Please refer to the definitive version of this article when citing:

Higham, J., Hanna, P., Hopkins, D., Cohen, S., Gössling, S. & Cocolas, N. (2021).
Reconfiguring aviation for a climate-safe future: Are airlines sending the wrong message?
Journal of Travel Research, doi.org/10.1177/00472875211033648

Reconfiguring aviation for a climate-safe future: Are airlines sending the wrong message?

Abstract

Aviation remains a problematic sector of the global economy in times of climate emergency. Grounded in the ideology of reconfiguration, we adopt a system transitions perspective to address high emissions leisure travel. Our focus falls upon the marketing communications of airlines as a critical component in the prevailing socio-technical regime. Thematic analysis of the email marketing communications of selected airlines revealed three prominent tropes: *adventure and discovery*; *privilege*; and *urgency*. These communications bring air travel into the everyday lives of consumers and accelerate the turnover time of tourist consumption. Time is mobilised to create a sense of resource scarcity and urgency to consume; paradoxically in a situation characterised by oversupply. The COVID-19 pandemic has presented a unique opportunity for structural reform of the airline industry. Component substitution to address airline marketing is required as an important step towards overcoming consumer moral disengagement and reconfiguring the airline industry.

Keywords

Sustainable consumption and production, aviation emissions, marketing communications, component substitution, moral disengagement, structural reform.

Introduction

The environmentally destructive relationship between transport and tourism has been described as a roadblock to global climate change mitigation (Creutzig et al. 2015). Air travel produces a large and growing portion of the world's transport-related carbon emissions (Bows-Larkin et al. 2016; Lenzen et al. 2018). The total number of passengers carried on scheduled airline services in 2018 increased 6.4% on the previous year to 4.3 billion (ICAO 2019a). Through many years of growth in passenger numbers exceeding 5% per annum,

aviation efficiency gains have failed to meet the 1.5% per annum target set by the International Civil Aviation Organisation (ICAO) in 2009 for each year of the decade 2010-2019 (EFTE 2016). This has long been recognised as a problem that needs to be resolved (e.g. Randles and Mander 2009; Lenzen et al. 2018).

The consumption of air travel is inequitable, both globally and within aeromobile societies (Ivanova and Wood, 2020). Yet the climate risks and injustices of aviation exceptionalism under the Paris agreement continue due to the opaque structure of the ICAO and the cognitive biases of its members. Aviation and maritime transport were the two notable omissions from the 2015 Paris Agreement (Bows-Larkin 2015). While efforts to address maritime transport emissions are now being advanced (International Maritime Organization, 2020), aviation continues to function as the equivalent to a rogue state. Indeed, the ICAO's weak post-Paris carbon offsetting scheme for international aviation (CORSIA) (Higham, Ellis and Maclaurin 2019), has been effectively withdrawn altogether in response to the impact COVID-19 has had on global aviation. Despite this, the COVID-19 global pandemic may represent an analogue to the changes required to respond to the climate crisis, offering a timely but fleeting opportunity to (re)build the global travel and tourism system for a climate-safe future.

Aviation has shaped the global tourism system enormously (Peeters et al. 2016; Cornelissen 2017). The global aviation regime is a system of infrastructures, policies, rules and practices that have become embedded over time (Geels 2012). Since the late 1970s, deregulation has created intense competition between destinations while eroding the profitability of airlines (Goetz and Vowles, 2009). To survive, airlines have lobbied state governments for favourable trading conditions (Bowen 2010) including tax exemptions and subsidies (Young 2019). Through this, and other strategies, airlines have sought to shape the global aviation regime to drive volume demand for air travel, while remaining exempt from meaningful action to stabilise and mitigate aviation emissions (Higham et al. 2019). Over the course of the last decade (2010-2019), long distance, short duration and high volume air travel had become a feature of the unsustainable global tourism system (Scott et al. 2019; Gössling and Higham 2020).

In order to advance changes in the aviation regime in response to the climate emergency, it is necessary to question the volume-based production of air passenger transportation as a

destructive form of consumption. Within this context, we use transitions theory to inform a critique of global aviation as the dominant socio-technical regime of tourism mobilities (Geels et al. 2002; UNWTO 2020). In this paper, our focus falls upon the marketing communications of airlines, as a key ‘component’ (Geels, 2018b) of the wider regime. As previously unexplored actors in the aviation regime, it is important to critique the role that airline marketing communications play in shaping the practices and cultures of air travel which exist within societies but are also shared globally. We set out to critically analyse the marketing communication strategies of airlines in relation to demand volume and the turnover time of air travel consumption. After decades of inaction (Peeters et al. 2016), the system-wide disruption caused by the COVID-19 pandemic offers a timely opportunity to address the unevenly distributed social and environmental costs of global aviation (Young 2019).

Sustainable Consumption and Production

Sustainable consumption and production (SCP) is a central focus of international policy to address sustainable development (United Nations 2019). A working definition for SCP was originally presented at the Oslo Symposium on Sustainable Development in 1994 (Welch 2015), where SCP was defined as “...*the use of services and related products, which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of further generations...*” (United Nations 2015a: np). At the intergovernmental level, SCP is framed around decoupling economic growth from dependency on natural resources. It is recognised that this objective will be advanced through reducing the energy and emissions associated with current economic systems, while also encouraging more energy- and material-efficient consumption (UNEP 2015).

Within the UN Sustainable Development Goals (SDGs) framework ‘developing sustainable consumption and production patterns’ is profiled under Goal 12 (United Nations 2015b). SDG12 outlines a number of key targets that focus on efficiency, education and sustainable management (*Sustainable Development Goals Knowledge Platform* 2019). One key target that is central to SDG12 relates to high dependence on fossil-fuel and the role of fossil fuel subsidies in perpetuating unsustainable consumption (Naidoo and Fisher 2020). A recent report on the SDGs indicates that to date little significant progress has been made in the shift

towards SCP at the global scale (United Nations 2019). It highlights continued unsustainable growth in material consumption coupled with the increased footprint per capita. In response, the report calls for stronger national policy frameworks to engineer a shift towards new patterns of SCP.

SCP presents a significant challenge to the tourism and aviation industries. In May 2019, the UNWTO released a baseline report which analysed SCP within the context of the tourism policies of member states (UNWTO 2019). It found that national tourism policies focused on resource efficiency and sustainability very broadly, missing the opportunity for detailed and specific planning. Similarly, the ICAO mapped the SDGs and their relevance to their five strategic initiatives: safety, capacity and efficiency, security and facilitation, economic development and environmental issues (ICAO 2019b). Of these strategies, ICAO marked economic development and environmental issues as relevant to SDG 12. The aviation industry group, Air Transport Association Group (ATAG), has also examined the relationship between the SDGs and the aviation industry. Their commentary on SDG 12 focuses primarily on waste production and regulatory constraints that limit recycling possibilities (ATAG 2017). The chapter on SCP does not address fuel consumption, volume growth and emissions, despite longstanding concerns (Peeters et al. 2006; Bows-Larkin et al. 2010; Lenzen et al. 2018), thus missing arguably *the* key component of SCP in aviation. These organisations have narrow and limiting perspectives on aviation emissions (e.g. IPCC 1999), that perpetuate aviation exceptionalism in the post-Paris 2015 context (Scott et al. 2016).

The global aviation socio-technical regime

Long recognised for its high energy intensity and high growth carbon emissions, aviation remains one of the most problematic sectors of the global economy in times of urgent climate change (Terrenoire et al. 2019). Declining scope for further efficiency gains and the absence of a technically-feasible substitute for jet fuel (Peeters et al 2016) have been coupled with sustained high growth in demand (Bows-Larkin et al. 2010). Young's (2019) Marxist critique of air passenger transport illuminates the systemic nature of the aviation-climate problem. He observes that air travel and its carbon costs are synonymous with economic growth. The aviation development path since 1970 has been such that it now lies at the heart of the global tourism system (Cornelissen 2017), with 58% of international tourist arrivals relying on this transport mode (UNWTO 2020). More so, however, aviation itself has developed into a

driver of value production. The movement of people and goods serves as a ‘connecting artery’ to multiple tourism-related consumption and production processes (Young 2019).

Responding to the climate crisis is difficult because aviation is deeply embedded in not only the economic, but also the *social* functions of global capitalism (Geels 2002). Because air transport is so “tightly bound up with the reproduction and expansion of capitalist societies” (Young 2019: 5) there has been a reluctance to act upon the environmental impacts of aviation (Peeters et al. 2016). Rather than confront the problem of aviation emissions, the macro-level socio-technical regime has been consciously developed to perpetuate growth in air travel. The aviation transport system serves as a public good that is simultaneously consumed by multiple actors (e.g., governments, corporations, exporters and leisure travellers), both for productive (indirect) and final (direct) consumption (Young 2019). It has evolved over time and become locked-in because a “complexity of heterogeneous but interdependent elements are linked” (Geels 2002: 1258). It is for this reason that it is critical to interrogate key components of the prevailing regime to advance gradual system reconfiguration (Geels, 2018b).

Geels (2007) offers important insights into the global aviation regime (Figure 1). Airports and associated surface transport networks, hotels, resorts and attractions, have become the centrepiece of the *built environment and infrastructure* (Fig. 1, A). Prominence in the global tourism system is dependent upon global aviation networks that determine connectivity and flows (Cornelissen 2017). Connectivity is expressed through aviation *production and supply chain systems* (Fig. 1, B). Airline operations have driven down production costs through technological replacement and depersonalisation of the air travel experience, migration to online booking and customer service, and minimisation of passenger services (Duval 2013). Airline marketing through social media and frequent flier membership communications are key components of the aviation production system (Stubenvoll and Neureiter, 2021). Airports have also played a part in the replacement of labour with technology in the form of automated check-ins, electronic scanning and automated luggage systems (Young 2019). This model of aviation has fostered new forms of excessive consumption (Cohen *et al.* 2011), high aeromobility dependency (Bows-Larkin et al. 2010) and the reproduction of capital (Young 2019).

Figure 1. Components of the socio-technical global aviation regime
(Source: Adapted from Geels et al. 2007; Noguchi 2019).

The historic focus on air transport as a driver of economic development has shaped the aviation *regulation and policy* setting (Fig. 1, C). In the immediate post-war years, the Convention on International Civil Aviation 1947 (‘The Chicago Convention’) agreed to comprehensive airline tax exemptions to stimulate the global economy. Aviation exceptionalism has continued with strong industry lobbying focused on economic importance, high fixed costs (i.e., aircraft purchase), low margins, and high dependence on the cost of aviation fuel (Young 2019). Thus, airlines operate in “...a world where they pay no fuel taxes, are VAT-exempt, face no legally-binding fuel efficiency requirements, and have no limits placed on their CO₂ emissions” (Eickhout and Taylor 2016: np). Korteland and Faber’s (2013) study of public revenue loss due to aviation VAT and fuel tax exemptions in Europe reported an estimated annual shortfall of €7.1 billion for VAT on total airline revenues and €20-32 billion for fuel tax. Not only has aviation escaped the carbon accountability and mitigation obligations of other sectors (Peeters et al. 2016), but it has also benefited from very significant subsidies (Doganis 2002; T&E 2020).

The aviation transport system shapes (and is shaped by) *user practices and culture* (Fig. 1, D) in societies where unconstrained air travel consumption has been enabled and encouraged (Verbeek and Mommaas 2008). The air transport system seeks to maximise the volume and

velocity of passenger circulation, and sophisticated marketing and promotion campaigns are central to the recruitment of flyers and building of consumer loyalty (Young et al. 2014). Increasing the velocity of passenger circulation (i.e., the turnover time of tourism) requires the acceleration of passenger demand by entrenching an apparent social necessity of air travel (Young 2019). The ever growing public ‘need’ for holidays accessed through air travel has been consciously and successfully shifted by airline producers from an extraordinary event to an everyday ‘locked-in’ social institution (Randles and Mander 2009; Cohen et al. 2011).

Airline marketing is a key component in aviation *user practices and culture*. Advertising promotes environmentally detrimental consumption practices in ways that have been shown to foster moral disengagement from the damaging consequences of individual air travel decisions. Informed by the theory of moral disengagement (Bandura 2016), Stubenvoll and Neureiter (2021) present empirical evidence from a consumer perspective of airline advertisements activating the desire for carbon intensive air travel lifestyles, often in contradiction of consumers’ environmental values (Higham et al. 2014). Moral disengagement is activated through advertising that employs mechanisms to promote the benefits and downplay or neglect the ethical elements of consumption, by way of four strategies:

- Justification locus: The personal benefits of consumption are promoted while the realities of harmful behaviour are neutralised by neglect or obfuscation of the severity of externalities;
- Agency locus: The harms caused by consumption are denied based on lack of agency;
- Outcome locus: Social benefits are celebrated while environmental outcomes are distorted or minimised to mollify the need for guilt or shame;
- Victim locus: Responsibility is displaced to resolve the tension between detrimental consumption and self-perception.

Stubenvoll and Neureiter (2021) provide empirical evidence that airline marketing creates wilful neglect of the social and environmental impacts of air travel, particularly among those with low levels of climate concern. They urge the need for “counter-campaigns by NGOs or government actors... to help individuals to build more resistance against the persuasive attempts of advertisers for carbon intensive products” (Stubenvoll and Neureiter 2021:15). Clearly airline marketing practices that simultaneously promote social incentive and moral

disengagement are a critical system component within the wider aviation socio-technical regime.

System transitions: Reform, revolution or reconfiguration?

It has been argued that many aspects of SCP remain largely theoretical (Wang, Ghadimi, Lim, and Tseng 2019; Weiss and Cattaneo 2017). For example, while the attitude-behaviour gap is well established in theory, much research focusses on consumer attitudes to air travel, rather than the drivers of meaningful behaviour change (Cohen, Higham and Reis 2013).

Welch (2015) identifies three interconnected aspects of the SCP agenda - material, economic, and sociological. In the context of aviation, the unsustainable production of air passenger transportation as an uneven and unjust form of consumption must be addressed in relation to the socio-technical regime (Higham et al. 2019). Highlighting the challenges of systemic global change, Welch (2015) stresses the need to understand the broader social and economic context of specific aspects of consumption and production in order to engineer sustainability transitions by way of system reform, revolution or reconfiguration (Geels et al. 2015).

Progress towards sustainable consumption and production has been studied in relation to socio-technical system transitions (Geels, Sovacool, Schwanen and Sorrell 2017), which has revealed three ideological approaches (Geels, McMeekin, Mylan and Southerton 2015). The *reformist* ideological approach addresses the need for adjustments to existing socio-economic structures in industrialised societies (Geels et al. 2015). It advocates continued growth within the neoliberalist economic system (Lebel and Lorek 2008), supported by the technological advances required to achieve SCP (Geels et al. 2015). Reform is founded on the principle that consumer concerns will be expressed through pro-environmental behaviours (Tukker et al. 2008). Reformist approaches may include social marketing campaigns to discourage waste, greening supply chains, fair trade, and eco-labelling. Lebel and Lorek's (2008) analysis of such approaches observed the emergence of niche consumer markets, while dominant patterns of unsustainable consumption are perpetuated. Powerful in theory, in practice consumer choice is constrained by existing socio-technical systems and societal forces that reinforce and reproduce patterns of consumption (Tukker et al. 2008).

In the context of transport, reformist approaches tend to emphasise efficiency in production as a key to SCP (Fuchs and Lorek 2005). Stephenson et al. (2018) found that focusing on efficiency was an important element of transport reform, but insufficient in itself to achieve

the transitions required to achieve SCP. Indeed, striving for ‘efficient’ practices may be counter-productive, in that it encourages and perpetuates socially acceptable practices that are inherently unsustainable (Shove 2018). The efficiency argument reflects the Jevon’s Paradox in environmental economics; that efficiency does not result in reduced consumption (Alcott 2005), but rather enables increased consumption as affluence increases within a society. In the case of aviation, efficiency gains have been a driver of growth in global demand (Alcott 2005; Peeters et al. 2016; Shove 2018), perpetuated by government reluctance to enact measures that may be seen to constrain businesses, compromise economic growth and alienate consumers/voters (Fuchs and Lorek 2005; Stephenson et al. 2018). Intergovernmental organisations such as the UNWTO, WTTC and ICAO fundamentally reflect a reformist position due to the influence on them from government and industry development interests (Gascón 2019).

The *revolutionary* ideological position states that transformational change in political and economic structures is required to achieve transition in socio-technical regimes (Geels et al. 2015). Such approaches are critical of capitalism and markets due to their dependence on growth and economic prosperity (Büchs and Koch 2019). In contrast to the reformist ideology, technology is considered to hinder progress towards SCP (Weiss and Cattaneo 2017). Degrowth is a dominant perspective within the revolutionary approach to SCP (Geels et al. 2015). It argues that reducing levels of consumerism requires fundamental changes to current social, political, cultural and technological power structures (Schneider, Kallis, and Martinez-Alier 2010; Büchs and Koch 2019). To date, the mainstreaming of grassroots movements has not occurred commensurate with the threat of climate change (Büchs and Koch 2019). Reforming production and consumption within current capitalist economic systems will not induce the necessary reductions in emissions to halt climate change (Welch and Southerton 2019). Revolutionary approaches require that long-established and deeply-rooted economic growth paradigm ‘lock-in’ is confronted, which is strongly resisted by vested interests (Büchs and Koch 2019).

A third approach, *reconfiguration*, is founded upon system transition perspectives that focuses on the socio-technical regime (Geels et al. 2015; Geels 2018a, 2018b).

Reconfiguration can be interpreted through the multi-level perspective (MLP) which understands change as occurring within and across three levels: ‘niches’, ‘regimes’ and ‘landscapes’. Niches are the ‘protected spaces’ where novel innovations occur away from the

pressures of the dominant regime. Regimes reflect the institutionalised structures of consumption and production. Landscapes describe the external environment that regimes operate within (Geels 2002). Within the MLP, gradual system reconfiguration requires ‘component substitution’, i.e. a distributed, multi-source approach to regime change through radical substitution of system components and incremental system improvements (Geels, 2018b). Here we argue that airline marketing is a component of the aviation socio-technical regime that underpins current high carbon *user practices and culture*.

Research problem

The socio-technical aviation regime has locked societies into an air transport dependence that entrenches shared practices of tourist air travel which are difficult to redirect (Geels and Kemp 2007), despite an increasingly widespread sense of moral duty on the part of consumers to resist the high environmental costs of air travel (Young et al. 2015; Higham et al. 2019). Most airlines are yet to even acknowledged the climate-related externalities of their products. To date the literature has been relatively silent on the global aviation regime (Figure 1), and the regime elements and components that drive high growth, volume-based demand for air travel (Higham et al. 2019).

In this paper, we break new ground by interrogating airlines’ marketing communications as a key component of the ‘production and supply chain systems’ (Fig. 1, B) and ‘user practices and culture’ (Fig. 1, D) elements of the global aviation regime. While the aviation emissions policy positions of the global actors (e.g., UNWTO, WTTC, ICAO) are largely invisible to the travelling public, airline communications represent the outward facing public images of the aviation sector, and help us to better understand how airlines envision segments of the global air travel market. The visual and textual messages that airlines deliver to consumers in their marketing communications are critical to the perpetuation of air travel practices that are socially and environmentally destructive.

Methodology and methods

We aimed to critically explore the marketing communication strategies of selected airlines through the text and imagery deployed in airlines’ marketing campaigns. The dataset comprised of selected airline marketing communications distributed via email. The scope of

the current paper was delimited to exclude third-party sites that travellers might join in order to receive alerts for bundled flight deals, such as *Scottscheapflights.com*. Focusing solely on communications from airlines directed to personal email accounts enabled the researchers to identify and analyse communications as intended by the airlines without third-party interference, or intervention from social media platform algorithms, that might otherwise impact the timing and delivery of content.

Our research aim required the development of a novel methodology, which in broad terms consisted of taking on the perspective of a customer who receives airline marketing communications. Purposive sampling was utilised to garner airline communications aimed at new and established consumers. The airlines included in our analysis were selected on the criteria of convenience and familiarity. To achieve this, an independent email account was created for the specific purpose of collecting and storing data. In order to receive communications targeting new flyers, memberships were created for a selection of airlines under the pseudonym Mr. Smith. For logistical reasons, these were predominantly airlines operating in the countries of the researchers. With permission, we also set up automatic forwards on the personal accounts of people within the networks of the researchers who were frequent flyers, while acknowledging the paradox of researchers with interests in climate change being frequent air travelers (Whitmarsh et al. 2020).

This allowed for the email communications that airlines direct to frequent flyers to be received into the project's email database. We specifically targeted both national carriers (Qantas, Qatar Airways, Air New Zealand and British Airways) and low-cost carriers (LCCs) (Jetstar and AirAsia). Our collection of data from LCCs was compromised by challenges in receiving email communications from two European LCCs, EasyJet and RyanAir. Profiles were created but no communications were received from these airlines. We assumed that these airlines only register consumers to receive marketing materials via their flight booking platform.

Data collection began on 8 April 2019, and continued through until 30 November 2019, shortly before the COVID-19 pandemic. The email inbox acted as a repository for incoming marketing communications for the duration of data collection. When data collection closed all emails in the dataset were exported to PDF and Word files for analysis. Care was taken to ensure the imagery and layout of the emails were transferred accurately, and as intended by the airlines, when converted to Word. Some airline emails included moving graphics that

could not be transferred due to the static nature of data collection. In these cases, a snapshot of the graphic was captured when exporting the data to Word format. A total of 223 emails received from six airlines generated 1850 pages of aggregated data for analysis (Qantas 62 emails, Air New Zealand 61, British Airways 40, Qatar Airways 33, Air Asia 15 and Jetstar 12). These communications offered a rich set of qualitative material for analysis, although the scope for our analyses to adequately represent the LCCs was compromised by the relatively low level of communications received.

Philosophically our research draws on a post-structuralist position that views marketing communication not as a simple line of information communication, but rather as a social resource that constructs and represents realities and subjectivities (Burkitt 2008). Given the volume of qualitative data available to us, we considered a range of possible analytic frameworks through which to read the data including Foucauldian Discourse Analysis (e.g. Willig 2001) and Critical Discourse Analysis (e.g. Fairclough 2013), opting for a theoretically-informed version of Thematic Analysis (e.g. Hayfield et al. 2019) due to its flexibility and usefulness on large qualitative datasets (e.g. Braun et al. 2019).

Theoretically we set out to analyse the ways in which consumers' practices were being constructed, and consumers were being invited to experiment with subjectivities through airline marketing communications strategies. Thus, rather than approaching the data with the goal of themes emerging 'naturally' we followed Braun and Clarke's (2006) six stages to the analysis: familiarisation with the data; generation of initial codes; collation of codes into initial themes; reviewing themes; defining themes; reporting of themes using the data. However, as it was our intention to critique airline marketing communications in relation to the construction of air travel consumption practices, we placed this aim at the forefront of our reading of the data when undertaking the six stages. This allowed the analysis to explore the most pertinent themes in the visual and textual messaging of the airlines, whilst also being mindful of the ways in which the potential consumer was being invited to experience themselves. We used analyst and theoretical triangulation to ensure the trustworthiness of our analyses (Patton 2002; Decrop 2004). Saturation was reached when our interpretations of the data comprehensively addressed the theoretical elements of air travel production and consumption, and user practices and culture that inform our research. What follows is an analysis of the key themes that emerged through the analytic process in relation to the intentions of selected air travel producers and their potential consumers.

Findings

Throughout the data corpus the marketing campaigns of the airlines included in our analyses drew on a range of concepts and tropes to entice the recipient to consume air travel. For the purposes of this analysis we present the three most prominent tropes in the dataset: *adventure and discovery*; *privilege*; and *urgency*. Adventure and discovery, and privilege reflect the findings of previous research on the promotion of sustainable tourism and frequent flyer programmes (e.g. Hanna 2013; Thurlow and Jaworski 2006; respectively). We analyse these tropes within the context of airline promotions, whilst drawing parallels to the existent work. The focus of our analysis then moves on to the use of ‘urgency’ and ‘fear of missing out’ in airline marketing communications. We found little evidence to differentiate the marketing strategies of national carriers and LCCs, or the marketing communications directed to new and longstanding airline members.

Adventure and discovery

To entice the email recipient into booking a flight through the airlines the well-documented tourism marketing strategy of adventure and discovery was prominently deployed. Circulated in opposition to the ‘mass tourist’, such tropes were prominent in the written components of the emails, as the following passages highlight:

The world’s best kept secrets are but a whisper away – discover delightful detours, drive the roads less travelled, and make memories along the way. From road trips to going solo, we’ll help you think outside of the ordinary with these insider tips – the world is waiting (British Airways)

Bondi Beach is great but there's plenty of places to take a plunge around the country that you can have all to yourself. Dive on in (Qantas)

In these two extracts the potential consumer is invited to experience ‘the world’s best kept secrets’, the ‘roads less travelled’, and ‘outside of the ordinary’ experiences ‘all to yourself’. Drawing on such tropes facilitates the construction of the independent ‘traveller’ subjectivity identified by O’Reilly (2005) and presents the opportunity, and indeed need, for the recipient to reflect on their disenchantment with contemporary living (Ritzer 2013) and escape it all for an exploration reminiscent of the construction of colonial ‘adventures’ (Echtner and Prasad 2003). Indeed, this final point is elaborated further in the dataset through the construction of the destinations being sold:

Explore the cultures, cuisines and colourful city centres that make any trip to Asia unforgettable. Temple-hop, bar-hop or island hop as you experience the unique sights, sounds and flavours. There's no better time to take your senses on the tour of a lifetime (Air New Zealand)

From memorable coastal sunsets to world-renowned cultural experiences, surround yourself in centuries-old cities steeped with rich history, remarkable art galleries, architecture and festive food traditions (Qatar Airways)

Here the 'culture, cuisines and color(ful)', 'sights, sounds and flavours', 'cultural experiences', 'centuries-old cities', 'rich history', 'galleries, architecture and festive food traditions' all function to present a reality in which the potential consumer is invited to escape the mundanity of their everyday life and the perceived inauthentic West (e.g. Phillips and Aarons, 2007) by taking a sensory, 'memorable' and 'unforgettable' journey to reenchant the self (Firat and Venkatesh 1995). Importantly, the notion of "hop" invokes fast visitation, of the kind only enabled by air travel, with destinations 'ticked off' in accounts of travelness (cf. Urry 2012).

Airlines use imagery in the construction of the adventure seeking traveller, such as ancient Roman ruins (Figure 2). With the sun setting the image is aesthetically pleasing however the distinct absence of people (or tourists) constructs a reality in which the potential tourist is positioned as the discoverer of ancient lands in a similar light to that used in colonial iconography (Smith 2018) and in the marketing and promotion of sustainable tourism (Hanna 2013). Further, the absence of people in the image distances the potential consumer from the normalised understandings of the 'mass tourist' subjectivity (e.g. Ritzer and Liska 1997; Urry 2002). The subject position of the potential tourist as the discoverer of this land is further reinforced through the written text overlaying the image which can be understood as drawing on discursive resources that presents the potential tourist not as a 'tourist' but rather a 'traveller'. Notions of frequent flight as social norm are invoked on the basis of comparison, in which anyone not having visited a large number of sites is discursively framed as an inexperienced traveller.

Figure 2. The promise of adventure and discovery (Source: Qantas 2019)

Original:

<https://www.qantas.com/content/dam/travelinsider/images/newsletter/20190824/20190824-european-historic-sites.jpg>

Archived:

<https://web.archive.org/web/20210125071958/https://www.qantas.com/content/dam/travelinsider/images/newsletter/20190824/20190824-european-historic-sites.jpg>

Privilege

In Thurlow and Jaworski's (2006: 99) analysis of airlines' frequent flyer websites they argue that frequent flyer programmes are being constructed as 'cultural capital *par excellence*'. This is achieved through the sustained interpersonal appeal in the "reworking of symbolic capital, their manipulation of the illusion of distinction, and the exploitation of social anxieties about status". This they suggest functions through the representation of the potential frequent flyer as an elite member of society which, via the frequent flyer programme, will experience a level of social privilege, superiority, luxury and comfort that is unavailable to the 'other' (the non-frequent flyer member). In our research, we found that low-cost airlines were no less likely to use notions of privilege in their marketing communications. Air Asia (Figure 3) do not explicitly construct the levels of luxury and comfort Thurlow and Jaworski found, however they do evoke notions of class distinction (Bourdieu, 2010) by drawing on a representation that foregrounds 'priority access' and 'exclusivity' of the deals being promoted, despite being a LCC that targets a mass market (see Young et al. 2014). Also note the depiction of a smartphone that can be used to communicate travelness, i.e. the visitation of many attractions with a high potential for "instagrammability" (Gössling, Hanna, Higham, Cohen and Hopkins 2019). In addition, reference to 'your world' creates a 'synthetic personalisation' (Fairclough 1989 cited in Thurlow and Jaworski 2006) to reinforce the sense that the recipient of the marketing email is special, unique and personally selected by the airline for exclusive treatment.

Figure 3. Deployment of privilege and exclusivity in airline marketing communications
(Source: Air Asia 2019).

Original:

http://edmimg.airasia.com/custloads/765155098/md_731422.gif

Archived:

https://web.archive.org/web/20210125071710/http://edmimg.airasia.com/custloads/765155098/md_731422.gif

Such constructions can be further explored through the written elements of the personalised marketing emails distributed by other airlines, to travellers who fly both more and less frequently:

“Dear Mr Smith, For you, our sale is extra special. As an Executive Club Member, you can enjoy access to a range of exclusive offers and savings. Which means, your next trip could be closer than you think. Sale ends 24 September 2019 - so don't miss out. Whisk me away” (British Airways)

“Privilege Club members residing in Australia, who book a flight in Economy Class on qatarairways.com to any of our 160+ destinations by 30 November 2019 for travel between now and 31 March 2020 will earn 5X bonus Qmiles” (Qatar Airways)

“As a Qantas Red Email subscriber, you're eligible to redeem an exclusive offer on your next trip to Australia. Now, here's the hard part... You've got to decide which offer you'd like to apply to your booking. Choose between \$100 off your flight or a complimentary lounge invitation. This offer is only for the intended recipient and must be redeemed via this email” (Qantas)

The first extract from a British Airways marketing email opens with an explicit form of ‘synthetic personalisation’ through the use of ‘Dear Mr Smith’ followed by repeated references to ‘you’ constructing the sense of knowing someone. Coupled with references to ‘you’ receiving ‘extra special’ and ‘exclusive offers and savings’ positions the recipient as someone of importance. Thus, whilst the advent of the LCC has been argued to have, in part

at least, broken down traditional ways for tourists to distinguish themselves on class-based lines through travelling to locations unaffordable to the masses (Casey 2010), we now see such forms of class distinction functioning through the perceived privilege of airline membership programmes (Dolnicar et al. 2011).

Indeed, the very name of the British Airways and Qatar Airways membership programmes (Executive Club Member and Privilege Club Member respectively) discursively presents their members as exclusive individuals in contemporary society. Whilst the Qantas membership programme does not employ such explicit discursive strategies to construct the exclusivity and importance of its members, it adopts similar rhetoric in its promotion of the ‘exclusive offers’ that are ‘only for the intended recipient’ redeemable only ‘via this email’ once again positioning the recipient as an individual of importance whom has access to money off or a ‘complimentary lounge invitation’ that others do not, reinforcing notions of social status through airline membership schemes (Dolnicar et al. 2011). Furthermore, a distancing from the notion of a ‘Privilege Club Member’ (Qatar Airways) travelling in economy class is negotiated through the offer of five times the amount of Qmiles reinforcing the perceived undesirability of travel in that class whilst offering a large incentive for the privileged individual to consider it. Thus, whilst the individual might be seated next to the undesirable ‘other’, they will still feel superior through the benefits they receive for booking the flight that the ‘other’ will not.

Urgency

Airline marketing strategies construct a sense of urgency and fear of missing out to encourage individuals to potentially fly more regularly than they may have otherwise. Of course, adventure and discovery, and privilege are part of this strategy and we are not suggesting they are separate but see these themes as intimately connected and reinforcing. Inherent within our data set was the explicit construction of urgency, scarcity, frenzy and panic on the part of the consumer in relation to the products being marketed, primarily through the imposition of artificial time limitations. These strategies were evident across the marketing communications of all airlines included in our analysis. In adopting these approaches, it can be suggested that airlines fabricate what Shou, Xiong and Shen (2013) refer to as a ‘supply disruption’ by constructing a sense that there is a ‘supply shortage’ (Yoon, Narasimhan, Kim 2017). This is communicated through reference to the time limited

nature of the ‘deals’ on offer evoked through ‘Friday Fare Frenzy’, ‘Rush Hour Ends’, ‘Sale Ends Soon’ and ‘48 Hour Sale’ (see Figures 4A-4D). Such a construction leads to a situation for the email recipient in which the normalised consumer response is to panic buy to ensure they can consume a product that is in short supply at a price that is short lived (Hailin 2013). Indeed, besides the typical tourist image presented in the final example (Figure 4D; Air New Zealand), all others rely solely on the strategy of consumer response to scarcity to entice immediate purchase.

Figure 4: Use of ‘resource scarcity’ and ‘urgency to consume’ in airline marketing communications. 4A (top left) Jetstar; 4B (top right) Qantas; 4C (bottom left) British Airways; 4D (bottom right) Air New Zealand.

Figure 4A. Friday Fare Frenzy (Jetstar)

Archived: [if this link does not upload please copy into browser]

https://web.archive.org/web/20210127062204/https://email.jetstar.com/pub/sf/FormLink?_ri=X0Gzc2X=AQpglLjHJITQGgiPf2zcFYlPoOowf6dzeJWqgzcgLqJ3C6dIfvCSspRsvEXAdmagBevuOVXMtX=AQpglLjHJITQGH29zdzgAA1eAmBMqRH7fRNTSD86zgwCh44wKyr82zdO5e3B5j4zeIc05BO&ei=EvZKNfaTwbgBnERkdRU0ndSv6rUzj3vFcpY91U-wuINAho58b0Z5gLIWGIgWypvQTdJCWdbglA0_FhE18ZEz5qpd9f1F5-Wzqr1JnOd7jHugYuKuwxowNfP3KEk-IBect2KM4bNYjdHkED4iHyhg-MPMXfzehZb0Zs1D9wbA-LV6eDDfHS_KXbx9qKGofPCTCblKTca4oKZ1YIAHCKNA-Ej1SEKC3hFVYaZHRh8ENwqRLqhlYJmEL1X0zOip2BttnzW-2vm4PI4OdtM8991y8EEjsc3ICP-hw2JEawYkGhTnc5UWHBglA9HS72udt8hEcWebs2HX2DAX1Z4qGzBZmPIQtjO1W4VhcmmyoNh07SmI7JXN7pFAHqvu9gCcqlBuovVsQfGt3DBDU53d12C6TOjCwY0Wbx_fJ-dZt9YetDJ0EVV_9a3Vgm49SmeTbC7W2WABwFCJbyA3cm0LA7_gC77gRFYOVX8Ea2D0c8ursF6v6EH4_JcSd2Sj23tnjDKwGPmB_xULstvZ864PZgb4A2XwiIUH_x6QVqEPma1mgIY6TP-WjmvoEvQeZijpn7z07a9LWpeJLhYsXRhZyBAkRogh3hN1d5fMYP9TRFHIj51QCX4Ggvf3iFNzX5uVPhm-X4P3SMgEYtewPMQDEwyDP4wZjR3x5dxg0Vnk_yERZQ23vEnbAb-hdJwqvagkfCAS2SJAztNzferPooFZlSnoRkpQtCieNMaQA9e3uN8wfOukaaI-

[UNXW1fMeMGcEjQ40-](https://www.qantas.com/images/per/email/body-section/usa-rush-hour-sale/jpg/header.email.jpg)

[Dr4KA8kml3DGx3r8g.& di _a4ch37n1bgsciore4pqtsv78se5mn0s4vmbkpska3ql4sl4f7a30](https://www.qantas.com/images/per/email/body-section/usa-rush-hour-sale/jpg/header.email.jpg)

Figure 4B. Sale Rush Hour (Qantas)

Original:

<https://www.qantas.com/images/per/email/body-section/usa-rush-hour-sale/jpg/header.email.jpg>

Archived:

<https://web.archive.org/web/20210125072224/https://www.qantas.com/images/per/email/body-section/usa-rush-hour-sale/jpg/header.email.jpg>

Figure 4C. Sale Ends Soon (British Airways)

Original:

https://www.britishairways.com/assets/images/MediaHub/Media-Database/Rights-managed-RM/artwork/Sale/sept_sale_email_sale_ends_soon_1200x675.jpg

Archived:

https://web.archive.org/web/20210125091529/https://www.britishairways.com/assets/images/MediaHub/Media-Database/Rights-managed-RM/artwork/Sale/sept_sale_email_sale_ends_soon_1200x675.jpg

Figure 4D. The Islands 48hr Sale (Air New Zealand)

Original:

<https://www.airnzimage.co.nz/2019/retail/special-offers/new-zealand/pacific/20191021/header.jpg>

Archived:

<https://web.archive.org/web/20210125091813/https://www.airnzimage.co.nz/2019/retail/special-offers/new-zealand/pacific/20191021/header.jpg>

Interestingly, Jetstar construct the sense of future urgency by following up their initial image with a second image in the email communication (Figure 5). They fabricate the sense of ‘missing out’ by arousing panic and frenzy and follow this up by suggesting that the potential consumer has already missed out due to the ‘supply shortage’ but should remain vigilant as another opportunity will present itself soon.

Figure 5. Use of ‘supply shortage’ in airline marketing (Jetstar 2019)

Original:

[http://www.movable-ink-2558.com/p/rp/f1fd5a2a634d16cd.png?mi_u=\\$RIID_\\$](http://www.movable-ink-2558.com/p/rp/f1fd5a2a634d16cd.png?mi_u=$RIID_$)

The use of urgency as a concept to mobilise the individual from the position of the ‘potential consumer’ to the ‘actual consumer’ was pertinent throughout the email subject headings, imploring the individual to open the email and look further rather than disregarding it as ‘junk mail’ (Table 1). Throughout these email subject headings, either through explicit reference to a specific time-frame (e.g. 8, 24, 48, 72 hours, or specified days) or through a more conceptual construction of time (e.g. Get in quick, Limited-time offers, Sale now on, Time is ticking), time is mobilised as a central concept to create a sense of resource scarcity and a relational sense of urgency to book for fear of missing out (to others) (Przybylski 2013).

Table 1: Airline email subject headings used to convey a sense of importance and urgency.

Airline	Selected email subject headings
Qantas	Australia is on sale from \$119; Flash Sale now on. 48 hours only; The Pacific and New Zealand on sale now; Hurry, it's Day 8: Around the World in 8 Days Sale ends today; Special fares between Perth and Broome now extended; ⚡ Qantas Flash Sale from \$1,283 - Sale ends 13 May!; USA Rush Hour Sale - starts at 4pm, for 8 hrs only.
Qatar Airlines	Limited-time offers to some of our most popular destinations; Do not miss out. Uncover the extraordinary; Less than 24 hours left. Experience a journey like never before; Last-minute fares to Europe starting from \$1,079* return; Only a few hours remain to book our premium companion offer.
Jetstar	Our Mid-Year Sale is on now - Fares from \$37; Fares from \$35^ - Friday Fare Frenzy Sale on now! 🎁 Our 15th Birthday Sale continues - Fares from \$37; 🎁 Return for FREE^ Our 15th Birthday Sale is on now.
British Airways	Time is ticking on our centenary offers; Ms Smith, take that last minute trip; Dear Mr Smith, a 5,000 Avios bonus to help you travel further, sooner.
Air New Zealand	The UK and Europe on Sale Now!; Islands 72hr Sale on Now - Flights From \$209 Seat One Way; NZ Flights From \$39 - Explore Your Backyard; Get in Quick! USA, South America and Canada Sale ends Monday; USA, Canada and South America on Sale Now!; 48hr Aussie Sale on Now - Flights From \$149 Seat One Way; Islands 72hr Sale on Now - Flights From \$209 Seat One Way; 24hr Aussie Sale on Now - Flights From \$129 Seat One Way; Adventure Awaits Sale Ends Monday. Get In Quick For Deals Across The Globe!.

The written text in the emails that drew on a sense of urgency in the email subject heading adopted a more complex marketing strategy to entice the potential consumer, drawing on a mix of time, individualism, discovery and privilege to generate a fear of missing out. As the following extracts highlight:

Discover the perfect last minute trip for you. Trust your spontaneous side, have a jet set moment and head off tomorrow. Or feel that getaway buzz and book a dream trip for a month's time. Whether you want to get some sun or experience the thrill of a new city, we have great last minute fares on our favourite destinations this month (British Airways)

Find your next getaway in Aussie. Whether you want to explore a world of food in Sydney or soak up the beach vibes in Perth, Aussie can cover any holiday checklist. And with flights from just \$149 seat one way, there's no better excuse to start your adventure. Hurry, sale ends 11:59pm, Tuesday 6 August 2019 (Air New Zealand)

Throughout the above extracts the sale of a flight is constructed as far more than the simple practice of flying from one destination to another. Rather it is constructing a particular subjectivity that the individual is invited to experiment with (Hanna 2013). Through the use of 'your spontaneous side', 'have a jet set moment', 'getaway buzz', 'fun', 'thrill', 'explore a world of food', and 'soak up the beach vibes' a particular version of the consumer is presented that is embedded within contemporary 'trendy' individualised understandings of the self that comes to be through the consumption of goods (Pilcher 2011). Whilst the focus of the messaging is on the individual as a consumer of identities, resource scarcity and purchase urgency are still inherent within the above extracts through tropes such as 'last minute', 'head off tomorrow', and 'hurry sale ends 11:59pm, Tuesday 6 August 2019'. Overall, then, within the two exemplar extracts presented above, active attempts are made to shift the individual from 'potential' to 'actual' consumption practices through appeals to contemporary understandings of the self, coupled with the construction of a fear or missing out and sense of urgency to consume.

Finally, as the following extract highlights, through the purchasing of a flight with Qantas, the potential consumer can realise their 'last chance' to explore 'some of the world's best destinations' as they are privileged individuals that deserve nothing but the best. This notion of consumption as an identity marker (Miles 1996) for the privileged recipient of the marketing email is further constructed through reference to 'you', the personalised potential consumer, receiving 'one more special fare' through the luxury of Business Class travel and/or the luxury and executive nature of the hotel booked, enabling the sense of class-based

distinction highlighted above (see also Casey 2010). Finally, the fear of missing out is evoked not only through reference to ‘sale ends tonight’ but also through the urgency created through the suggestion that the offer could have ‘sold out prior’ to this proposed end point.

This is your last chance to take off with a sale fare to some of the world’s best destinations. With London, New Zealand, Asia, South America, South Africa and Australia all on sale, don’t miss out on travelling the globe for less. To finish off our big worldwide sale, we couldn’t resist bringing you one more special fare. Now you can make your next business trip or holiday even more relaxing with Business Class fares on sale to destinations across Australia. Plus, Qantas Hotels is also offering a luxurious two-night stay in an Executive King Room at the Langham Melbourne for only \$699. So you can book now for a great holiday later. Be quick, sale ends tonight at 11:59pm (AEST) 29 July 2019, unless sold out prior. (Qantas)

Discussion

The socio-technical aviation regime underpins the deeply embedded nature of air passenger transportation (Geels and Kemp 2007). In lobbying on the grounds of economic importance (Korteland and Faber 2013), airlines have denied accountability for the environmental impacts of air travel (Higham et al. 2019), resisted regulation (Peeters et al. 2016) and continued to drive demand to build volume and velocity (Young 2019). Our findings are usefully informed by Young’s (2019) Marxist critique of passenger air transportation. The theme of *Adventure and discovery*, for example, urges the consumer to escape their mundane everyday life, to reflect upon their disenchantment with contemporary living (Ritzer 2013) and ‘escape it all’. Airlines offer adventure and discovery as the “apotheosis of a fully-realised life as a capitalist subject” (Young 2019:10). Airline promotion campaigns seek to define the high points, which may be prescribed by a ‘bucket list’ to represent the consummation of a “life well lived” (Thurnell-Read 2017:62). Such strategies seek to shift air passengers’ demand from the needs of individual travellers, to the drivers of accelerated demand. They are critical to the reproduction of capital through growth in the global air transport system (Young 2019), despite its heavy environmental burden (Bows-Larkin et al. 2010).

Airlines deploy *privilege* by framing their passengers as elite members of society. Air travel is constructed as the highest form of cultural capital (Thurlow and Jaworski 2006). Beyond the act of travel, frequent flyers are promised social privilege, superiority, luxury and comfort inaccessible to the ‘other’ (the non-frequent flyer member). Air Asia evoke notions of class distinction (Bourdieu 2010) through the deployment of priority, exclusivity of the deals being promoted and ‘synthetic personalisation’. Consumption is, again, shifted from the individual needs of the traveller, to wider interests in immediate airline volume, and the “...temporary relocation of workers into dedicated spaces of consumption ... through the incessant advertisement of individual tourist commodities” (Young 2019:5). This reflects the position of Randles and Mander (2009b:95) who argue that the modification of excessive air travel behaviour on a widespread scale is beyond the control of individual actors, and is networked across “intersections between social practices, the supply and circulation of products and services, and physical technical infrastructures.”

Urgency emerges from our analysis as a key driver of airline volume and velocity through immediate commitment to, and payment for, future flights. Randles and Mander (2009a) report that tourist experiences are followed by a dip in spirits on return from their holidays, which airlines can exploit as a habitual trigger to future travel bookings. While our data cannot account for this, all airlines included in our analysis used marketing strategies to convey a sense of urgency, scarcity, frenzy and panic on the part of the consumer. The mechanisms for creating false urgency included price in combination with the imposition of artificial time limitations. Value, made possible by aviation’s long-standing favourable regulation and policy setting, is key to air passenger volume. One Air New Zealand promotion claimed that flights were as cheap as breakfast for four at Ronnie’s Café in downtown Auckland where a cooked breakfast starts at \$13.50 (€7.50; \$US 8.11). Such promotions depict air travel as a care-free opportunity to (over) consume facilitated by low prices.

Geels (2016) argues the need for what he calls ‘gradual system reconfiguration’ whereby elements of the sociotechnical system are “improved, replaced or changed” (Geels 2018b:100). Our empirical analysis shows not only that airline marketing is a key component of the wider aviation socio-technical regime, but also how airline advertisements simultaneously promote social incentives and foster moral disengagement to perpetuate carbon intensive discretionary air travel (Stubenvoll and Neureiter 2021). Airline marketing

thus represents a system component that should be subject to substitution via state intervention. It is also likely that counter-campaigns by NGOs or government actors, as in the case of tobacco, are needed to counter the persuasive attempts of advertisers to build and perpetuate volume demand for carbon intensive products (Stubenvoll and Neureiter 2021).

Interestingly, two promotions – both from Qantas - made mention of environmental concerns. One offered the option ‘Tick-the-box to offset your flight and 100% of your contribution goes directly to environmental projects that protect the Reef, preserve ancient rainforests and boost renewable energy’. Another provided a link to ‘Simple tips and tricks that ensure you leave a place exactly as you found it’ via the ‘How to be a More Sustainable Traveller’ section of the Qantas website. This provides evidence of an emerging change in the messaging of airline marketing communications, perhaps as a response to Greta Thunberg’s ‘Flygskam’ movement. These ‘green shoots’ are insignificant in the scheme of our analyses. Rather it is clear that airlines have developed and refined marketing communications with consumers to foster loyalty (Young et al. 2015) and drive excessive demand. This routinisation and institutionalisation of air travel has succeeded in accelerating the turnover time of tourism, despite the heavy environmental cost of air travel (IPCC 1999; Lee et al. 2009).

Our analysis of airline marketing communications allows parallels to be drawn with other industries that use glamorisation, image, packaging, scarcity tactics and purchase incentives to encourage the (over) consumption of damaging consumer products. Airline communications, by direct email but also through websites, print and social media communications (e.g., flight sales, frequent flier programmes, tiered loyalty programmes, member benefits, and upgrades) reflect the packaging and marketing techniques of the tobacco and alcohol industries, which has been addressed in some countries via legislation to protect consumers against the high risk posed by products that damage human health (Cohen et al. 2011). Interestingly the KLM ‘Fly Responsibly’ campaign introduces a social marketing nuance that mirrors efforts to reduce alcohol harm, by suggesting that a flight (drink) or two is fine, but moderation is required to avoid flying (drinking) too much. This may represent an emerging example of airline marketing component substitution. Our empirical findings indicate that much more is necessary to overcome unconstrained consumption and moral disengagement (Stubenvoll and Neureiter 2021).

Marketing ‘green shoots’ can be critiqued as representing reform through nascent industry responsibility to avoid or delay government regulation. Clearly it is necessary to address airline marketing campaigns as an aspect of component substitution and an important step towards gradual system reconfiguration (Geels, 2018b). More broadly, system reconfiguration is addressed by Young (2019:17) who states that: “Given the centrality of the state apparatus in facilitating the production of air transport through the legalisation of production via ASAs [Air Service Agreements], the granting of monopoly protection for airlines, the control of land for airports, and the regulation of the entire air transport system, this would appear a logical place to start”. The reconfigured regime must be founded upon a model that caps airline emissions, and embraces emissions mitigation over time in line with global agreements (Scott et al. 2016). Such a reconfiguration is required to shift aviation from volume demand-based consumption to a sustainable production model.

Both the need and the opportunity for structural reform have emerged from the COVID-19 pandemic crisis. Widespread calls have been made for the COVID-19 tourism rebuild to address critical overtourism, resilience and sustainability issues. Globally, airline operations have been severely impacted by the pandemic (ICAO 2020). National carriers and private airlines (e.g., Virgin Airlines) have sought multi-billion-dollar government bailout packages to survive. With a 51% stake in Air New Zealand prior to the pandemic, the New Zealand government has extended its ownership of the airline to 82% with a \$900m bailout package announced on 20 March 2020. Further financial support may be forthcoming from the New Zealand government, which has stated that its national airline is critical to protect and rebuild its key export markets (Bradley 2020). State aid extended to airlines in the European Union alone may reach US\$37 billion in response to COVID-19 (T&E 2020).

Increasing government ownership and involvement in airline administration offers a timely opportunity for structural reform. The COVID-19 pandemic has drawn the longstanding volume growth tourism model advocated by governments and intergovernmental organisations (e.g., UNWTO, WTTC, ICAO and CLIA) into deep question. With government administration of airlines comes a rare opportunity for the state apparatus to be activated to reconfigure the airline industry (Geels 2018; Young 2019). Claims of inequality and rights to overseas holidays for low-income households, which may be used by governments and the aviation sector to justify the continuation of low-cost air travel in particular, can be easily dismantled with growing evidence of the disproportionate number of flights taken by the

(upper) middle classes (for data from the UK, see: Banister, 2018). It is the hypermobility of a minority of travellers which needs to be the focus of actions (Gössling and Humpe 2020).

Governments could require that rebuilding aviation will extend to carbon pricing (Markham et al. 2018) or other market-based mechanisms such as unilateral carbon-offsetting (Higham et al. 2019), particularly to curb recurrent frequent flying. Indeed, the bilateral negotiation of Air Service Agreements offers governments the opportunity to negotiate sustainability standards that may extend to mandated multi-lateral carbon offsetting (Gössling and Higham 2020), with air transport carbon charges being invested to build low carbon tourism socio-technical systems (Higham et al. 2019). Governments committed to their Paris (2015) nationally determined contributions (NDCs) may seek to legislate for the capping of emissions produced by airlines. Already, the French government has attached ‘green conditions’ to bailout terms for Air France, by way of the discontinuation of domestic services on routes that compete with high speed rail (Reuters 2020). This may be possible in France but such a move may be less popular in other countries that lack the existing infrastructure required to allow transport modal shifts. These are examples of component substitution (Geels, 2018b) that our empirical findings suggest should extend to airline marketing.

Conclusion: Crisis and structural reform

The current aviation regime, which is central to the global tourism system, is built upon a longstanding system of aviation exceptionalism which remains a roadblock to a climate safe tourism future (Creutzig et al. 2015). Our study of the marketing communications of selected airlines is to the best of our knowledge the first to discursively analyse the marketing strategies that airlines use to induce consumption. This is a reversal of perspective from the dominant framing in research on aviation’s climate impacts, which has all too often focused on the perspective of individual behavioural change (e.g. Cohen et al. 2013). To achieve this we developed an innovative methodology, which allowed us to take the perspective of customers who receive airline marketing communications. We found that beyond simply promoting their products, airlines actively seek to convince consumers that they need to purchase flights by triggering decision processes that may not have been engaged without deliberate intervention.

We found that adventure and discovery were deployed to create consumers as travellers in differentiation to normalised understandings of the mass tourist. Privilege was used to construct cultural capital by conferring prestige and class distinction. Exclusivity was conveyed through the use of synthetic personalisation, despite the fact that frequent flyer programmes, and air travel more broadly, are products of mass consumption (Young et al. 2015). Perhaps most notably, all airline communications used strategies to create a sense of urgency and ‘fear of missing out’ to others on cheap flights, to accelerate air travel decisions. Time was deployed artificially through explicit references to specific timeframes that aim to create a sense of supply disruption in order to give an impression of resource scarcity. Constructing a false sense of anxiety induces frenzy, panic and ‘fear of missing out’ on the part of the consumer, and is conducive to moral disengagement (Stubenvoll and Neureiter 2021).

Given KLMs recent ‘Fly Responsibly’ campaign, we note that purposive sampling of airlines across certain selection criteria would have enhanced the transferability of the findings presented in this paper. Notwithstanding this point, it is evident that the marketing efforts of airlines included in our analyses are designed to drive excessive demand and encourage over-consumption. This is done to create new and perpetuate existing social practices, with the aim of building passenger volume through the acceleration of tourism. Not only do airline marketing campaigns encourage consumption, they construct consumption as an identity marker (Miles 1996), and entrench air travel social practices in consumer societies (Kuijar and Bakker 2015). Young et al. (2015:56) note that it is advantageous for airlines to argue that it is the “... irresponsible individual, through their unrestrained and excessive consumption, who is the ultimate source of undesirable global climate externalities”. Yet our research confirms that the marketing communications of airlines systematically promote moral disengagement and drive unrestrained and excessive consumption. Beyond meeting basic human needs, the consumption of flying is in large part driven by the ideological manufacture of desire (Marcuse 1964; Young et al. 2014) through targeted and direct marketing communications that are intended to ‘create’ consumers and accelerate consumption.

Our paper contributes to socio-technical transitions theory (Geels et al. 2015) specifically as it relates to component substitution within the global aviation socio-technical regime (Figure 1). Within this context it is clear that the reformist approaches of intergovernmental

organisations such as the UNWTO, WTTC and ICAO have failed (Peeters et al. 2016). An alternative ideology of *reconfiguration* advances transitions across entire systems (Geels 2018a, 2018b), which requires co-evolutionary changes in technologies, markets, institutional frameworks, cultural meanings and everyday life practices. Our research highlights the need to re-evaluate the role of marketing as a key component of wider system transition. In the case of global aviation, a starting point is to move away from airline communications that manipulate desire and encourage unrestrained consumption, while actively suppressing the implications of air travel for the global environment (Young et al. 2015). Nascent evidence of ‘green shoots’ in some airline marketing campaigns (KLM 2020) is belated and inadequate. Policy interventions will be required to regulate airline marketing, as arises in relation to other consumer products (e.g., tobacco and alcohol) that have damaging public health outcomes (Cohen et al. 2011). New models of social marketing communications are required, extending to counter-campaigns, to build resistance to persuasive marketing, promote ethical consumption, and challenge traditional industry channels that reflect the growth paradigm.

Our research amplifies the need for structural reconfiguration of the global aviation regime (Geels 2002; 2007; Peeters et al. 2016; Rosenbloom et al. 2020) through component substitution (Geels, 2018b) to move away from the current model based on volume and velocity (Young 2019). The new model must be based on a rejection of aviation exceptionalism under the Paris Agreement (2015), which will inevitably require airlines to cap their emissions as a first step towards reducing total aviation emissions over time. Aside from the high environmental cost of aviation, the current socio-technical regime is built upon heavy public revenue loss due to tax exemptions (Korteland and Faber 2013), low margins (IATA 2019a,b) and multi-billion dollar subsidies to survive periodic crises (Gössling, Fichert and Forsyth 2017). The system-wide disruption caused by COVID-19 offers a timely opportunity to undertake structural reform. It is imperative that the government bailout packages sought by airlines come with environmental conditions (Laville 2020). Such conditions should include the regulation of airline marketing campaigns to seek a sustainable balance between production (supply) and consumption (demand), in the interests of a climate-safe future.

References:

- Air New Zealand Sustainability Advisory Panel. 2017. "Sustainability Report 2017".
<https://p-airnz.com/cms/assets/PDFs/sustainability-report-2017-v2.pdf> (accessed September 18, 2018).
- Alcott, B. 2005. Jevons' paradox. *"Ecological Economics"*, 54 (1), 9-21.
- ATAG. 2017. *"Flying in Formation: Air transport and the Sustainable Development Goals"*. Air Transport Action Group: Switzerland.
- Bandura, A. 2016. *"Moral disengagement: How people do harm and live with themselves"*. New York: Worth publishers.
- Banister, D. 2018. *"Inequality in Transport, Alexandrine Press"*, Oxford, UK.
- Bourdieu, P. 2010. *"Distinction: a social critique of the judgement of taste"*. (R. Nice Trans) Routledge: London.
- Bowen, J. 2010. *"The Economic Geography of Air Transportation"*. London: Routledge.
- Bows, A., and Anderson, K.L. 2007. "Policy clash: can projected aviation growth be reconciled with the UK Government's 60% carbon-reduction target?" *Transport Policy* 14 (2), 103–110.
- Bows-Larkin, A. (2015). "All adrift: aviation, shipping, and climate change policy". *Climate Policy*, 15(6), 681-702.
- Bows-Larkin, A., Mander, S. L., Traut, M. B., Anderson, K. L., and Wood, F. R. 2010. "Aviation and climate change—the continuing challenge". *Encyclopedia of aerospace engineering*, 1-11.
- Bows-Larkin, A., Mander, S. L., Traut, M.B., Anderson, K.L. and Wood, F.R. 2016. "Aviation and Climate Change: The Continuing Challenge". Tyndall Centre for Climate Change Research, School of Mechanical Aerospace and Civil Engineering, University of Manchester, Manchester, UK.
<https://www.researchgate.net/publication/303446744> (accessed January 31, 2018).
- Bradley, G. 2020. "Coronavirus: Air New Zealand gets government \$900 million loan facility".
https://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=12318346 (accessed March 17, 2021).
- Braun, V., and Clarke, V. 2006. "Using thematic analysis in psychology". *Qualitative research in psychology*, 3(2), 77-101.

- Braun, V., Clarke, V., Hayfield, N., and Terry, G. 2019. "Thematic analysis". In P, Liamputtong Eds. *Handbook of research methods in health social sciences*, 843-860. Springer: Singapore.
- Büchs, M., and Koch, M. 2019. "Challenges for the degrowth transition: The debate about wellbeing". *Futures*, 105, 155-165.
- Burkitt, I. 2008. "Social selves: Theories of self and society". 2nd Edition. Sage: London.
- Casey, M. E. 2010. "Low cost air travel: Welcome aboard?" *Tourist Studies*, 10 (2), 175-191.
- Cohen, S.A., Higham, J.E.S., and Cavaliere, C.T. 2011. "Binge flying: Behavioural addiction and climate change". *Annals of Tourism Research*, 38 (3), 1070-1089.
- Cohen, S.A., Higham, J.E.S. and Reis, A. 2013. "Sociological barriers to sustainable discretionary air travel behaviour". *Journal of Sustainable Tourism*. 21 (7): 982-998.
- Cornelissen, S. 2017. "The global tourism system: Governance, development and lessons from South Africa". Routledge.
- Cosme, I., Santos, R., and O'Neill, D. W. 2017. "Assessing the degrowth discourse: A review and analysis of academic degrowth policy proposals". *Journal of Cleaner Production*, 149, 321-334.
- Creutzig, F., P. Jochem, O. Y. Edelenbosch, L. Mattauch, D. P. van Vuuren, D. McCollum, and J. Minx 2015. "Transport: A Roadblock to Climate Change Mitigation?" *Science*, 350:911.
- Decrop, A. 2004. "Trustworthiness in qualitative tourism research". In *Qualitative research in tourism: Ontologies, epistemologies and methodologies* edited by J. Phillimore and L. Goodson. London: Routledge. Pp. 156-169.
- Doganis, R. 2002. "*Flying off course: The economics of international airlines*". Third edition. London: Routledge.
- Dolnicar, S., Grabler, K., Grün, B., and Kulnig, A. 2011. "Key drivers of airline loyalty". *Tourism Management*, 32 (5), 1020-1026.
- Duval, D. T. 2013. "Critical issues in air transport and tourism". *Tourism Geographies*, 15 (3), 494-510.
- Echtner, C., and Prasad, P. 2003. "The Context of Third World Tourism Marketing". *Annals of Tourism Research*, 30, 660-682.
- EFTE (European Federation for Transport and Environment). 2016. "Aviation Emissions and the Paris Agreement: Europe and ICAO Must Ensure Aviation Makes a Fair Contribution to the Paris Agreement's Goals." <http://www.transportenvironment.org> (accessed November 21, 2018).

- Eickhout, B. and K. Taylor. 2016. “Planes Need to Stop Existing in a Parallel Universe When It Comes to the Climate Fight”.
<https://www.theguardian.com/environment/2016/sep/26/planes-need-to-stop-existing-in-a-parallel-universe-when-it-comes-to-the-climate-fight> (accessed February 18, 2017).
- Fairclough, N. 2013. “Critical discourse analysis: The critical study of language”. 3rd Edition. Routledge: Abingdon.
- Firat, A. F., and Venkatesh, A. 1995. “Liberatory postmodernism and the re-enchantment of consumption”. *Journal of Consumer Research*, 22 (3), 239-267.
- Fuchs, D. A., and Lorek, S. 2005. “Sustainable Consumption Governance: A History of Promises and Failures”. *Journal of Consumer Policy*, 28 (3), 261-288.
- Gascón, J. 2019. “Tourism as a right: a “frivolous claim” against degrowth?” *Journal of Sustainable Tourism*, 1-14.
- Geels, F. W. 2002. “Technological transitions as evolutionary reconfiguration processes: A multi-level perspective and a case-study”. *Research Policy*, 31, 1257-1274.
- Geels, F. W. 2012. “A socio-technical analysis of low-carbon transitions: introducing the multi-level perspective into transport studies”. *Journal of transport geography*, 24, 471-482.
- Geels, F. W. 2018a. “Disruption and low-carbon system transformation: Progress and new challenges in socio-technical transitions research and the Multi-Level Perspective”. *Energy Research and Social Science*, 37, 224-231.
- Geels, F. W. 2018b. “Low-carbon transition via system reconfiguration? A socio-technical whole system analysis of passenger mobility in Great Britain (1990–2016)”. *Energy Research and Social Science*, 46, 86-102.
- Geels, F. W., McMeekin, A., Mylan, J., and Southerton, D. 2015. “A critical appraisal of Sustainable Consumption and Production research: The reformist, revolutionary and reconfiguration positions”. *Global Environmental Change*, 34, 1-12.
- Geels, F. W., Sovacool, B. K., Schwanen, T., and Sorrell, S. 2017. “Sociotechnical transitions for deep decarbonization”. *Science*, 357(6357), 1242-1244.
- Goetz, A.R. and Vowles, T.M. 2009. “The good, the bad, and the ugly: 30 years of US airline deregulation”. *Journal of Transport Geography*, 17: 251–263.
- Gössling, S., Fichert, F., and Forsyth, P. (2017). “Subsidies in aviation”. *Sustainability*, 9(8), 1295.

- Gössling, S., Hanna, P., Higham, J., Cohen, S., and Hopkins, D. 2019. "Can we fly less? Evaluating the 'necessity' of air travel". *Journal of Air Transport Management*, 81, 101722.
- Gössling, S., and Higham, J.E.S. 2020. "The low-carbon imperative: Destination management under urgent climate change". *Journal of Travel Research*.
<https://doi.org/10.1177/0047287520933679>
- Gössling, S. and Humpe, A. 2020. "The global scale, distribution and growth of aviation: Implications for climate change". *Global Environmental Change*, Vol. 65.
<https://www.sciencedirect.com/science/article/pii/S0959378020307779>
- Hailin, Z. Y. Y. 2013. "Research on Characteristics of Information Propagation Network of the Mass Unexpected Incident: A Case Analysis of Panic Buying of Candles" [J]. *Journal of Intelligence*, 7: 53-67.
- Hanna, P. 2013. "A break from 'reality': An investigation into the 'experiments with subjectivity' on offer within the promotion of sustainable tourism in the UK". *Journal of Consumer Culture*, 13 (3), 366-386.
- Hargreaves, T. 2011. "Practice-ing behaviour change: Applying social practice theory to pro-environmental behaviour change". *Journal of Consumer Culture*, 11 (1), 79-99.
- Hargreaves, T., Haxeltine, A., Longhurst, N. and Seyfang, G. 2011. "Sustainability transitions from the bottom-up: Civil society, the multi-level perspective and practice theory". CSERGE Working Paper, No. 2011-01, University of East Anglia, The Centre for Social and Economic Research on the Global Environment (CSERGE), Norwich
- Hayfield, N., Terry, G., Clarke, V., and Ellis, S. 2019. "'Never Say Never?' Heterosexual, Bisexual, and Lesbian Women's Accounts of Being Childfree". *Psychology of Women Quarterly*, 43 (4), 526-538.
- Higham, J.E.S., Cohen, S.A., and Cavaliere, C.T. 2014. "Climate change, discretionary air travel and the 'flyers' dilemma'". *Journal of Travel Research*. 53 (4): 462-475.
- Higham, J., Ellis, E., and Maclaurin, J. 2019. "Tourist Aviation Emissions: A Problem of Collective Action." *Journal of Travel Research*, 58 (4), 535-548.
- IATA 2019a. "Industry Statistics. Fact Sheet June 2019".
https://www.iata.org/pressroom/facts_figures/fact_sheets/Documents/fact-sheet-industry-facts.pdf (accessed April 18, 2020).

- IATA 2019b. “WATS. World Air Transport Statistics 2019”.
<https://www.iata.org/contentassets/a686ff624550453e8bf0c9b3f7f0ab26/wats-2019-mediakit.pdf> (accessed June 24, 2020).
- ICAO. 2016. “2016 Environmental Report”. www.icao.int/environmental-protection/Pages/env2016.aspx (accessed November 21, 2016).
- ICAO. 2019a. “The world of air transport in 2018”. <https://www.icao.int/annual-report-2018/Pages/the-world-of-air-transport-in-2018.aspx> (accessed December 18, 2018).
- ICAO. 2019b. “ICAO and the United Nations Sustainable Development Goals”.
<https://www.icao.int/about-icao/aviation-development/Pages/SDG.aspx> (accessed January 18, 2020).
- ICAO 2020. “Effects of Novel Coronavirus (COVID-19) on Civil Aviation: Economic Impact Analysis”. https://www.icao.int/sustainability/Documents/COVID-19/ICAO_Coronavirus_Econ_Impact.pdf (accessed March 18, 2021).
- IPCC (Intergovernmental Panel on Climate Change). 1999. Lister, D., Griggs, D. J., McFarland, M., and Dokken, D. J. (Eds.). “*Aviation and the Global Atmosphere: A Special Report of the Intergovernmental Panel on Climate Change*”. Cambridge University Press.
- International Maritime Organization (2020). “Reducing greenhouse gas emissions from ships”. <https://www.imo.org/en/MediaCentre/HotTopics/Pages/Reducing-greenhouse-gas-emissions-from-ships.aspx> (accessed September 25, 2020).
- Ivanova, D., and Wood, R. 2020. “The unequal distribution of household carbon footprints in Europe and its link to sustainability”. *Global Sustainability*, 3, doi:10.1017/sus.2020.12
- KLM Royal Dutch Airlines. 2020. “Fly Responsibly”.
https://flyresponsibly.klm.com/gb_en#home (accessed March 29, 2021).
- Korteland, M. and Faber, J. 2013. “Estimated revenues of VAT and fuel tax on aviation”. Report commissioned by the European Federation for Transport and Environment.
https://www.transportenvironment.org/sites/te/files/publications/CE_Delft_7B52_Estimated_revenues_of_VAT_and_fuel_tax_on_aviation_def.pdf (accessed September 12, 2015).
- Kuijjer, L., and Bakker, C. 2015. “Of chalk and cheese: Behaviour change and practice theory in sustainable design”. *International Journal of Sustainable Engineering*, 8 (3), 219-230.

- Laville, S. 2020. "Coronavirus: airlines seek €12.8bn in bailouts without environmental conditions attached". *The Guardian*.
<https://www.theguardian.com/world/2020/apr/22/airlines-seek-128bn-in-coronavirus-bailouts-without-environmental-conditions-attached> (accessed April 29, 2020).
- Lebel, L., and Lorek, S. 2008. "Enabling Sustainable Production-Consumption Systems". *Annual Review of Environment and Resources*, 33 (1), 241-275.
- Lee, D. S., Fahey, D. W., Forster, P. M., Newton, P. J., Wit, R. C., Lim, L. L., ... and Sausen, R. 2009. "Aviation and global climate change in the 21st century". *Atmospheric Environment*, 43 (22-23), 3520-3537.
- Lenzen, M., Sun, Y. Y., Faturay, F., Ting, Y. P., Geschke, A., and Malik, A. 2018. "The carbon footprint of global tourism". *Nature Climate Change*, 8 (6), 522-528.
- Marcuse, H. 1964. "One-dimensional man: Studies in the ideology of advanced industrial society". Boston: Beacon.
- Miles, S. 1996. "The cultural capital of consumption: Understanding 'postmodern' identities in a cultural context". *Culture and Psychology*, 2 (2), 139-158.
- Naidoo, R. and Fisher, B. 2020. "Sustainable Development Goals: pandemic reset". *Nature* 583: 198-201.
- O'Reilly, C. C. 2005. "Tourist or traveller? Narrating backpacker identity". *Discourse, communication and tourism*, 150-169.
- Pallaro, E., Subramanian, N., Abdulrahman, M. D., and Liu, C. 2015. "Sustainable production and consumption in the automotive sector: Integrated review framework and research directions". *Sustainable Production and Consumption*, 4, 47-61.
- Patton, M.Q. 2002. "*Qualitative research and evaluation methods*". Thousand Oaks: Sage Publications.
- Peeters, P., Gössling, S., and Becken, S. 2006. "Innovation towards tourism sustainability: climate change and aviation". *International Journal of Innovation and Sustainable Development*, 1 (3), 184-200.
- Peeters, P., Higham, J., Kutzner, D., Cohen, S., and Gössling, S. 2016. "Are technology myths stalling aviation climate policy?" *Transportation Research Part D: Transport and Environment*, 44, 30-42.
- Pilcher, J. 2011. "No logo? Children's consumption of fashion". *Childhood*, 18 (1), 128-141.
- Phillips, T., and Aarons, H. 2007. "Looking 'East': An Exploratory Analysis of Western Disenchantment". *International Sociology*, 22, 325-341.

- Przybylski, A. K., Murayama, K., DeHaan, C. R., and Gladwell, V. 2013. “Motivational, emotional, and behavioural correlates of fear of missing out”. *Computers in Human Behavior*, 29 (4), 1841-1848.
- Randles, S., and Mander, S. 2009. “Practice(s) and ratchet(s): A sociological examination of frequent flying”. In S. Gössling and P. Upham (Eds.), *Climate change and aviation: Issues, challenges and solutions* (pp. 245–271). London: Earthscan.
- Reuters. 2020. “Air France must cut emissions, domestic flights for aid – minister”.
https://af.reuters.com/article/commoditiesNews/idAFL5N2CH4CO?utm_source=CP+Daily&utm_campaign=44804c451a-CPdaily29042020&utm_medium=email&utm_term=0_a9d8834f72-44804c451a-36266557 (accessed November 11, 2020).
- Ritzer, G. 2013. “The McDonaldisation of society”. 20th Anniversary Edition. Sage: London
- Ritzer, G., and Liska, A. 1997. “McDisneyization' and 'Post Tourism': Complementary Perspectives on Contemporary Tourism”. In C. Rojek and J. Urry (Eds.), *Touring Cultures*. London: Routledge. pp. 106-120.
- Rosenbloom, D., Markard, J., Geels, F. W., and Fuenfschilling, L. 2020. “Opinion: Why carbon pricing is not sufficient to mitigate climate change—and how “sustainability transition policy” can help”. *Proceedings of the National Academy of Sciences*, 117(16), 8664-8668.
- Roy, V., and Singh, S. 2017. “Mapping the business focus in sustainable production and consumption literature: Review and research framework”. *Journal of Cleaner Production*, 150, 224-236.
- Schneider, F., Kallis, G., and Martinez-Alier, J. 2010. “Crisis or opportunity? Economic degrowth for social equity and ecological sustainability”. *Journal of Cleaner Production*, 18(6), 511-518.
- Scott, D., Hall, C. M. and Gössling, S. 2019. “Global tourism vulnerability to climate change”. *Annals of Tourism Research*, 77, 49-61.
- Shou, B., Xiong, H., and Shen, X. M. 2013. “Consumer panic buying and quota policy under supply disruptions”. Working paper. Hong Kong: City University of Hong Kong.
- Shove, E. 2014. “Putting practice into policy: reconfiguring questions of consumption and climate change”. *Contemporary Social Science*, 9 (4), 415-429.
- Shove, E. 2018. “What is wrong with energy efficiency?” *Building Research and Information*, 46 (7), 779-789.

- Smith, S.P. 2018. "Instagram abroad: performance consumption and colonial narrative in tourism". *Postcolonial Studies*, 21 (2), 171-191.
- Stephenson, J., Spector, S., Hopkins, D., and McCarthy, A. 2018. "Deep interventions for a sustainable transport future". *Transportation Research Part D: Transport and Environment*, 61, 356-372.
- Stubenvoll, M., and Neureiter, A. (2021). "Fight or Flight: How Advertising for Air Travel Triggers Moral Disengagement". *Environmental Communication*, <https://doi.org/10.1080/17524032.2021.1899956>
- Sustainable Development Goals Knowledge Platform. 2019. "*Sustainable production and consumption*". <https://sustainabledevelopment.un.org/topics/sustainableconsumptionandproduction> (accessed December 18, 2019).
- T&E 2020. "Bailout tracker". <https://www.transportenvironment.org/what-we-do/flying-and-climate-change/bailout-tracker> (accessed January 18, 2021).
- Terrenoire et al. 2019. "The contribution of carbon dioxide emissions from the aviation sector to future climate change". *Environmental Research Letters*, 14(8), 084019
- Thurlow, C., and Jaworski, A. 2006. "The alchemy of the upwardly mobile: symbolic capital and the stylization of elites in frequent-flyer programmes". *Discourse and Society*, 17 (1) 99-135.
- Thurnell-Read T. 2017. "'What's on your bucket list?': Tourism, identity and imperative experiential discourse". *Annals of Tourism Research*, 67, 58–66.
- Tukker, A., Emmert, S., Charter, M., Vezzoli, C., Sto, E., Munch Andersen, M.,... Lahlou, S. 2008. "Fostering change to sustainable consumption and production: an evidence based view". *Journal of Cleaner Production*, 16 (11), 1218-1225.
- UNEP. 2015. "*Sustainable Consumption and Production: A Handbook for Policymakers*". Global Edition. UNEP.
- United Nations. 2015a. "Sustainable Development. Goal 12". <https://sustainabledevelopment.un.org/topics/sustainableconsumptionandproduction> (accessed September 2, 2016).
- United Nations. 2015b. "*Transforming our world: The 2030 Agenda for Sustainable Development*". United Nations.
- United Nations. 2019. "*Special Edition: Progress towards the Sustainable Development Goals*". Economic and Social Council, UN.

- UNWTO. 2019. “*Baseline Report on the Integration of Sustainable Consumption and Production Patterns into Tourism Policies*”. UNWTO: Madrid, Spain.
- UNWTO. 2020. “Global and Regional Tourism Performance. Mode of Transport World 2018”. <https://www.unwto.org/global-and-regional-tourism-performance> (accessed September 30, 2020).
- Urry, J. 2002. “*The Tourist Gaze*”. London: Sage Publications.
- Urry, J. 2010. “Sociology Facing Climate Change”. *Sociological Research Online*, 15 (3), 1-3.
- Urry, J. 2012. “Social networks, mobile lives and social inequalities”. *Journal of Transport Geography*, 21, 24-30.
- Wang, C., Ghadimi, P., Lim, M. K., and Tseng, M.-L. 2019. “A literature review of sustainable consumption and production: A comparative analysis in developed and developing economies”. *Journal of Cleaner Production*, 206, 741-754.
- Warde, A. 2005. “Consumption and Theories of Practice”. *Journal of Consumer Culture*, 5(2), 131-153.
- Weiss, M., and Cattaneo, C. 2017. “Degrowth - Taking Stock and Reviewing an Emerging Academic Paradigm”. *Ecological Economics*, 137, 220-230.
- Welch, D. 2015). “Sustainable Production and Consumption”. In *International Encyclopedia of the Social and Behavioral Sciences* (pp. 839-844).
- Welch, D., and Southerton, D. 2019. “After Paris: transitions for sustainable consumption”. *Sustainability: Science, Practice and Policy*, 15(1), 31-44.
- Whitmarsh, L., Capstick, S., Moore, I., Köhler, J. and Le Quéré, C., 2020. “Use of aviation by climate change researchers: Structural influences, personal attitudes, and information provision”. *Global Environmental Change*, 65.
<https://www.sciencedirect.com/science/article/abs/pii/S0959378020307676>
- Willig, C. 2001. “*An Introduction to Qualitative Research in Psychology: Adventures in Theory and Method*”. Buckingham: Open University Press.
- Yoon, J., Narasimhan, R., and Kim, M. K. 2018. “Retailer’s sourcing strategy under consumer stockpiling in anticipation of supply disruptions”. *International Journal of Production Research*, 56 (10), 3615-3635.
- Young, M. 2019. “Capital, class and the social necessity of passenger air transport”. *Progress in Human Geography*, 0309132519888680.
- Young, M., Higham, J. E., and Reis, A. C. 2014. “‘Up in the air’: A conceptual critique of flying addiction”. *Annals of Tourism Research*, 49, 51-64.