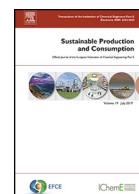




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Opinion Paper

## What POST-COVID-19 lifestyles may look like? Identifying scenarios and their implications for sustainability

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### ABSTRACT

The COVID-19 pandemic has deeply disrupted society's priorities and individuals' lifestyles with major implications for sustainable development. Economic shutdown and social isolation reduced society's ecological footprint by lowering transportation and industrial activity while prompting families to engage in non-commercialized modes of leisure and social relations. Yet economic recession has intensified problems of under-consumption and poverty, while social isolation has worsened physical and mental illness.

The pandemic's short-term effects are visible to everyone experiencing it, yet the global health crisis will also have long-term effects which are presently unknown but whose configurations can be spotted by identifying scenarios based upon individual relations with their material, symbolic and social environments. This perspective article reviews changes in two critical domains of practice: consumption and social relations, based on a theory of scarcity, and proposes an approach to foresee post-COVID-19 scenarios across several areas of social practice. The experience of scarcity in consumption and socializing redefines priorities and values yielding two ideal-types of responses for each domain: the assimilation of reduced levels of material wellbeing and social interactions or the drive for self-indulgence to compensate sacrifices in those areas.

Four different lifestyle scenarios are thereby generated based on that analytical framework, enabling the identification of long-term scenarios, beyond the simplistic old normal versus new normal dichotomy. Grounded in available secondary data and relying on the recent Brazilian experience, which can be generalized to other Global South contexts, this proposed framework illustrates distinctive behavioral patterns for each lifestyle across ten areas of practice.

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### 1. Introduction

The COVID-19 pandemic resulted in a major reshuffle in the way in which people carry on their personal routines and projects. The triple shock of declaring a public health emergency, imposing an economic shutdown and the combination of social isolation and physical distancing became the standard response to contain the spread of the virus, all measures with lasting consequences in how people perceive and conduct social practices. Nearly all domains of practice have been affected, from working to studying, from entertainment to shopping, from socializing to family life and love relationships, from the meaning of household and living habitats, to our perceptions and expectations of citizenship. What will post-COVID-19 futures look like in terms of lifestyles? What scenarios can be anticipated concerning the ways individuals live as an out-

growth of that triple shock? What implications will these changes have for progress towards sustainable modes of consumption?

This article offers an analytical framework upon which to outline specific lifestyles scenarios described as summaries of how certain social practices are enacted. This outline sheds light on the implications for sustainability resulting from counter-pandemic policies and derived social changes. This article reviews developments, effects and potential scenarios unveiled by the pandemic in two major domains of practice: consumption and social connection. It does so by focusing on secondary data and observations that describe the case of Brazil, in order to illustrate how Global South contexts underwent the ongoing shocks and their consequences, environments usually overlooked in the literature that is mostly focused on developed societies of Europe and North America (SSPP (Sustainability: Science, Practice and Policy) 2020). Furthermore, rather than relying solely on aggregate data like practice theory-framed literature has done (Boons et al., 2020), this study also uses individual-level data collected through survey research,

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thus factoring in individuals' perceptions of their situation, their understanding of the challenges and ongoing changes as well as their subjective recognition of new habits and procedures.

Sustainability scholars hail the pandemic as a potential catalyzer of changes to make progress towards an environmentally sounder, socially more fair and ethical future (Cohen, 2020). The crisis creates a rare opportunity for engineering a sustainable transition based on both individual shifts in lifestyles and a multi-stakeholder policy-based build-up of systemic-institutional reforms towards a broader, low-carbon arrangement (Markard and Rosenbloom, 2020). For organizations engaged in the promotion of sustainable development, the COVID-19-related watershed of changes bring both horror and hope. Government measures leading to short-term tangible environmental dividends such as pollution decreases (LeQu ere et al., 2020) have offered hope, while also revealing that systemic change away from continuous consumerism and work-spend treadmill lifestyles falls within the will and range of policy-makers (Anantharaman et al., 2020). Regrettably, counter-pandemic measures also unsettle sustainable development goals, once progress against poverty and misery reverses for the first time in 30 years (The Economist, 2020a), while leaving millions of children without access to education. Social isolation, in turn, aggravates mental and physical illness (Torales et al. 2020; Banerjee and Rai, 2020). Lastly, health prevention protocols upset the efforts to reduce dependence on both plastic usage (Mehta, 2020; The Economist, 2020b) and individualized forms of mobility (Corwin et al., 2020). This is just to name few occurrences with serious sustainability consequences.

This article is organized in seven sections, in addition to the Introduction. Section 2, after the Introduction, offers a description of the triple policy shock affecting the economic situation, social life, and the notion and experience of health as a result of declaring the public health emergency and anti-contagion protocols. These interventions led to the acceleration of trends, deceleration of other trends, and the emergence of surprising developments, which are discussed in section 3. Section 4 summarizes changes in the fields of consumption and social connections, which affected their volumes, procedures and contents. The next section introduces a theory of scarcity. Section 6 offers an analytical framework to base post-COVID-19 scenarios by identifying two ideal-types of responses in connection to consumption and socializing needs. Subsequently, four different future lifestyle scenarios are drawn based on the intersection of ideal-type responses in ten domains of practice, providing a map of behavioral repertoires. Section 8 offers conclusions with a synthesis of the positive and negative implications for sustainability of current changes in the consumption and social connection spheres and highlights the contribution of the framework proposed to generate hypotheses and contribute to the future research agenda.

## 2. From sphere interventions to impactful trends

Governments responses to the virus outbreak vary, but they generally involved three steps: declaring a public health emergency, requiring or strongly advising the isolation of individuals to prevent contagion, and freezing economic and social activities that could lead to human agglomerations. Individuals were subject to an unprecedented triple process of redefinition of the contextual conditions where behavioral repertoires used to take place, which, in turn, paved the way for changes in social practices. Around the globe, these policies disrupted individual lifestyles and the organization of everyday life, affecting the odds of embracing hard-fought acquired sustainable behaviors (like reduced dependency on disposable plastics) but also opening opportunities for switching actions towards a more responsible, lower footprint way of living (like reduced impulse consumerism or reduced dependency on in-

dividual car-based mobility for work or leisure). In other words, these interventions reinforced the pivotal role of government and the State in removing barriers and enabling favorable conditions that affect the odds of adopting responsible repertoires into current lifestyles (Axon, 2017; Mont et al., 2014).

Establishing self-administered anti-contagion efforts and daily hygiene as essential activities was one feature of this process. This entailed a change in values once cleanliness was not only placed at the core of all interaction behaviors but its traditional notion was expanded beyond customary meanings of aesthetic quality, freshness, or moral purity (Neves 2004) to new meanings equivalent to safety, comfort, and wellbeing. This policy modified concepts and perceptions (by detaching the idea of wellbeing from notions of affluence or subjective plenitude and shifting it to a status of disinfection and defensive, health-centric conformism) as much as behaviors. The latter was clear in trends towards larger purchases of so-called "essential" items related to home cleaning and bodily hygiene ((McKinsey & Co 2020)). In Brazil, this redistribution of expenditures towards these line of products was particularly acute given the absence of sewage systems and running water in 15% of households, affecting 31 million Brazilians (IBGE, 2019), a fact that structurally constrained the enactment of new behavioral protocols, and forced individuals to deal with systemic limitations through personal choices.

Anti-pandemic measures forced withdrawal from many economic activities or, alternatively, the reinvention of economic life through non-agglomeration modes like e-commerce. In practice, the sudden economic shutdown ordered by governments spawned a generalized stoppage of commercial activities representing an experiment in non-consumerism as much as an environment propitious to financial hardship and bankruptcy. Surveys in mid-April indicated that for 6 in 10 Brazilians income decreased while half of total population acknowledged a rise in expenses ((McKinsey & Co 2020); OpinionBox, 2020). By end of 2020, the economic toll of the counter-pandemic measures remained huge as a combined result of record unemployment, cuts in wages and reduced government aid, and the lack of business recovery in many sectors (IBGE, 2020a; PoderData, 2020; CNC, 2020). Financial difficulties and unemployment hit lower social classes and non-white groups the hardest (Ag ncia Estado, 2020), yet surveys show that nearly 4 in 10 upper middle segments also had to stop paying bills due to lack of funds (OpinionBox, 2020).

Workers in the formal economy underwent unemployment, furloughs, or reduced paychecks (IBGE, 2020a). These hardships affected 53% of Brazilian families, more harshly among those of lower income (65% of families from segments C2DE, cf. IBRE/FCV, 2020). This impact reflects the limited reach of work-from-home schemes, which only a minority of employees (2 in 8) are able to follow (Mercer Consulting, 2020), mainly including those who belong to middle and upper social classes (OpinionBox, 2020). Concomitantly, telework increased home utility expenses. Informal labor, which in Latin America accounts for over 50% of employment (with self-employed individuals comprising about 2/3 of that rate) performed even worse, losing subsistence revenues due to lockdown measures.

Social isolation and physical distancing mostly in the form of home confinement characterized the third approach to fight COVID-19. These measures caused a "social recession" as it brought face-to-face inter-personal interaction to its minimum expression except among other household members, with social connections eventually migrating to the internet-mediated online sphere. Brazilians were far from embracing quarantine measures strictly; nonetheless, nearly 8 in 10 adopted total or substantial social isolation actions, the latter following stay-at-home except for food provision or other emergencies (OpinionBox, 2020). Social life managed through internet represents lower emissions from mobility or

outdoor consumption, yet brings poorer quality of life and reversals in mental and physical wellbeing.

Policies render an ambivalent legacy for the popularization of sustainable lifestyles. On the one hand, they suddenly upset systemic barriers that had previously prevented lower footprint behaviors at a wider scale such as the reliance on individual mobility to fulfill work or study or social obligations. On the other hand, they conditioned ways of living dramatically by limiting forms of socializing, learning, developing or consolidating relational and emotional skills or wellbeing, or exercising citizenship. All these factors undermine any optimism about the pandemic's consequences for sustainability over the long term. In other words, agents acting as enablers of sustainable practices with environmental dividends may also build new, unexpected barriers that compromise sustainable wellbeing from a social and psychological perspective (Axon, 2017; Mont et al., 2014).

### 3. Accelerating, decelerating and innovative trends

Policy interventions to deal with the virus outbreak led to the acceleration of ongoing trends, the reversal or deceleration of previous developments, and the emergence of innovative tendencies that mold both the perception and enactment of practices and its integration into current individual lifestyles. Policies have a bearing on the odds for success of integration of sustainable norms and repertoires into lifestyles through their effects in intensifying, decelerating or catalyzing behavioral tendencies.

Innovative trends involve radical changes that previous research or literature has not foreseen. For example, the blurring of boundaries between household, workplace, shopping platform, space for studying, fitness center, and leisure area. To the contrary, sustainable lifestyles approaches to housing and cities clearly favored a model of small residential spaces with livable, out-of-home locations for working, eating, entertainment, or studying (Wilson and Boehland, 2005). Lockdown places home at the spatial center of everyone's lives, turning it into the sole setting for multiple functions for which it was not originally planned. Similarly, few would have anticipated living life so physically distanced and socially isolated, except for groups like the elderly. Overnight isolation turned into a new social norm; if it is true that living alone rewards individuals with lower contagion odds, it also represents a regression in sustainability terms as single resident units have a higher carbon footprint than shared living (Koide et al., 2019; Williams, 2002). These movements combined anticipate that activities previously performed out-of-home will now be entirely home-based, while social ties and social life are circumscribed to a smaller and more intimate circle of trusted (clean-reliable) contacts.

Accelerated trends refer to developments already in motion before COVID-19 that scaled-up and intensified during the pandemic thereby reaching mainstream status. One example is the digitalization and remote engagement of both functional and emotional spheres of life, forcing an internet-mediation of activities that displaced online navigation from the periphery to the core. Work, leisure, study, shopping or love were already operating in internet-embedded environments, with the entrenched characteristics of remoteness and multi-functionality. Parallel to this, gamification of content from entertainment, social life and education, was amplified, merging virtual socializing and remote learning with immersive technology. In pre-COVID-19 times, research already suggested digitalisation as a driver for sustainability (Kiron and Unruh, 2018), not without warnings about rebound effects and underestimated risks to the environment (Gensch et al., 2017). Concomitantly, quarantine measures enable a regression towards heightened individualism and giving priority to ownership rather than access or utilisation due to fears of contagion, which stimulates single-user,

possession-oriented preferences from mobility to household appliances.

Deceleration trends refers to reversal of previous developments in motion, by either slowing down or seriously neutralizing past progresses. This affects the circular economy and collaborative consumption, once reusing, repairing, or sharing goods with others is equated to a potential source of contagion (Hossain, 2020). In turn, these reversals unsettle trends towards minimizing a throw-away mentality, favoring irresponsible disposal behavior. One consequence is the comeback of plastic, individualized single-use recipients and utensils (The Economist, 2020b).

### 4. Impacts on consumption and social life: changes in volumes, procedures and contents

The pandemic has seriously affected practices of consumption and socializing among individuals. Major changes in terms of volume, procedures and content took place in these two domains of practice. Economic shutdown and social isolation coupled with physical distancing policies blocked the enactment of both activities, forcing behavioral changes through structural and institutional interventions that changed the context in which decisions are made (Axon, 2017). These interventions abruptly suspended some of the most challenging barriers to making substantive progress towards sustainability as identified in the literature (Axon, 2017; Mont et al., 2014).

The ensuing drainage in personal finances affected net volumes of consumption together with a substantive redirection from durable and non-essential goods during pre-COVID-19 times to essential, food-staples and home cleaning products ((McKinsey & Co 2020)). Surveys in mid-April indicated that 2/3 of Brazilians avoided expenditures in non-essential items, while an additional ¼ intended to do likewise (OpinionBox, 2020).

Similarly, stay-at-home practices significantly reduced social interaction and inter-personal connections, causing social life to wither. Google community mobility reports indicate a drastic reduction of displacement patterns during the first 60 days of quarantine, with lower displacements equivalent to reduced human interactions (Ritchie, 2020). Reports by InLoco mobility app pointed in the same direction (InLoco, 2020). Light or zero social distancing were followed by between one in three to four citizens (Datafolha, 2020; OpinionBox, 2020) thereby suggesting that vast majorities seriously decreased their amount of social contacts with others not residing on their same premises. This is even more drastic for people living in single-resident units, which in Brazil totals 15% of population or about 12 million individuals, over half of them aged 60 years old or older (IBGE, 2020b). Increases in feelings of loneliness and isolation among Brazilians (Ipsos-MORI, 2020) also reflects the spread of social distancing, which conveys an indication of lower volume of inter-personal interactions (Brooks et al, 2020).

In addition to changes in volumes, procedures for consuming and socializing underwent major shifts. Modes of shopping and consumption massively migrated from in-store, in-person to the usage of online channels and home delivery. Eating out in restaurants and frequenting cafes (which accounted for roughly 1/6 of meals and 1/3 of total spending in food) met a sudden halt. Online purchases expanded over 40% for supermarket and drugstore buying (OpinionBox, 2020), with 1/3 of Brazilians relying on e-commerce for the first time (Comscore, 2020). Consumers of niche products such as organic food and direct-from-producers purchase networks migrated from street-fairs and specialized shops to messaging apps (Lopes et al., 2020).

Different procedures of social relations resulted from the quarantine too. Even for those living with others, internet-mediated connections became the rule for maintaining social life active

as usage of communication and video-messaging apps zoomed up (Comscore, 2020). Social connectivity thus shifted to online platforms with record downloads of Zoom and TikTok (CorreioBraziliense 2020). Conversely, offline socializing with the outer world remained feasible for those with balconies that occasionally play the role of external living rooms to chat with neighbors. Offline social interactions also occurred among those living in overcrowded slums and tenements that hardly enable social isolation.

Lastly, consumption and social companionship experienced substantive changes in terms of content, or goal-fulfillment. Consumption is usually connected to utilitarian functions of satisfying needs (more clearly represented in food provisioning) and purposes of social distinction through status symbolization or signalling (Jackson, 2005). Likewise, social interaction embodies an instrument for fulfilling needs of social identity and social esteem. Under the pandemic, as consumption and social companionship become in short supply, both practices called for a revision of goals.

Antiseptic priorities driven by contagion fears resets the role of consumption. Needs satisfaction are redirected towards sustaining a defensive prophylactic status concentrating resources into essential foods and home cleaning products. Social contacting, in turn, is drastically reconceptualised in negative terms. While it potentially brings emotional and cognitive realization and wellness, it also represents a threat to personal wellbeing, as others become potential vectors of disease (Abel and McQueen, 2020).

Furthermore, financial distress and social isolation render the display of status symbols superfluous and inconsequential. In fact, status display through conspicuous consumption becomes irrelevant when no physical meetings occur. Status signalling does not stop but requires adaptation to the online atmosphere. Prior crises, for example, revealed shifts from material possessions to conspicuous conservation, using eco-friendly and ethical status markers (Griskevicius et al., 2010). Conversely, stay-at-home imperatives bring new value to social life beyond social comparisons, group belonging and conformity to social norms for identity reinforcement, once core goals of socializing are redefined in terms of emotional support, exchange of information, and recognition of affinities and shared values.

## 5. A scarcity theory of post-COVID-19 behavioral repertoires

Scarcity as a stressful life experience represents a driver of unexpected, exogenously imposed adjustments in habits and norms affecting specific generations (Zwanka and Buff, 2020). This effect results from human predisposition to attribute greater subjective value on those experiences and practices that exist in relatively short supply (Maslow, 1943). Scarcity shapes needs and scrambles priorities or values, particularly after a sudden change from a previously affluent equilibrium. Scarcity thus upholds an overwhelming socialization force capable of reshaping beliefs and behaviors (Inglehart, 1990). Literature points to numerous behavioral changes resulting from exposure to cataclysms characterized by sudden and generalized levels of scarcity. Risk-averse intensification reactions, migration from hedonism to utilitarianism in choice criteria, reduced overconsumption and overspending, or post-material beliefs that put a premium on self-expressionism, quality social interactions and a sense of belonging are just a few examples of how the consumption and socializing spheres are usually affected both in the short and long-terms (Zwanka and Buff, 2020; Inglehart, 1990).

## 6. Responses to scarcity in consumption and social life

The redefinition of conventional goals, procedures and volumes of consumption and social relations makes of consuming and so-

cializing the two scarcest experiences in society. Scarcity affects individuals' priorities and the perceived value of activities well fundamentally changes the context conditions in which behavioral choices unfold. We thereby propose an analytical framework that presupposes the reorganization of lifestyles based on opposing ideal reactions to the practices of consumption and socializing. This approach exceeds the simpler "new normal vs old normal" dichotomy that populates accounts and speculations about post-COVID-19 futures. Consequently, thinking ahead of the post-COVID-19 world, two opposing ideal-type responses are identified in each domain. Real-life situations may fall within degrees of each extreme. Still, these ideal-types help to map out future scenarios.

In terms of consumption, one possibility is a radical back-to-old normal type of response. This embodies a "consumer revenge" type of response, where delayed gratification and repressed consumption urges for compensation practices consisting in material goods accumulation. This might fuel conspicuous consumption back. The opposite response type consists of fulfilling needs through non-material goods and the valorization of frugality and sufficiency experienced during the quarantine. Previous crises also led to a reappraisal of ways of living in favor of less materialistic priorities and a generalized reduction of consumer volumes (Kennett-Hensel, Sneath and Lacey, 2012). This choice implies in the abandonment of material status markers and a rejection of the work/spend cycle treadmill, thus giving way to "post material frugality" type of response.

In terms of social companionship, one possibility involves a dive into a bodily sociability with others. This entails a "social diving" type of response by rushing into social and group situations, high physical out-of-home exposure aimed at recovering the human contact with others, erasing the deprivation experience of being left without affections and positive social emotions, and urgently compensating for frozen or repressed senses of identity and belonging. Alternatively, individuals may find comfort in living social relationships remotely, conveniently acclimatized to online interfaces for performing social life, weighting privacy and ease benefits stronger than the costs of solitude. This is the "internalization of virtuality" type of response.

## 7. Segmenting post-COVID-19 lifestyles scenarios

The inter-section of ideal-type responses yields four hypothetical settings or scenarios. Scenarios are stories about what the future may be like (Corwin et al., 2020). These are speculative narratives about how different individuals may engage in distinctive lifestyles given the dramatic conditioning experience underwent in terms of consumption and social relations. Based on available secondary data, four scenarios are drawn which indicate how ways of living are likely to be shaped as a result of ideal-type of responses. "Consumer revenge" confluence with "social diving" generates the "back to normal" scenario. This lifestyle profile highly values material consumerism and intensified inter-personal interactions. Under these conditions, the experience of scarcity accentuates old social norms by activating mechanisms to cope with the cognitive dissonance undergone during deprivation times. "Back to normal" is the result of a cognitive appraisal that overrates losses under changed conditions and solely conceives equilibrium as a regression to prior status in terms of consuming and socializing.

When the ideal-type reaction of "consumer revenge" meets a response-type of "internalization of virtuality", this breeds the "wireless materialists" lifestyle scenario. This profile favors a commercialized realization through acquisitiveness and social cocooning behaviors that minimize human connections. Trust in technology and a perceived satisfaction with online environments are presupposed to make the difference by lowering barriers to channelize

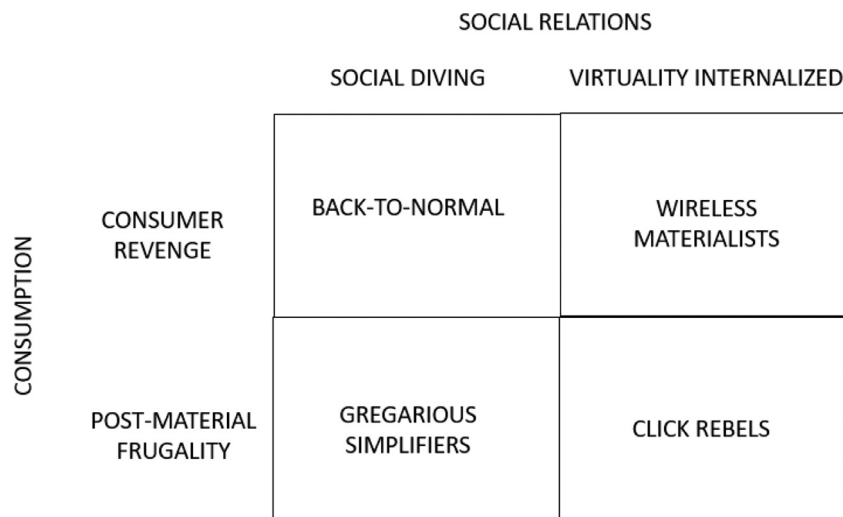


Fig. 1. Post-COVID-19 19 lifestyles scenarios

fulfillment of needs and wants through internet-mediated mechanisms in both domains of practice.

A third type of lifestyle scenario hosts those matching a “post-material frugality” response with a “social diving” reaction, which yields a “gregarious simplifiers” scenario. This profile embraces a low-carbon lifestyle and channels social identity through intense social bonding and community connection.

Lastly, a combination of “post-material frugality” with the “internalization of virtuality” stages the “click rebels” scenario. This lifestyle deemphasizes materialism as catalyzer of self-realization, while successfully transferring social life (as well as other key life practices) to virtual platforms. Fig. 1 illustrate these scenarios.

How will these emerging lifestyles reflect roles and goals across all major dimensions of life? What sorts of behaviors can one expect regarding work and leisure, studying and wellness, love relationships and social bonding, citizenship and goods provisioning, and what implications for sustainability will these raise in a world in which COVID-19 has been defeated or at least tamed?

Table 1 offers a summary of the lifestyle variations across domains revealing the favorable and unfavorable socio-environmental effects of the emerging behavioral repertoires. Given the comparatively higher contribution of social life to subjective wellbeing, compared to returns from material consumption (Etzioni, 2011), we can expect a lower environmental footprint and more socially responsible or inclusive behaviors from those embracing more frugal repertoires. “Gregarious simplifiers” thus constitute the lifestyle pattern with higher sustainability credentials, followed by “click rebels”. These profiles acknowledge that scarcity-triggering experiences due to the pandemic may bring enduring change toward a low-carbon, socially fair future.

**8. Conclusions**

COVID-19 affected multiple domains of practice, reshaping the spheres where individuals learn and exercise roles, and set responsibilities and goals in accordance with their needs and wants. In particular, consumption and social relations were the hardest hit. Shifts in consuming and socializing practices bring about a number of implications for sustainable lifestyles. Economic hardship (e.g., rising unemployment, zeroed savings, decreasing incomes, perception of increased expenses) encourages planned shopping and reflexivity about essential and non-essential purchasing, which in turn clarify differences between needs and wants. E-commerce enables opportunities for thoughtful purchase planning compared

to in-store, impulse-driven acquisitions. Conversely, shifting to internet-mediated purchases, or downscaling food provisioning to safer, germ-free perceived environments, means abandoning direct purchases to producers or solidarity group acquisition formats that embody the Brazilian way to enact fair-trade commerce and ensure organic food patronizing. Accordingly, this may also mean adopting less healthy diets (organic, natural or plant-based) despite growing recognition of its benefits due to their premium-prices (FMCG Gurus, 2020) and because of the perceived higher value for money and convenience of industrialized, frozen foods (Nielsen, 2020).

The pandemic spurs a more conscious use of home resources to avoid further financial stress and avoiding exposure to germs in visits to the supermarket, which may give room to a heightened sense of frugality and unnecessary materialism when performing acts of provision. Rise in home cooking is one of the most widely broadcasted stories of the pandemic, as about a third of Brazilians became first-time cooks (Nielsen, 2020). Rescuing the value of family board games or nature walks as optional to monetary-based entertainment like kids’ playgrounds at malls or theme parks, which remained closed during quarantine, goes in the same direction.

While the reduction in mobility for shopping travel and eating out generate obvious environmental dividends like lower air pollution levels and GHG emissions (Nakada and Urban, 2020), there are several non-sustainable by-products of major changes in consumption. This includes increased solid waste generation at home level (up to 28% more according to Abrelpe, 2020), furthered by the upsurge in plastic and disposable utensils and recipients use for daily consumption (The Economist, 2020b). Another negative outcome is halting the appeal of sharing economy practices (e.g., car-pooling, couch surfing, tools swapping, toys libraries) and increasing distrust of circular economy initiatives (like reuse or repair goods) due to sanitation concerns.

Based on the potential for value socialization implied in deep, enduring, sudden scarcity situations, as posited by Maslow (1943) and Inglehart (1990), we propose a framework based on ideal-type reactions at each of these two fundamental domains: consumption and social connections, which supports outlining and understanding future scenarios in a post-COVID-19 world. The analysis of potential reactions once the pandemic recedes identifies four scenarios, each embodying a distinctive lifestyle that finds expression in each domain of practice.

Each scenario represents a potential attitudinal and behavioral configuration with different effectiveness in terms of integrating

**Table 1**  
Projecting lifestyles behaviors across main domains of practice.

	Back-to-normal	Wireless materialists	Grgarious simplifiers	Click rebels
WORK	Partial adoption of telework conditional to convenience, status signaling, and profit.	Full adoption of telework to maximize professional potential.	Resistance to telework, favoring shortened workweeks.	Telework to enable self-realization and a free-lancing ethos, dynamics. Open-source collaborator.
FAMILY/LOVE	Materially mediated (out-of-home consumption rituals) engagement in family life. Outsourcing of family/in-home caretaking tasks.	Poor work-life balance.  Social cocooning.  Use of immersive tech means for family life enjoyment.	Priority to family/ community around green, neighboring areas and shared meals.  Active engagement in analogic rituals.	Sharing digitalized rituals with family, along with more egalitarian parenthood responsibilities.
WELLNESS	Relaxed germ-free sanitation approach.  On-site visits to group-oriented fitness centers, wellness classes.	Consumer of online fitness and wellness classes.  Virtual reality gym and games.	Non-monetary based mental and physical wellness routines (hikes, family life, meditation).	Germ-concerned mentality with spiritual activities investment. Avid consumer of mental health narratives.
LEISURE	Live shows, dine-outs, world travelling are a must to be posted online for display.	24 × 7 news consumption.  Avid immersive technology user for home entertainment and online gambling.	Outdoor, natural surroundings trips as top leisure priorities.  Involved in DIY hobbies & nostalgia analogic games.	Cloud-based collaborative game playing.  Virtual visits to museums, destinations, gamified meetings.
EDUCATION	Focus on networking outcomes.  Resistance to home-schooling for kids.	Continuous education instrumental to personal gains.	Opposing home-schooling.  Favorable to alternative education models.	Supporters of e-learning for all publics and for improving broader skills.
MOBILITY	Omniscient individualized automotive transportation as priority and status symbol.	Mobility minimalists.  Heavy reliance on online solutions such as delivery, virtual meetings, e-commerce, e-banking.	Commuting through walking/ biking.  Favorable to exploring safe car-pooling/shared rides.	Dreaming about self-driving vehicles, using micro-mobility means (individualized low-impact electric scooters/bikes).
HEALTH CARE	On-site visits to physicians, fitness centers, wellness classes.	Heavy users of telemedicine and diet/weight control apps.	Voluntary, other-oriented actions as therapy through care-mongering.	Adopters of remote psychotherapy and mental wellness.
FOOD PROVISION & CONSUMPTION	Mix of online/offline buying. Relying on specialized, boutique -type shops. Animal-based diet coupled with healthy supplements and organic, certified food. High waste generation due to disposals.	Full reliance on online shopping.  Dependence on industrialized, frozen food.  Likely excessive eating and alcohol drinking.  Delivery packaging waste generator.	Priority to purchase clubs, local businesses, and direct to farmers markets. Values recycled, repaired and reused goods.  Transition to more plant-based organic/ fresh food. Continuous home-cooking. Waste minimizers (using segregation, composting), rejecting plastic recipients.	Convenience-driven purchase, based online at big box stores.  Food leftovers optimizers  Adopter of online-guided home-cooking.  Reused goods favored
HOUSING	Living in larger apartments or suburbia gated communities.	Valuation of highly compartmentalized units adapted to full home-office routines. Also likely to move to gated communities.	Valuation of green, well-preserved landscapes and naturally aired/ lightened habitats.	Highly planned purchases only. Users of city center, small, flexible, multifunctional units.
CITIZENSHIP	Balconies as key socializing ecosystem. Conceptually opposed to lockdown, easily engaged in COVID-19 anti-corruption protests. Political consumers through boycotts/ buycotts.	Compliant citizens. Likely to trade rights for tighter social control aiming at health safety. Adopters of checkbook activism.	Importance to water and energy conservation. Prosocial, self-initiated networked actions in solidarity to vulnerable groups.	Importance to water and energy conservation. Highly involved in click-activism, crowdsourcing, social media campaigning.

sustainability dividends into lifestyles practices. The stability of the emerging configurations is, in turn, highly dependent on conditions that exceed individual will or choices, in other words, it connects to how other actors influence the institutional and infrastructure environment that catalyze or obliterate change (Axon, 2017; Mont et al., 2014). This conditionality to actions by third-parties that may enable or further deter sustainability change do not lower the transformational role played by reshaped perceptions and subjective norms, as a result of a traumatic experience of scarcity. Usually discredited in the sustainability transitions literature, perceptions and beliefs should not be overlooked or discarded as irrelevant, as they embody how subjectively individuals accommodate to a new, unexpected reality.

This study describes consumer and social life-level changes that reshape society's behavioral repertoires. By dissecting how social isolation and financial crisis recalibrate individuals' approaches to their livelihoods, this article offers a map of what business, civil society and policy-making organizations may find in post-COVID-19 times. This perspective paper thus offers a useful approach to generate hypotheses about the future in specific terms, suggesting particular patterns of behavior at major dimensions of social practice but with variations according to each of the four different scenarios. In recognizing the intrinsic segmented nature of changes brought by the pandemic and the role played by perceived payoffs of adopting certain behavioral repertoires, the proposed framework overcomes the deterministic anticipations foretold by standard social practice approach, which presupposes habits as unchangeable and behaviors as locked-in.

There are practical implications for business, social actors, and government involved in making progress towards sustainability in society. In particular, this research affords insights concerning the sustainability-related derivations those impacts cause in different domains where individuals usually organize their livelihoods. This study suggests that hypothetical segments may have a lower or higher environmental footprint and proclivity to engage with social equality or other-oriented action, with the profiles of “gregarious simplifiers” and “back-to-normal” embodying opposite extremes. This learning enables to connect new behavioral repertoires with adequate government policy, NGO advocacy and corporate action to advance sustainable development goals.

Sustainable transitions usually occur by design or disaster. The virus outbreak epitomizes the latter option, one that explicitly connects wrong environmental performance to the transmission of diseases from animals to humans. Ensuing lifestyles derived from the effects of disaster upon society may contain the roots of further degeneration and collapse as well as the seeds for a transition away from unsustainable practices. Taking stock of how each lifestyle repertoire influences a low-carbon future, organizations committed to progressing towards a sustainable future have the opportunity to develop touchpoints and maximize the potential for smart lifestyles that bring resilience to their business, while helping society to thrive in post-pandemic times.

## Declaration of Competing Interest

The authors declare that they have no conflict of interest.

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