne, W1)

The observed disparities in equipment affected the expression of individual skills (people said that they could hardly do things right when they lacked the proper materials). As a result, the meanings related to their gestures were also altered; people failed to reach their goal—making personal protective equipment—but they worked within the constraints of the moment. Mask makers had to work within the framework of a practice constrained by the temporary shortage of materials. This practice can thus be described as a form of *bricolage*, limited in terms of material resources that forces people to make do with what is available (Lévi-Strauss 1966).

Uncertainty about the materials used was coupled with self-doubt about personal sewing skills and a more general uncertainty about the level of protection of the handmade masks. Faced with these interdependent uncertainties and based on their previous routines and skills, people instantly sought to reestablish a normalized way of practice in order to find their own standard along the way. Their attempts were favored by the lockdown context that provided them with the time to engage in such an activity.

One of the ways to frame this practice is to certify the quality of the activity being performed. This is striking when reading the testimonials: many self-producers referred to a specific and publicly available model, a pattern that reached consensus. These shared knowledge, resources, and repertoires bring people closer to the concept of community of practices (Wenger 1998). Moreover, the respondents innovated with local solutions, no matter how imperfect they might have been, to solve the general problem of mask shortage. As the next subsections show, the sudden appearance and then disappearance of the flash practice were both due to the intersection of situated performances and dynamics in systems of provisions, underlying infrastructures, and social contexts.

**The emergence of a community of practice: doing things together at times of social isolation**

The household-based practice almost simultaneously shifted to a much more collective one. In other words, like in the case of Hurricane Katrina that ravaged New Orleans in 2005, antisocial behaviors were replace by “prosocial” ones (Rodriguez, Trainor, and Quarantelli 2006). Indeed, in the beginning of the pandemic, a certain fervor or effervescence also prevailed. It was all about working together to deal with a failing healthcare system, while protecting oneself and close relatives. This contingency situation called for a sudden reaction; it “hit people in their guts.” The pandemic crisis and the disruption of social life produced other emotional expressions, such as applauding healthcare professionals daily at 8 pm or circulating drawings or humorous photos of zany masks on social networks to elicit laughter. Mask self-production thus appeared as a more positive and productive way to express one’s gratitude to healthcare professionals and to do one’s share by both alleviating risks and taking care of others. In other words, what was at stake was not only a duty aimed at preventing collective harm and protecting the most vulnerable people in a civic and responsible way; it was also a matter of visceral urges and the (ir)rationality attached to the behavior of home-confined persons. Thus, self-production practice should also be viewed as an instant and emotional response to a sudden and extreme disruption.

Driven by the effervescence, people cross-checked and compared their sources. In the context of the COVID-19 pandemic people did not face a carefree DIY situation, where they were unfamiliar with the scientific and technical realities involved, but a concerned and distributed DIY situation, where they sought to reach the least downgraded standard possible:

I made a few fabric masks … the pattern comes from the hospital of Grenoble … I consulted the study of an American university to check which type of fabric was the most adapted between the filtering of particles and the breathability … Contrary to French recommendations, I did not put fleece in addition to the 2 layers of fabric; the US study showed that it had almost no impact on the passage of germs of the size of corona. (Claudie, 56, unemployed, Puy-de-Dôme, W1)

Self-production frequently took the form of an industrial craft in the sense that a significant segment of the domestic garment workshop would seek to refer to a generally agreed standard of production. All the micro workshops were thus bound to the same *modus operandi*, or rather, to an increasingly restricted range of *modus operandi* that was gradually becoming institutionalized. All of the mentioned sewing patterns were available on the Internet. None of the testimonials referred to a pattern found in a store or in a book. Similar to the observations in other prosumption practices (Rayna
and Striukova 2021), the Internet played a powerful role in recruiting adopters of the practice (Meyer 2020). This rapid dissemination of patterns allowed people to go beyond isolated local DIY practices and to achieve a certain collective efficiency.

The first standard that emerged was the Grenoble University Hospital (Centre Hospitalier Universitaire de Grenoble [CHU]) standard, which became the milestone reference during the lockdown period. Then, the CHU sewing pattern was overtaken by the French Standards Institute’s (AFNOR) certification pattern, recommended by health authorities and the government. As previously mentioned, self-producers looked for reliable and scientifically verified information, but they also wanted to quickly avoid the transaction costs associated with their information search by relying on the master reference of the moment.

To be reassured, some self-producers sometimes conducted tests to prove the effectiveness of their equipment:

I know that to tell if a mask is effective, there is the “flame test” [blowing through the mask should not extinguish a candle]. I have tested a few masks that I have sewn, and I know that according to this test, several are not effective. But I wear them anyway… I’m more careful with the masks I sew for myself now. (Julie, 38, librarian, Alpes-Maritimes, W3)

Self-producers improved their practice over time, stabilizing it according to the information received or the changing configurations of their use:

They are “3-fold” masks for the first ones, then with the “AFNOR” fold for the following ones. The last ones I made have a little stick integrated to make a “nose clip.” I’m improving my practice! They are all with 3 layers of fabric… The first ones were made with very thick fabric; the first heat wave made me make others with fabric just as protective but a little less thick. (Sylvie, 55, teacher, Haute-Garonne, W2)

The self-production practice followed a learning curve; each successive endeavor was a further step toward greater control of the process. The latter could be described as a learning-by-crafting process, which enabled people to identify the material requirements to make a good mask (i.e., choosing a fabric, doubling or tripling its thickness, assembling it). Such a process led to better knowledge of the virus and its mode of contamination. It resulted in the progressive stabilization of people’s skills regarding the proper wearing of masks (knowing their mask from every angle meant being able to better preserve its effectiveness). It also led to the common (re)definition of the symbolic and motivational background underpinning the practice. Sanitary and civic concerns shifted to more prosaic ones, such as comfort and use, but still with little care for environmental issues, as if having one’s nose behind a mask, even a fabric one, prevented a person from looking beyond.

However, even if initially based on household-centered motives at times of social isolation, mask self-production was also accompanied by greater sharing of know-how. People learned and transmitted knowledge as well. In this respect, the respondents produced not only masks but also tutorials that they soon shared with friends, relatives, and other people:

Friends and sisters who had a sewing machine told me how difficult it was to make masks themselves. So, I decided to take pictures and write an illustrated step-by-step template as I made them, which I did for the three models mentioned above, improving them when possible. I should point out that I am not a professional seamstress, just a good amateur. (Brigitte, 64, retired researcher, Haute-Garonne, W2)

As shown above, relying on external patterns and sharing experiences shifted the household-centered practice to a wider collective one. Mask gifts and care for others pushed this move further. At the beginning of the practice people refrained from obtaining masks when these devices were also in short supply for the caregivers who needed them as a matter of priority:

Knowing the lack of masks for medical professionals and other essential and exposed professionals and being myself isolated, I did not seek to purchase a mask. However, for my occasional trips, I will try to make a “homemade” mask with a folded cotton fabric with elastic. (Charlotte, 35, technician in organic agriculture, Lot, W1)

In the preceding excerpt, caregivers were opposed to non-caregivers, exposed persons vs. locked-down ones (with a lesser need for masks). People were not in an ecological economy but in an economy of scarcity, where being outside and with possible contact with the virus were the touchstones. In a kind of sanitary civic mindedness, Charlotte stepped aside, prioritizing the healthcare practitioners’ needs. “However,” (as she says) Charlotte considered making a mask for her occasional travels. Mask making at home thus came as a windfall solution to solve a moral dilemma; one could leave the surgical masks to health professionals and have a fabric mask for oneself.

Alternatively, mask giving quickly became the complement of mask making. If 343 out of the 2088 respondents designed and crafted homemade masks by themselves (i.e., 16.4% of the full collection of testimonials), 16% of these mask self-producers stated that they had also received a homemade mask from family members, friends or colleagues, whereas 36% declared that they had given one or many. These key figures underline the extent to which this
object spread among the population in just a few weeks, not to mention the media coverage generated by homemade mask production, a practice that significantly favored the recruitment of new adopters. A spiral of donation and solidarity was set in motion. Moreover, if the respondent-manufacturers gave masks, they did so not only of their own accord but often also due to requests from others. Expressed in another way, they had to share their supply by freely giving their unexpected production:

I have had a mask for two days now, and then, I have started to produce them for the collective. I started after being asked by the person who mows my lawn in the country (where I live now) ... I ... told him I was going to make masks. I already gave him 3 when he came the next day to take the fabric masks, and today, I made the rounds of the neighbors to distribute them (about 10), and I am preparing a stock to supply professionals ... I share photos of my masks with my friends; it maintains our ties and allows them to spend a moment of distraction, for some locked-down in a flat in Paris. (Hélène, 64, consultant and self-employed trainer, Paris, W1)

This testimony from a Parisian professional exiled in the countryside, whose daily life had been totally disrupted, also shows what the practice of making fabric masks in times of crisis provides (i.e., the satisfaction of being useful). Several respondents mentioned the pride they felt, in terms of both being creative and receiving positive feedback.

In a way, the practice was supported upstream by the desire to contribute to the community and then downstream by the satisfaction and positive feedback derived from it. It should also be noted that only one person out of 343 said that she had sold masks, but significantly enough, she was a professional dressmaker. On the contrary, several respondents indicated their refusal to be paid for their personal production. Nevertheless, the market was neither rejected nor bypassed, for the good reason that the standard market for masks was not working anymore. More specifically, our informants refused to contribute to the existence of a new market by giving away their production instead of selling it, although the niche market for industrial fabric masks had subsequently been created. The lack of a market and the desire to avoid the creation of a new one, associated with the logic of solidarity and the production of social ties, occurred in a brief period corresponding to the shortage of masks in France in the beginning of the pandemic.

**A flash-like practice: why homemade mask production quickly vanished**

So far, we have documented why and how mask making flashed in terms of a sudden appearance. We now have to explain why the practice also flashed in the sense of an almost as fast disappearance. The first reason may be evoked in terms of barriers to adoption. For example, tens of respondents stated that they wanted to self-produce their masks but failed to do so or suspended or aborted their project. See, for instance, Fabienne’s testimonial:

> Being locked-down, I don’t need it, but I would make it if I had the necessary materials. I will try to make one, but being in transitional housing, I don’t have all my sewing supplies. (Fabienne, 66, retired, W1)

The most commonly reported reasons for giving up were the lack of sewing skills, the inability to purchase the necessary supplies, or the limited interest in engaging in this DIY practice due to the expected short time it would take for traditional supply channels to resume operations. This finding reveals how self-production, whatever the important causes attached to it, can be difficult and discouraging for many people.

Besides, several respondents reported laundry-care burdens, with the need to wash masks at 60°C—a constraint often interpreted as highly problematic:

> During the lockdown, I made two fabric [masks]. The 60-degree washings are not practical, so I don’t use them. (Virginie, 31, specialist educator, Tarn, W2)

The detachment from homemade masks was further encouraged by the growing concern about discomfort (thickness, heat) and use issues (inappropriate elastic bands, masks sliding down). Indeed, the mention of such concerns more than tripled from Wave 1 (first lockdown period) to Wave 2 (post-lockdown period), as the mask experience was repeated (see Figure 1).

The second reason behind the decline of mask self-production is that the practice was too recent to fully settle in. Based on the testimonials, the number of self-reported producers of homemade masks also decreased considerably when the lockdown ended and people resumed their routine occupations. Returning to work effectively reduced the amount of time that people could devote to mask crafting. In their testimonials, some respondents reported how time-consuming this activity could be, with several of them spending a whole day to produce a single mask. While this practice was a way to pass the time or do family-oriented workshops during the lockdown, it became less enjoyable when returning to more constrained school and work contexts and schedules. The practice was thus losing its practitioners, who were progressively disengaging from
exclusive self-production and starting to diversify into the store-bought types of masks.

The third reason behind the decrease of mask self-production was its obvious dependence on market fluctuations and public discourse. As the commercial supply of masks regained ground, the role and importance of homemade masks diminished. It seemed that for a new time-consuming practice that was not rooted in habits, it was difficult to face the competition from easier, ready-made solutions. The comeback of commercial masks was paralleled by official statements that stressed the lower efficiency of fabric masks. On June 2, 2021, the Haut Conseil de Santé Publique (High Council of Public Health) recommended abandoning homemade fabric masks because of their poorer filtering performance in the face of new SarsCov2 variants. Because the use of masks was intended to protect not only oneself but also others, it placed a great deal of responsibility on those relying on a very idiosyncratic view of risk and encouraged the adoption of official recommendations. Overall, what had been thought of as an alternative to the shortage of standard masks played the role of a transition practice. Indeed, self-production can be perceived as a bridge between scarcity and abundance, discovery and routine, and threat and reassurance.

Stabilizing the practice of wearing sanitary protection gear required the acquisition of a range of masks that would help in avoiding the logistical difficulties associated with laundry care. The respondents were more likely to purchase fabric masks to compensate for the poor quality of their own production (logic of substitution) or to complete their mask set (to have a ready supply between washing cycles and to have more latitude in mask maintenance). Our research reveals both the transitory nature of self-production and the conservation of self-produced masks over time that, alongside commercial masks, formed a system for the user:

I first made my own fabric masks. The first ones were made of leftover fabric, very unreliable because of my lack of confidence. I am indeed a poor seamstress. I sewed my pieces tightly and made many attempts to place the elastics. The second try was made with denim-fabric scraps. It was better, since I had figured out how to install the elastics. These masks are my favorites... And finally, not long ago, I bought a set of masks in a pharmacy, lighter than mine... Since the temperature has risen, my fabric masks are too hot. So, I have switched to the masks bought at the pharmacy. (Caroline, 47, unemployed, Var, W2)

This long quote illustrates how the practice flashed. In the beginning of the health crisis, people were pursuing the project of masking themselves at all costs. At this stage, the means were far from having a sustainable perspective. However, commercial masks soon complemented—and then replaced—homemade ones. According to the testimonials, either all masks (of any kind) were simultaneously used or the fabric ones were quickly abandoned. As soon as surgical masks became available again, a substantial proportion of self-producers tended to shift to them. The decreasing prices of commercial masks, combined with the ease of acquisition and use due to their ready-made and disposable nature, favored surgical masks and thus the vanishing of their homemade counterparts.

In this respect, it is interesting to point at the emergence of what we call a wardrobe effect, that is, the storage of a heterogeneous set of masks at home. For the vast majority of our respondents, homemade mask production did not exclude their reliance on alternative solutions. This wardrobe effect enabled users to align the qualities (safety, breathability, and practicality) of their different masks with the situations they faced during their outings (climate, overcrowding, intensity of exposure, esthetics, and symbols). Here, we deal with a phased (or staged) adoption model involving different generations of masks.

The variability of the mask-selection process is not simply an issue of practical adaptation to locational characteristics and the environmental conditions in which masks are worn, but it is also a matter of evolving meanings and symbols attached to different types of masks. Indeed, from the beginning of the pandemic to the end of the first lockdown, seeing someone wearing a surgical mask (at the peak of the mask shortage) suggested that the person had symptoms of a COVID-19 infection (he or she had possibly been prescribed this mask by a doctor). In contrast, the homemade mask was much more reassuring at that time:

I have a completely different representation of the disposable protective mask which, in my opinion, stigmatizes people (is he or she contagious?), and of the fabric mask which is being worn more and more and which arouses less fear of the other... The impression [is that] of being with a person who is foremost protecting other people’s lives while protecting her own. (Jeanne, 58, head of a university administrative service, Haute-Garonne, W1)

This differentiated representation of the two types of masks was completely reversed later, as the following quote shows it well:

As I am a librarian and have to work at the reception desk, I wear disposable surgical masks during these periods. I think they are more appropriate, more effective, and I find it more professional vis-à-vis the institution. (Julie, 38, librarian, Alpes-Maritimes, W3)
We thus observe a reallocation of the meanings attached to the two types of masks (and a displacement of the stigma). While the surgical mask is currently associated with maximum safety for social relationships, it was linked to danger in the beginning of the pandemic (due to a strong suspicion of the presence of the virus). The fabric mask has followed a diametrically opposed trajectory, from being a reassuring tool to being a matter of concern, especially when its effectiveness against the Alpha variant was questioned by scientists, experts, health authorities, and the government.

**A short-lived practice: the minimal presence of environmental concerns**

Last but not least, it is worth noting that homemade mask producers paid little attention to environmental issues. In this respect, the flash practice may be presented as short-term focused, to the extent that most practitioners privileged emergency concerns and disregarded the sustainability dimension of their realizations. Of course, several testimonials presented disposable masks as problematic in terms of pollution. There were complaints about “irresponsible people disposing of their used masks everywhere” and “enormous pollution” (Juliette, 54, housewife, Calvados, W2), “masks abandoned in streets, green spaces, ditches” (Brigitte, 64, retired researcher, Haute-Garonne, W2), and masks “lying around on the ground” (Nathalie, 39, web designer, Alpes-Maritimes, W2). However, these testimonials framed the environmental concern as an immediate and visual issue. They took the form of a moral condemnation, under the category of the intolerable and the unbearable. In other words, disposable mask users were accused of engendering problematic outcomes—unwanted litter, visual pollution, and waste of a scarce resource in a shortage situation.

In this regard, mask littering was presented less as an environmental problem and more as a visual disgrace, a physical disorder, or a “matter out of place” that defies standard categories of cleanliness and hygiene (Douglas 1966). While journalists and experts have discussed the problem of environmental pollution, the respondents were less concerned about the mask as polluting the environment. The respondents overlooked this aspect all the more when they often thought that surgical masks were made of paper instead of polypropylene.

I quickly shifted to paper masks once they were available for the general public. (Patrick, 31, professional translator, Puy-de-Dôme, W3)

Because of their malleable and cloth-like texture, disposable masks are not as easily identifiable as other plastic and synthetic objects; people might see them as similar to biodegradable paper handkerchiefs.

In the testimonials, ecology was a discreet concern. Of course, some people explained that they used some masks but not others “in relation to ecology” (Sandrine, 40, unemployed, Isère, W2) and that some masks were “not ecological” (Véronique, 58, researcher, Mayenne, W2). The image of planet Earth was also mobilized, that is, “we forget ecology and the planet” (Pascale, 65, retired medical staff member, Aveyron, W1), and “I respect our planet” (Monique, 72, retired, Aube, W2). These concerns were expressed in the name of a general, abstract, and ideal-typical entity—environmentalism. Compared with the preceding comments, which problematized the immediate and visible effects of disposable masks, the statements about environmental issues positioned masks within a larger, more philosophical, and ethical framework. The environmental concerns were not only materially situated—“fabric is an ecological means” (Juliette, 54, housewife, Calvados, W2)—but also perceived as part of collective decision making. “Disposable masks should not be a durable decision; we must think about efficient and durable protections” (Charlotte, 35, technician in organic farming, Lot, W1).

Environmental concerns were voiced in terms of both the conditions leading to the fabrication or use of a specific kind of mask and of the (negative) consequences of some kinds of masks and their uses. Stated differently, the environment materialized before the use of masks, when people “[did not] buy disposable masks for ecological reasons” (Viviane, 70, retired, Gard, W2), as much as it materialized after the use of masks.

After this pandemic, the end of which we do not know, pollution by these used masks will be enormous. (Juliette, 54, housewife, Calvados, W2)

Nonetheless, the aforementioned testimonials were exceptions; most homemade mask producers did not mention the environmental dimension of their practice. This minimal presence of environmental concerns in the reflections of homemade mask producers sharply contrasts with the frequent association between DIY practices and environmental care as part of the circular economy, the quest for alternatives to the consumer society, and the will to avoid polluting practices (Salvia and Cooper 2016). This neglect is fully understandable; as we noticed, mask crafting at home was first driven by matters of vital urgency in the shortage context. In other words, most people made masks without acknowledging their environmental potential and quickly reverted to plastic alternatives, without realizing the latter’s threat posed to the environment.
Discussion

This article illustrates the relevance of practice theory for analyzing practice work concerned with disruptive events and sheds light on the temporal dynamics of practices. To further underscore our findings, we elaborate on the three key contributions of our study.

First, we observe that in life-threatening emergency conditions, mask making is a very specific form of practice. It is neither a routine behavior nor a chosen one but rather a gesture imposed by circumstances that have come as a shock and have taken people by surprise. In particular, the risk of illness and even death introduced by the virus was soon reinforced by the shortage of commercial masks, which at that time, was one of the rare means available to protect oneself from the pandemic (along with social distancing, hydroalcoholic gel, and plastic screens). Contrary to the management of disasters addressed by Zurcher (1968, 283), in the mask case, no “emergency ad hoc social structure” was available, and no call for a coordinated intervention crew was made; only the shortage of the device worked as an incentive. Consequently, the pandemic threat and the mask shortage led people to rely first on household-based resources and then on larger online networks; the issues also made them more reactive and reflexive, along a pattern well-identified by practice theory when dealing with disruption contexts (Chappells, Medd, and Shove 2011; Brons, Oosterveer, and Wertheim-Heck 2021). People were led to act according to situated feelings, or concerns. By concerns, we mean practice-embedded preoccupations that combine local urges and personal worries (triggered by a perceived high-risk, life-threatening context) with larger stakes, including the care for others and the world at large (Latour 2004; de La Bellacasa 2011; Geiger et al. 2014).

This brings us to our second contribution, addressing practices that flash. The first flash aspect is the near-instant coupling between household-centered and larger collective efforts. As we have observed, people synchronized their actions they almost immediately linked their household-based patterns with collective learning, network-driven undertakings, practice sharing, and mask giving on a larger scale. In some respects, the flash dimension amounted to the longstanding attention of practice theory to time, as expressed in the following quote:

[The theory of practice] allows us to grasp the temporal dimensions of social practices by giving an account of the way in which the constraints of coordination structure the rhythms, making certain activities non-negotiable fixed points. Beyond the simply subjective character of the notion of time (more or less accelerated, more or less stressful), we must also take into account the control that individuals have over the organization of their time. (Dubuisson-Quellier and Plessz 2013, 13–14, authors’ translation)

However, the temporality of the crisis sharply contrasts with the rather continuous and slow change that characterizes routine-like practices, such as cooking, walking, driving, and so on. As mentioned at the start of this article, most studies on practice theory tend to view social settings as marked by strong inertia, as if people and practices were slow to adapt to changing social conditions or unexpected events. In contrast, our case suggests that in very specific conditions, practices have an incredible capacity to adapt and even be reinvented almost immediately. This is the very principle of the flash practice that appears and disappears almost in the blink of an eye. In such a process, the pandemic context played a driving role. It materialized as a sudden event, required quick responses, and led to rapid evolutions. In this respect, mask self-production can be described as a “one-time,” quickly changing, and often ephemeral “proto-practice” (Shove, Pantzar, and Watson 2012). A standard definition of practice is that of “a routinized type of behavior,” bringing together bodies, thoughts, things, and various kinds of knowledge (Reckwitz 2002, 249). In contrast, the flash-like practice is neither routinized nor stabilized; it is only partially formalized and moreover, ephemeral.10

The sudden and synchronous enactment of the same practice in different places has tremendous consequences. In the beginning, with no coordination framework, except that of the event and its echo on the media, the practice relied on household-based initiatives. However, the fact that innumerable people in different places engage in the same activity at the same time makes them act to the same rhythm and realize that they have the same purpose; the flash practice becomes similar to a flash mob (Molnár 2014; Al-Khateeb and Agarwal 2021). This synchronous experience transforms ordinary consumers into lead users (Von Hippel 1986), opens up collective productions, and gives rise to an excitement that serves as a reminder, in some respect, of the kind of collective effervescence that Durkheim (1915) described for some religious rites.11 On one hand, the flash sharing of the same activity unites and energizes the participants; it leads them to share their experiences and to turn their private, household-based undertakings into network-like and sometimes collaborative contributions. On the other hand, such sharing is a flash one; it disappears as soon as the surrounding circumstances evolve and thus as the initial impetus vanishes. Overall, if the practice flashes, it is for collective reasons from the start to the end. The collective
dimension synchronizes the movement and gives it momentum, but the collective underpinnings of the practice, such as public policies and market fluctuations, disperse and dissolve the synchronized effort.

Finally, the mask-making flash practice is a short-lived one. Because it focuses on instant needs, it tends to limit itself to immediate urges and thus to overlook its potential for addressing long-term issues, such as the contribution of homemade reusable cloth masks to sustainability. Mask makers did not reject the latter dimension but seemed to overlook what may appear obvious (and desirable) to an outside observer. This said, the adaptability and energy that drive such practices could, if better identified and channeled, help advance political goals.

**Conclusion**

Our study has shown that the self-production of masks is a specific type of practice that we have proposed to label a flash practice. Of course, the flash dimension should be understood as hyperbolic and metaphorical: mask self-production was not as sudden, synchronized, and brief as a flash mob. Nonetheless, the temporality of this practice is closer to that of a flash mob than to the pace of more customary practices, for instance, cooking a meal or driving a car. Because it was driven by an immediate threat, the flash practice first relied on household-centered conducts. In the beginning, people attempted to produce their own masks, mostly because of health-related reasons and in the context of isolation under lockdown conditions, due to the urgent need for and scarcity of mass-produced masks. While these concerns were most prominent, the sense of collectivity and solidarity was also expressed as a reason for producing and donating specific kinds of masks on a larger scale. In other words, the household-centered practice almost immediately shifted to a collective effort. However, concerns about pollution, sustainability, and ecology played out less importantly even though they increased, as masks gradually became everyday and familiar objects. We have shown that while the self-production of masks clearly disturbed and reshaped people’s daily routines, this practice became increasingly normalized, standardized, and certified over time.

Based on our study, readers may wonder whether mask self-production contributed to orienting practices toward a more sustainable approach to sanitary behavior, even involuntarily. On one hand, the spread of sanitary masks epitomizes the disposable society (Gavin 2002) and its problematic unsustainable character (the masks are unsustainable environmentally, given the new waste generated, and are unsustainable practically, given the physical and social discomfort associated with them) (Lee et al. 2021). On the other hand, mask self-production and the related spread of fabric masks could potentially engender more ecological and more sustainable practices and thus pave the way for the kind of more sustainable consumption that the pandemic could hopefully foreshadow (Cohen 2020). However, the testimonials show that the concern for sustainability played a minimal role in mask self-production. This does not mean that people were careless or unreflexive, but it does show that they cared about highly diverse matters and that the environment was at best a concern among many others, most of the time with remote or little importance, overshadowed by more immediate and pressing issues. Mask making promotes environmental sustainability, but it does so as a side effect, as an unwanted positive externality (i.e., reusable devices, reduced waste, no plastic pollution). Regardless of how disappointing they may seem, these phenomena cannot be overlooked. Awareness of the scarcity of sustainability concerns behind the production of a sustainable device helps in understanding that a good cause, such as environmental protection does not automatically lead to obvious conscious behaviors. It helps to think about what should be done to alleviate the burdens of DIY practices and use environment-friendly goods, thus favoring virtuous behavior. It also allows us to avoid idealizing DIY practices and people’s competencies. As we have witnessed, traditional manufacturers are not replaced, materials and skills can be difficult to mobilize, and homemade goods can be less practical than their disposable counterparts. Bringing together bodies, motivations, objects, and knowledge to produce one’s own masks is not such an easy task. As we have found, DIY practices are fragile.

If these practices developed at the heart of the crisis, they gradually dissipated and declined. This has led us to reflect on the lack of longevity of concern-oriented behaviors and on the difficult routinization of flash-like practices. However, this fragility can be partially and temporarily overcome by creating communities of practice, patterns, and standards; by launching new initiatives on social networks; or by sharing sociological knowledge with the practitioners themselves. Overall, examining flash practices allows us to understand when and why such practices emerge and thus to initiate comparisons with other, more durable practices. Because such practices “flash,” they can quickly fall into oblivion, and we could consider that it is the role of practice-theory researchers to document them in order to keep this memory. Knowing more about

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flash practices could sensitize practice-theory researchers to such objects and thus enrich their conceptual apparatus to address future topics and challenges. For instance, it would make sense to check whether the decline of such practices is an artifact of the short-term focus of the research itself or not. In order to do so, it would make sense to study, over the longer run, if what once “flashed” did not completely vanish, but instead possibly spread discreet seeds for its further reactivation.

Notes

1. In a recent study based on the methodology of life cycle assessment (LCA), Bouchet et al. (2021) show that “the environmental impact of single-use masks is the most unfavorable, with a Global Warming Potential (GWP) of 0.4–1.3 kg CO2 eq. [kilograms of carbon-dioxide equivalent], depending on the transport scenario, and a Plastic Leakage (PL) of 1.8 g [grams], for a one-month protection against COVID-19. The use of home-made cotton masks and prolonged use of medical masks through wait-and-reuse are the scenarios with the lowest impact.”

2. We thank one of the reviewers of an earlier draft for suggesting the latter developments.

3. We slightly reformulated this invitation from one wave to the next to entice respondents to focus on the changes. For instance: “Tell us freely about your current experience with masks and possibly how this experience has evolved over time.”

4. See https://datacovid.org.

5. We used the Iramuteq software. The graph is based on a chronological Reinert classification of the corpus. For more details, see https://www.scielo.br/j.

6. W1, W2, or W3 indicates the wave of testimonials (Wave 1, 2, or 3, respectively) from which each quote is taken.

7. See https://www.service-public.fr/particuliers/actualites/A14041.

8. We thank Sophie Dubuisson-Quellier for suggesting this additional argument.

9. As surprising as it may seem, another very discreet aspect is fashion. The low presence of aesthetic concerns in our testimonials underlines further the overwhelming prominence of the care for immediate practical issues during the beginning of the pandemic.

10. In addition to time, space also plays a prominent role, for instance, via the opposition between home-based and factory-based mask production.

11. A spectacular contemporary example of such mobilization is the “trash tag challenge,” an international mobilization where people were invited to clean a public space (a beach, a street, a forest, etc.) and post before/after photographs on Twitter (https://en.wikipedia.org/wiki/TrashTag).

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