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Flying in the face of environmental concern: why green consumers continue to fly

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Abstract Some unsustainable consumer behaviours have proved extremely hard to change or even challenge. Despite the fact that flying can be more damaging than any other activity that an individual can undertake, many otherwise green consumers still choose to fly, offering an opportunity to elicit narratives about the differences between their attitudes and behaviours. Qualitative interview data were gathered from self-selected green consumers and set within a cognitive dissonance analytical framework. Four strategies were uncovered: not changing travel behaviour (but offering justifications related to travel product, travel context or personal identity); reducing or restricting flights; changing other behaviours to compensate for flying; and stopping flying. This analysis furthers research on green consumer rationales for (un)sustainable behaviours and suggests several avenues for sustainable marketing management.

Keywords rationales; attitude-behaviour gap; sustainability marketing; cognitive dissonance; sustainable consumption; travel decisions

There is evidence across a wide range of environmentally responsible behaviours that people advocate specific products or product groups, conservation behaviours and lifestyle choices but that awareness or approval does not necessarily lead to behaviour change (Barr, 2004; Budeanu, 2007; Gupta & Ogden, 2009; Prillwitz & Barr, 2011). This is often termed the attitude-behaviour gap (Moraes, Carrigan, & Szmigin, 2012; Peattie, 2010). There is a substantial amount of academic work focused on the attitude-behaviour gap in sustainability within the marketing literature (Belz & Peattie, 2009) and across the social sciences (Carrington, Neville, & Whitwell, 2010). The most

common approach to this problem has been to try to construct models and other quantitative instruments in order to measure, predict or reduce the gap. See Hassan, Shiu, and Shaw (2014) for an excellent overview of this genre of work.

However, there is another, smaller and more fragmented group of approaches that seek to understand the differences between attitudes or intentions and behaviours from the point of view of the consumer. These qualitative approaches open the black box of the attitude-behaviour gap by investigating consumers' own rationales for the differences between their espoused ideals and their actual behaviour. One strand of this work includes the multinational study by Devinney, Auger, and Eckhardt (2010), who found that although behaviours similarly fall short of ideals in a range of different countries, the justifications for this tend to be culturally located and nation specific (Eckhardt, Belk, & Devinney, 2010). Another qualitative approach is the work on neutralization, as championed by Chatzidakis and colleagues (Chatzidakis, Hibbert & Smith, 2006; Chatzidakis, Hibbert, & Smith, 2007; Chatzidakis, Smith, & Hibbert, 2009; Piacentini, Chatzidakis, & Banister, 2012; see also Strutton, Vitell, & Pelton, 1994) which hails from the sociology of deviance literature and focuses on examining the ways in which people rationalise behaviour which breaks social norms. Other scholars have employed a sister theory, which, like neutralization theory, was born in the 'cognitive revolution' of the late 1950s (Maruna & Copes, 2005) and also has its roots in the notion that individuals have an innate drive to be consistent (Festinger, 1957): cognitive dissonance theory. The research presented here falls into this last tradition building on recent work that has reintroduced the notion of cognitive dissonance into both the travel and tourism literature (Tanford & Montgomery, 2014) and in the marketing literature (Gregory-Smith, Smith, & Winklhofer, 2013) by applying cognitive dissonance theory in this novel context of examining individual rationales for the differences between their attitudes and behaviours. This will both extend the ways in which cognitive dissonance has been used in the past and, more importantly, cast new light on the problem of understanding the attitude-behaviour gap from the perspective of the individual consumer.

Introducing cognitive dissonance theory

Cognitive dissonance (Festinger, 1957) is a theory in the social psychology tradition that is underpinned by the consistency principle. The basis for this theory is that there is an 'innate human desire to be consistent' (Thøgersen, 2004, p. 101). In other words, people become uncomfortable when their actions are out of line with their espoused beliefs. Experiments have shown that cognitive dissonance can lead to behaviour change. Interventions which made use of the dissonance concept by underlining the inconsistencies in householders' espoused green attitudes and their behaviours have succeeded in reducing household water (Aitken, McMahon, Wearing, & Finlayson, 1994; Dickerson, Thibodeau & Aronson, 1992) and energy consumption (Kantola, Syme, & Campbell, 1984).

The basis of cognitive dissonance theory is that '...people's mental representations of their beliefs, attitudes, and attitudinally significant behaviors, decisions, and commitments tend to exist in harmony with one another, and that disharmony motivates cognitive changes designed to restore harmony' (Eagly & Chaiken, 1993, p. 469). Cognitive dissonance theory offers insight into the conditions that need to be met in order for cognitive dissonance around a specific inconsistency to occur. This is

important for social scientists engaged in trying to change consumer behaviour because cognitive dissonance between attitudes or beliefs about the self and an individual's behaviour presents the individual with motivation for change; the greater the dissonance, the greater the intrinsic pressure to reduce or eliminate that dissonance.

Since cognitive dissonance involves self-concept (Aronson, 1968), it is very personal: what is experienced by one person as dissonant may not be perceived as dissonant by another. If an individual does experience cognitive dissonance, behaviour change is not, of course, the only option for tackling their disquiet. Festinger (1957) theorised that an individual could also reduce dissonance by making changes to their attitudes or beliefs or by adding consonant ideas to their belief structures in order to outweigh the dissonant elements. Thus, an individual who thinks of themselves as environmentally responsible but who does not act in accordance with their principles and perceives that this might be regarded as inconsistent has two kinds of options: they can change their behaviour (or their cognitions about that behaviour) or they can change their attitudes (or their cognitions about their attitudes).

Changing behaviour or cognitions about behaviour

Cognitive dissonance is often caused by the assessment of past behaviour, and so although it is not possible to alter that, it is possible to *change future behaviours* in order to reduce cognitive dissonance. This is the typical scenario often presented by marketers drawing on cognitive dissonance concepts (e.g. Kim, 2011). Although the original theory of cognitive dissonance (Festinger, 1957) suggested that any two inconsistent cognitions could cause dissonance, Aronson (1968) refined this by positing that only those cognitions that involved self-concept would. Thus in order to feel cognitive dissonance, the two discrepant cognitions need to be a challenge to an individual's idea of themselves as a competent or effective person. Aronson's (1968) *self-consistency theory* predicts that cognitive dissonance will motivate an individual to make a specific repair to the situation. However, another theorist (Steele, 1988; Steele & Liu, 1983) suggests in his *self-affirmation theory* that the repair that is made does not need to be specific, but can be anything that reaffirms the individual's positive sense of self. And so the repair might be immediate and/or related, but equally, it may be delayed and/or unrelated.

Changing attitudes or cognitions about attitudes

Cognitive dissonance can also be reduced by changing attitudes so that behaviour appears to be more in line with them. If cognitive dissonance is imagined as a scale that is out of balance, consumers are able to rebalance the scale and reduce cognitive dissonance by adding weight to the side of the scale that represents the outweighed discrepant behaviour (Frey, 1981; Mills, 1965; Sherman & Gorkin, 1980). This reduces dissonance because it adds *consonant elements* to the equation, reducing the difference between the two elements and therefore lowering dissonance.

Both theorists and experimental psychologists (Collins & Hoyt, 1972; Festinger & Carlsmith, 1959) agree that cognitive dissonance will not occur where an individual perceives themselves to have little choice over their behaviour. In other words, dissonance will not occur where an individual can *attribute the inconsistency experienced to external forces* (Seymour, 1986; Thøgersen, 2004).

Thøgersen's (2004) study underlined the fact that the drive to reduce inconsistency between attitudes and behaviour was significantly lower in consumers who attached low moral importance to environmentally responsible behaviours. So another strategy for reducing cognitive dissonance would be for individuals to reduce their evaluation of the importance of their green values (Simon, Greenberg, & Brehm, 1995), compared with other values that are important to them.

Finally, studies (e.g. Zanna & Aziza, 1976) show that *distraction* can reduce cognitive dissonance, thus any dissonance raised by a decision may be quickly dissipated and might not affect either attitudes or behaviour.

Cognitive dissonance theory is used in this study as an analytical framework in the context of qualitative research, which allows an examination of whether and how consumers experience and resolve cognitive dissonance between self-reported green values (and other environmentally responsible behaviours) in their decision-making about recent air travel (non)purchases. Additionally, because changes produced by cognitive dissonance have the potential to be permanent and can transfer to new situations (Aronson, 1980), this analysis may offer marketers with sustainability agendas new strategies to tackle this entrenched situation.

Cognitive dissonance theory is not without its critics (see, for example, Aronson, 1992 (and related articles); Cummings & Venkatesan, 1976; Devine, Tauer, Brown, Elliott & Vance, 1999; Wilder, 1992 for a range of critiques). Aronson (1992) notes that cognitive dissonance experiments fell out of fashion in the 1970s due to their labour-intensive nature and the deception of research subjects that was often required. By contrast, qualitative research designs would seek to elicit discussions of any naturally occurring dissonance, rather than create it for the purposes of the research, meaning that no deception is required. Some commentators have pointed out the unreliability of trying to measure the magnitude of dissonance (Cummings & Venkatesan, 1976), and although a qualitative assessment of dissonance from transcripts will not be concerned with measuring dissonance in an objective sense, but rather understanding its causes and consequences, the point about the degree of dissonance remains in principle an interesting one, especially if different degrees of dissonance might be associated with the development of justifications as opposed to behaviour change, for example. One of the major critiques of this theory is the difficulty of transferring the cognitive dissonance experiment out of the laboratory and into real-life contexts (Cooper, 2007). Although many of the issues raised by these commentators are related to the specific ways that laboratory experiments have been designed and the ways in which dissonance has been isolated and measured through these designs, and would therefore not be strictly applicable to the use of the theory as an analytical approach to qualitative data, the general point, that cognitive dissonance is hard to isolate and define in real-life situations, is an important point which has applicability to any research. In terms of sustainability research more specifically, the focus on cognitions rather than behaviours is both an advantage in that it enhances our understanding of these cognitive phenomena but at the same time could be understood as a shortcoming of cognitive dissonance theory as an analytical frame if dissonance will not necessarily become expressed in terms of concrete behaviour changes.

The decision of whether or not to fly: a recipe for dissonance

In order to examine what is going on inside the attitude-behaviour gap, this study selected consumer decision-making around flying as its focus. Flying decisions have been selected for two main reasons: firstly, they are notoriously contentious for green consumers and resistant to change (Higham, Cohen, & Cavaliere, 2014); and secondly, because while they are decisions accessible to a wide range of individuals, they are not high frequency, habitual decisions for most. Thus by asking individuals to discuss their decisions to fly or not to fly we expect to find narratives located within the attitude-behaviour gap. Further, decisions about flying represent an excellent focus for the examination of green consumer rationales because these decisions are located between two powerful social narratives: flying is normal; and flying is damaging the environment. This will be discussed below.

Aviation is currently growing faster than any other transport sector (Kahn Ribeiro et al., 2007) at a rate of around 5% per annum (International Air Transport Association [IATA], 2013). In 2011, international passenger numbers worldwide surpassed 2.7 billion (International Civil Aviation Organization [ICAO], 2013). Over the last few decades, air travel has changed from an expensive way of travel only accessible to a minority of travellers, to a normal part of vacation and business travel. Air travel has never been so cheap or accessible, with long-haul student travel and family holidays abroad becoming a social norm (Graham, 2006; Mason, 2005). Shaw and Thomas (2006) characterise ours as an era of hyper-mobility where air travel has changed from being an aspiration, to a social norm, to something to which consumers have begun to feel they have a right. Research shows that behaviours that are understood to be normal are harder to question and to change (Rettie, Burchell, & Riley, 2012).

However, air travel is also known to have significant environmental impact, primarily through the greenhouse gas (GHG) emissions from the combustion of aviation fuel (Gössling et al., 2007). A body of literature continues to grow around expressed concerns with the contribution that air travel has on CO₂ emissions and climate change (Becken, 2007; Brand & Boardman, 2008; Gössling & Upham, 2009; Hares, Dickinson, & Wilkes, 2010). Simultaneously literature grows around consumer awareness of climate change issues (Higham & Cohen, 2011; Khoo-Lattimore & Prideaux, 2013) and the fact that there are few signs of behaviour change amongst even the most environmentally aware travellers (Barr, Shaw, Coles & Prillwitz, 2010; Higham et al., 2014). In fact, both Barr et al. (2010) and Böhler, Grischkat, Haustein, and Hunecke (2006) found that the greenest individuals were the most frequent long-haul (air) travellers.

Currently, government policies do not help lessen these tensions for the individual consumer as they predominantly take a 'balanced' approach to the future of air travel; on the one hand, they recognise the importance of air travel to the economy and people's desire to fly, but, on the other hand, they are clearly conscious of environmental impacts (DfT, 2013). Thus there are plans to continue to grow this industry in the short to medium term (Carins & Newson, 2006; DfT, 2006), despite calls from governments to avoid unnecessary flying (e.g. DEFRA, 2008). This current policy position therefore places the decision of whether or not to fly firmly with the individual consumer. There has been a shift from climate change being conceptualised as a macro scale challenge or problem, to one which

relies on the individual consumer or citizen to mitigate (Barr & Prillwitz, 2012; Barr, et al., 2010; Berglund & Matti, 2006). This is not out of line with many other aspects of environmental decision-making (Jackson, 2005; Stern, 2007).

In some areas of consumption, such as energy use, technical solutions can offer some mitigation, reducing the need for behaviour change. However, although there is potential to reduce the environmental impact of air travel without cutting the number of flights, technological efficiency gains, and the subsequent reduction in GHGs, are predicted to be negated by growing demand (Kahn Ribeiro et al., 2007). Instead, there must be 'behavioural changes towards less flying, a shift from long-haul to medium- and short-haul travel (i.e. reduction in distance), a modal shift from car to rail and coach, and less frequent travel ...' (Higham, Cohen, Peeters, & Gössling, 2013, p. 953).

Green consumers today find themselves in an unenviable position. They are caught between two competing travel ideals ("the flying dilemma" Higham et al., 2014) and policymakers have handed them the responsibility for arbitrating between them. This situation has the potential to create significant tensions if green consumers pursue normative vacation desires whilst holding anti-air travel ideals.

The aim of this paper is not to demonstrate the attitude-behaviour gap or to reveal the types of emotions such inconsistencies cause in the individual (Gregory-Smith et al., 2013) but to examine the narratives produced by those inconsistencies through the lens of a group of social psychology theories about inconsistency in order to understand why they exist (McDonagh & Prothero, 2014) and how they can affect changes in attitudes and/or behaviours. In the previous section we have provided an overview of the main aspects of cognitive dissonance theories that are most relevant to our analysis. We will now discuss the methods used to elicit narratives from green consumers about the differences between their attitudes and behaviours. We then go on to present the data from green consumers narrating their decisions about whether or not to fly. These are grouped by the approaches that they took to dealing with the reconciliation of their espoused green beliefs and the outcomes of their decisions. These data are analysed further using insights from the cognitive dissonance literature which help to explain the approaches taken. Building on these insights, we will assess the usefulness of cognitive dissonance theories for understanding the attitude-behaviour gap, which may ultimately have applicability to many aspects of sustainability.

Methods: eliciting rationales

The aim of eliciting and examining justifications for differences between attitudes and behaviours is best served by a social constructionist ontology that acknowledges the subject and context specific nature of any justifications offered and their socially constructed nature. As such the research does not understand the rationales offered as either 'true' or fixed but rather as narratives surfaced in that moment as part of, and in response to, the research process. The data reported in this paper are drawn from a series of qualitative, semi-structured interviews with 29 green consumers in the UK. Interviews were selected because one-to-one data collection was felt to be better suited to the discussion of potentially socially uncomfortable situations such as attitudes and behaviours being out of line. The aim of the interviews was to uncover a detailed understanding of the decisions of individual green consumers in relation to

air travel purchase or non-purchase. The respondents were self-selected in that they volunteered themselves for the study and identified themselves as green consumers (see below). There is no agreed definition of what is meant by green consumer and different literatures use overlapping terms (McDonald, Oates, Alevizou, Young, & Hwang, 2012). Our understanding of this term is someone who deliberately seeks to reduce the environmental and/or negative social impact of their own consumption. However, it is important to note that the respondents in this study are self-selected and have identified themselves as green consumers and that as a result this construct may hold a variety of meanings for the respondents. The fact that respondents were all self-selected green consumers is important for this study for two reasons. Firstly, in order to examine what happens in the attitude-behaviour gap, we need to locate consumers who think of themselves as holding green attitudes or intentions. Whether they actually carry out green behaviours or not is less important because whether or not they decide to actually fly their narratives are relevant to our research question (especially given the competing norms in this domain). If we selected individuals according to a social science rationale for discerning green consumers, based on their behaviours, we may also have found individuals who held green attitudes, but equally we may have found consumers who do not think of themselves as green and therefore do not display the attitude-behaviour gap, making them less interesting in the terms of our specific research question. The second reason is related to the suitability of the data surfaced for the application of cognitive dissonance concepts. Dissonance will only occur in individuals who attach a high moral importance to environmentally responsible behaviours and who perceive inconsistencies in their own attitudes and/or behaviours (Thøgersen, 2004). Therefore, a consumer who is classified by researchers as acting in a green or ethical manner but does not see themselves in this way will not necessarily experience cognitive dissonance. Other studies (e.g. Barr et al., 2010; Higham et al., 2013) that have looked at the UK population more generally have generated important insights into how different groups of consumers view flying, but have not necessarily located individuals who have changed their travel behaviours, raising the question of how and why change comes about.

In order to locate individuals who perceive themselves as green consumers (and are most likely to have practised or considered behaviour change), snowball sampling techniques were used to identify respondents (Noy, 2008). The initial group of respondents replied to adverts for volunteers to help with travel research that were placed in the newsletters of environmental groups, and posters displayed by retailers (such as wholefood co-ops) or green networks. The respondents that came forward were interviewed and were also asked to suggest other individuals to take part.

The interview followed a protocol developed by members of the research team for an earlier project (McDonald et al., 2012). The interviews were designed to elicit detailed descriptions of the decision-making processes surrounding recent vacation or business travel purchases. Respondents were interviewed individually and asked a series of questions including: how far in advance travel purchases were planned; how they were researched; who was involved; which information sources were used and trusted; which factors were taken into account in the final purchase, or decision not to purchase, specific products; and how these decisions compared to other, similar purchases in the past. By way of contrast and to help respondents articulate their travel purchases in detail, comparisons were sought between travel decision-making processes and equivalent processes for more general household shopping (e.g. food,

toiletries, cleaning products) and for other green consumption activities if these were part of the respondent's lifestyle (e.g. waste reduction, green networks, food production, energy conservation). The data pertaining to general shopping and other aspects of green consumption were intended to deepen our contextual understanding of the travel decision-making and are not presented in their own right in the analysis that follows. The main interview was followed by a short classification questionnaire which recorded the age group, gender, household composition and household income band for each respondent. Each interview took between 45 minutes and two and a half hours, with a typical interview lasting just over an hour. In line with our inductive approach, although they covered all of the areas described above, the interview was led by the respondent narratives where possible, with the interviewer probing for more detail when necessary or raising issues not naturally occurring in the conversation.

Each interview was recorded, transcribed and then underwent a process of inductive analysis. Interview data were systematically analysed, first individually and then in comparison with each other, in order to identify themes (Fielding & Thomas, 2001). Analysis was interspersed with data collection in order to inform data collection. Data collection ended once the analytical processes had established that no new insights had been surfaced from the later interviews, indicating theoretical saturation. Through this iterative and grounded approach, the findings were surfaced from the data. These initial cycles of analysis gave rise to the groups and subgroups of rationales presented in the next section. Although the data are presented there alongside elements of cognitive dissonance theory, it is important to note that the typology of different approaches to resolving inconsistencies was surfaced inductively from the data and existed before the relevance of the cognitive dissonance analysis became apparent to us. The groups of rationales have been set out in the next section, using cognitive dissonance theory as a means of structuring and examining the findings.

Findings and analysis

The data show that all of the green consumers that were interviewed were aware of the environmental issues associated with flying (Higham & Cohen, 2011). This is in contrast to earlier studies (Becken, 2004, 2007; Gössling & Peeters, 2007; Gössling et al., 2005; McDaniels, Axelrod, & Slovic, 1996; Shaw & Thomas, 2006; Stoll-Kleemann, O'Riordan, & Jaeger, 2001) where respondents showed low levels of awareness of the impact of air travel on climate change, although this may be changing (Higham & Cohen, 2011).

I know that travelling by train has roughly a fifth of the impact of travelling by plane. (Respondent 3)

...flying is actually contributing to the things that are damaging our world... (Respondent 8)

...generating 7.2 tonnes of carbon dioxide... (Respondent 19)

The focus here however is not on establishing awareness per se, but in raising the more difficult question of whether (and why) this awareness has an impact on consumption behaviours (in this case, travel). Establishing awareness is nonetheless

important as cognitive dissonance will not be experienced where a consumer does not perceive their attitudes, beliefs or actions to be inconsistent. This can happen when a consumer does not know about the environmental impact of a specific behaviour, or when they have faulty perceptions of their habits (Aitken et al., 1994). Thus before information about the link between climate change, GHGs and aviation was widely known, green consumers would have been able to choose air travel without experiencing cognitive dissonance.

Despite their self-identification as green consumers and their clear view that flying harms the environment, decisions around air travel were not straightforward for most of the individuals who were interviewed. Many of them stated their principles quite clearly, but then went on to describe an involved and problematic process when referring to specific (non) purchase decisions.

...it feels like a lot of sacrifice and suffering is involved [in not flying]...
(Respondent 8)

We don't fly a lot, partly because it is expensive, and partly because I do feel guilty doing it. (Respondent 6)

I don't think I could do it [fly to Venice or Rome]. Which actually, now I'm saying it, does seem like a bit of a shame! (Respondent 17)

...I still want to die with a clean conscience, and to my mind I can't really justify flying anymore. (Respondent 23)

Most of the interviewees reported experiencing the 'flyers' dilemma' (Higham et al., 2014). Clear tension existed between the expressed benefits of air travel and the personal awareness of the impact such behaviour has on climate change. The overwhelming consistency of this tension amongst respondents underlines the usefulness of adopting cognitive dissonance theory as an analytical framework. Having elicited narratives from our respondents about their decisions to fly, or not to fly, data analysis revealed that two overarching strategies had been employed to repair the dissonance experienced: *behaviour change* and specific *justifications for not changing behaviour*. Each of these overarching strategies included a family of sub-strategies which will now be considered in turn, using quotations from the data to illustrate them using typical responses from each surfaced theme, followed by an analytical commentary informed by looking at these data through a cognitive dissonance lens.

The development of specific justifications for not changing behaviour

Although respondents have a good understanding of the issues involved in air travel, and they consider them during travel decision-making, ultimately this deliberation does not lead to behaviour change for many (Veer & Shankar, 2011). A closer examination of the rationales related to not changing behaviour revealed three varieties of justification which were connected to: travel product; travel context; and personal identity.

Justifications related to travel product

Those who followed this strategy expressed their concern about the contribution of air travel to climate change. They may even have reported that flying was against their principles. However, for this group, the expressed ideal of not flying was compromised in favour of practical issues such as journey time (Hares et al., 2010; Randles & Mander, 2009) or journey cost. Some respondents reported different behaviours and attitudes to long- and short-haul¹ flights. Most of those who articulated concerns about short-haul flying described various alternatives (rail travel, boat travel, bus travel, combinations of these) that they had considered. In many cases, however, these alternatives had not been used. The reasons stated for not taking up other options included price, duration of journey, comfort and convenience; in contrast to Eckhardt, Belk & Devinney's (2010) findings that economic rationales were paramount, in our data journey duration was by far the most common reason cited:

From Aberdeen to London we knew even though normally I would take the bus or train down to ethical reasons but since I knew we would be travelling for three days and it was a big trip ... (Respondent 4)

People fly internally in this country, I don't, but say you needed to get from London to Scotland, getting the train would be so horrendous, and it's just hideous and expensive and takes so long. (Respondent 6)

But the reason we did it was because it was the cheapest option, which was crazy, the train was three times as much as the flight ... (Respondent 25)

Although the greenest travel options were often not selected, many green consumers described very explicit trade off processes and also expressed some guilt about their final choice, echoing findings from other product sectors (McDonald, Oates, Thyne, Alevizou, & McMorland, 2009).

It is interesting to note that although green criteria were at least discussed for short-haul air travel, they were often absent from descriptions of long-haul flight purchases.

The comparisons in the data of the different travel options on the basis of price, journey time, convenience and other product features can be seen as attempts by these green consumers to add 'consonant elements' to their decision to purchase air travel in order to outweigh the dissonance they feel in relation to their pro-environmental beliefs. So, for example, many people have used the shorter journey time offered by air travel as a way to settle their internal argument between beliefs and behaviours in favour of continued use of flights.

Justifications related to travel context

Within this subgroup, respondents' justifications centred on the context of the travel, with one prevalent theme being the desire to travel in order to be with, or to visit, family or friends (Moscardo, Pearce, Morrison, Green & O'Leary, 2000).

¹Most people defined short haul as domestic, but some extended this notion to flying within Europe.

... it's important for me to see my family that live on the other side of the world.
(Respondent 8)

Family can also have a more subtle influence on travel choices, such as visiting a country of a parent's origin, or replicating a trip that either their parents have taken, or that has previously been taken as a family. Sometimes linked to this notion is the perception that individuals ought to attend specific events (Buckley, 2011; Urry, 2002). These can be personal (such as weddings) or professional (such as conferences).

I have flown three times over four years to do international work on sustainability with the [developing nation] government, which I think is justified. (Respondent 3)

Here there are elements of two distinct strategies to reduce cognitive dissonance. In referring to their journey context in order to justify their continued use of air travel, these green consumers are seeking to reduce their cognitive dissonance by attributing their actions to external forces. In contrast to the institutional level externalities found by Eckhardt et al. (2010), the external forces cited here tended to be much closer to home. The notion that they 'have to' travel for work or family events are both ineffable and strongly held and, as such, will be hard for marketers to tackle.

However, there is also a suggestion that these green consumers are seeking to reduce the importance of their green ideals relative to the 'greater good' of spending time with family. In cognitive dissonance terms, this offers evidence of either reordering their values and/or adding consonant elements. Here there is evidence that green consumers can make use of a blend of strategies in order to reduce their cognitive dissonance.

Justifications related to personal identity

Another subgroup of rationales offered by the green consumers for putting aside their concerns over flying were linked to personal identity.

...there's this breadth of experience that comes from travelling, that you've seen this and you've done that, sometimes I feel like I'm under pressure to travel because that's what all the interesting people have done... I think that other people judge us by our travelling experiences... (Respondent 8)

These data suggest that as well as the benefits of the specific journey under consideration, respondents also consider the benefits to their social identity of the cumulative experiences of taking many flights over time. Here there is an explicit evaluation of the competing ideals of observing green tenets and gaining wisdom and perspective through extensive/long-haul travel. In Thøgersen's (2004) terms, the green consumers are assessing the relative moral importance of these ideals. For some, the decision plays out in line with their green beliefs, for others, the notion of being 'well-travelled' wins out. Stone and Cooper (2001) offer a useful insight here. They raise the distinction that dissonance may be aroused by a person comparing their current behaviour against their own standards (personal standards), or against the standards of society more generally (normative standards). The discussions about justifications related to travel experience in these data are a good example of this: the green consumer must decide whether to risk the

dissonance associated with transgressing against their own personal standard (which is termed idiographic dissonance) or instead suffer dissonance by going against social norms (which is termed nomothetic dissonance) which privilege the 'well-travelled' individual.

All three of these subgroups of rationales offer green consumers ways to repair the dissonance caused by the specific decisions that are out of line with their espoused ideals. They do not narrow the attitude-behaviour gap but they do provide justifications for it.

Behaviour change

In contrast to the individuals described above, some respondents did change their behaviour in line with their environmental beliefs making explicit attempts to close or to narrow the attitude-behaviour gap. Expressed changes were grouped into three categories: reducing or restricting flights; changes in other behaviours; and not flying at all.

Reducing or restricting flights

Many of the green consumers interviewed have responded to their worries over the environmental impact of flying by reducing the numbers of flights that they take:

We have stopped flying so much, we still do fly a bit, but it's going to be once every few years, not every year. (Respondent 21)

Others have cut down on a particular type of flight:

I'm anti short haul flights especially within my own country; I much prefer to take the train. (Respondent 7)

However, some interviewees perceived short-haul flights to be more acceptable than long-haul flights:

Over the past few years I've tried to reduce my carbon footprint in a couple of fairly major ways, and one of those ways was to try and stop flying, which I've been relatively successful at, apart from one short flight to France – but I haven't flown long-haul for two years and that was a conscious decision. (Respondent 27)

This shows that respondents seeking to reduce air travel consumption are using different criteria to decide which flights to cut out of their lifestyles and are privileging different things within their decision-making.

Changing behaviour over the number of flights taken or eliminating certain categories of flight can be seen as behaviour that is modified in line with green ideals and aimed at reducing, if not eliminating, the attitude-behaviour gap. Respondents seem to be suggesting this as a temporary position and imply that they are offering this as a description of themselves as working towards their goals. This could be read as a form of self-consistency repair so that they see themselves as people who 'fly less' or 'who do not fly unnecessarily' or even as people who 'are doing their best'. It may even be that they are adding these identity statements as consonant elements.

This raises the question of whether green consumers need to change their future behaviours in order to reduce their cognitive dissonance or just promise themselves that they will. With an everyday product, for example, organic vegetables, the opportunity for the green consumer to alter future behaviour may come during their next food shop, which may only be a few days or, at most, weeks since they resolved to change their behaviour. However, the decision of whether or not to fly for most people occurs less frequently, allowing time for the resolve to reduce or be forgotten due to the effects of distraction (Zanna & Aziza, 1976). If this is the case, then flying behaviour which is out of line with their green attitudes could be maintained without significant cognitive dissonance for some considerable time.

One of the traditional roles of cognitive dissonance theory within the marketing literature has been to reduce post-purchase dissonance (see Breker, 2009, for an overview) and is particularly relevant to larger purchases (Soutar & Sweeney, 2003), important and/or high involvement purchase decisions (Bawa & Kansal, 2008). Post-purchase dissonance occurs when a consumer purchases a product or service and then is either troubled by the negative aspects of the product or service that they have selected, or has regrets over the positive aspects of the product or service that they rejected. In the data presented here, there are examples of green consumers expressing both these kinds of dissonance in relation to their decisions to fly. In particular, there is evidence of what Breker (2009) characterises as ‘wisdom of purchase’ concerns where the (green) consumer worries about ‘the need for the purchase and the rightness of the choice’ (p. 440). In fact, this type of conflicted situation lends itself to interventions based on cognitive dissonance theory. Aronson and Mills’s (1959) effort justification theory would suggest that the harder it was to do something, the more importance someone will attach to it after the fact. Their high effort translates into cognitive evidence of the importance of undertaking that behaviour. So if someone has given up flying and that was a very difficult thing for them to do, personally and socially, the difficulty itself will help reinforce the choice that they have made.

Changing other behaviours

Rather than changing their flying behaviour, some of the green consumers interviewed had made other lifestyle changes to address their worries about air travel. One behaviour change that was discussed was carbon offsetting (where a consumer may ‘purchase’ trees in order to mitigate the emissions from their flight) (Becken, 2004; Boon, Schroten, & Kampman, 2007). Although a few respondents had looked into carbon offsetting, none of them had actually done it, and some were very cynical about the environmental effectiveness of this kind of approach.

Some green consumers tended to conceptualise their lifestyles as a whole and use other behaviours to trade off their flights in terms of reductions in other areas of their consumption.

...maybe if I'd been good all year... Father Christmas would let me have one flight! (Respondent 23)

I've earned it from all of the things that I have done, whether it be recycling, composting, wood burning, solar panels, cycling to work when I can and just saving all that carbon and thinking that I have lived a relatively low carbon

lifestyle for x amount of time, if I do the sums I work out that I can fly once every three years within my personal carbon allowance. (Respondent 27)

The respondents who used other green behaviours in order to reduce their cognitive dissonance about their decisions to fly are demonstrating the use of unrelated behaviour in order to repair their sense of themselves as good green consumers. This is in line with Steele's (Steele, 1988; Steele & Liu, 1983) self-affirmation theory. It is interesting to see these 'trade-offs' expressed so explicitly, suggesting a knowing and conscious rebalancing of the green self.

Not flying

For the majority of this sample, the 'doing without' option was not considered for long-haul flights (Higham & Cohen, 2011), nor was the possibility of changing travel destinations to accommodate not flying. In contrast to discussions about short-haul flights, it was very rare to find consumers who considered alternatives to long-haul flights. It may be the case that long-haul flights are simply accepted as non-green and, as a result, purchased without reference to green criteria (McDonald et al., 2012). One green consumer did consider the possibility of travelling by boat and train from the UK to Japan, but this was certainly an exception. The most readily available alternatives for long-haul flights, 'doing without' or changing destinations as a compromise, were not considered, even for very committed green consumers. However, some respondents had made the overall decision not to fly and had realised this as a strategy. There was evidence of an emerging respect for those who had experienced 'slow travel' or the 'staycation' and a shift in interpretation of the notion of being 'well-travelled' from implying 'someone that has been to lots of places' towards a meaning which is more in line with 'someone who has travelled socially and environmentally responsibly'. In this way their aspirations are shifting towards experiences which allow them to move slowly (and in some cases, repeatedly) through the landscape and connect with it directly, rather than visiting it or arriving at it. Rather than express their decisions not to fly as a compromise in their lifestyle, they have reframed it as a positive scenario which allows more meaningful travel and depicts flying as a less satisfactory alternative.

Get to know small areas by travelling 20 miles a day on holiday, by bike, we still travelled through geographically and culturally different areas. There are a whole load of things that you can do when you travel in a different way that you cannot do when you travel by air, or by car. (Respondent 3)

...people fly to the other side of the world but don't really learn anything culturally, they don't interact, they don't learn from other cultures... (Respondent 8)

I think that you can know a lot of places, or you can know some places in great details. I think there is a lot of satisfaction to be had, say, there's a half mile stretch of coast near here and we know all of the rocky coves, and every rock you could jump off, and every rock that you could fish from, and where the caves are and where the seals live...because you have to be somewhere and know it in great detail to have that sort of intimacy with it. In a sense for me that's as rich an experience as going to lots of far flung places that you'll only go to once. (Respondent 17)

The data gathered for this study show that even very committed green consumers still fly. People are 'locked-in' to flying (Randles & Mander, 2009), and it is still regarded as more 'normal' to fly than it is to avoid flying on environmental grounds (Barr & Prillwitz, 2012). A shift in social norms from a situation where 'well-travelled' equates to the distances and the number of places someone has visited (quantity of travel), to one where it means that someone has travelled without social and environmental impact (quality of travel) is the only real way significantly to reduce long-haul travel.

As discussed above, there are plenty of examples in these data of different kinds of behaviour change in response to the dissonance felt by green consumers and their flying behaviour. The link here is unequivocal behaviour change and corroborates the findings of earlier studies on the ability of cognitive dissonance to produce environmentally responsible behaviours (Aitken et al., 1994; Dickerson, Thibodeau, Aronson, & Miller, 1992; Kantola et al., 1984). However, what is different here is that these changes are not in response to researcher interventions, but rather express what Thøgersen (2004) describes as spontaneous realignment of behaviours.

Implications for changing consumption practices

Our analysis has demonstrated the different groups and subgroups of rationales offered by the green consumers, and in Table 1 we summarise ways to facilitate behaviour change via marketing and policy interventions.

Since one of the ways in which green consumers seek to reduce their dissonance is to add consonant elements related to features of the travel products themselves (significantly, journey time and cost), one way to address this option would be to tackle these features through, for example, investment in high-speed rail (Scottish Partnership Group, 2011) or subsidisation of rail fares. Although these strategies have the potential to change short-haul flight patterns, they do not deal with the issue of long-haul flights, unless coupled with some of the strategies discussed below related to social norms. Further, cognitive dissonance theory might suggest that simply providing good alternatives may simply foster a wide range of new justifications for not flying, rather than produce the hoped for large-scale modal shift to rail.

People feel genuine social pressures and desires to be present at specific events. Current communication technologies, such as video conferencing and Skype, are not yet felt by many to represent adequate substitutes. However, the development of more sophisticated technologies, as championed by the gaming industry, may hold the key to 'being there' (Urry, 2002) without flying.

Research has shown that witnessing a member of a social group acting in a way that is out of line with their strongly held (group) beliefs can cause vicarious cognitive dissonance in other group members (Cooper & Hogg, 2007). This means that marketing communications could use this technique to prompt attitude and/or behaviour change in a wider audience. In order to be successful in creating vicarious cognitive dissonance in an individual, the person shown acting out of line with their values would need to have membership of the same important social groups as them (Cooper, 2007). That person also needs to be a typical, and not an extreme or fringe, group member (Hogg, 2001).

Other studies show that cognitive dissonance can be created by highlighting the inconsistencies between an individual's beliefs and actions. The techniques employed

Table 1 A summary of strategies taken by green consumers to reduce their cognitive dissonance and suggested marketing/policy interventions.

Consumer strategy	Cognitive dissonance strategy	Marketing/policy strategies for change
No Behaviour change	Justifications related to travel product	Vicarious hypocrisy
	Justifications related to travel context	
	Justifications related to personal identity	
Behaviour change	Reducing or restricting flights	Make personal standards most accessible
	Changing other behaviours	Endorsing behaviour change
	Not flying	Endorsing behaviour change

Changing social norms

Vicarious hypocrisy

Add consonant elements

Cite external forces (and to a lesser extent, reordering of values)

Trade-off between idiographic and nomothetic dissonance

Change selected future behaviours (self-consistency)

Endorsing behaviour change
Making travel alternatives/
alternatives to travel more
viableInformation about high impact of
flights
Carbon Accounting

Change future behaviours (self-consistency)

Endorsing behaviour change

are termed hypocrisy procedures (Stone, Wiegand, Cooper, & Aronson, 1997). Hypocrisy procedures have been used to change water use (Dickerson et al., 1992), reduce racial prejudice (Hing, Li, & Zanna, 2002), get people to take part in an anti-littering campaign (Fried & Aronson, 1995) and comply with anti-speeding campaigns (Fointiat, 2004).

The green consumer was depicted in our data as held in tension between the risk of idiographic cognitive dissonance if they choose to fly, transgressing against their own ideals, and the risk of nomothetic dissonance if they choose not to fly and are judged as 'odd' against wider social norms. Cooper (2007) suggests that the individual will select those standards that are most salient in the moment of decision and so the task for marketers is to find ways of making consumers' personal standards more salient in the minds of green consumers as they decide whether or not to fly, increasing the effects of their idiographic dissonance until it outweighs the social discomfort (nomothetic dissonance) of not flying.

Although it would not be financially or practically feasible to use hypocrisy techniques directly with every green consumer (or every consumer), Cooper (2007) suggests that marketing communications could be designed that evoke vicarious hypocrisy in large audiences by using a typical group member to advocate the strongly held group ideal (flying harms the environment and therefore one should not fly) but admit to previously acting against that ideal (by taking flights), even when they knew what the consequences for the environment were.

Guidance is needed from social marketers and NGOs on how to calculate carbon emissions in a meaningful way (Boon et al., 2007) and how to evaluate different approaches. If people wish to trade other reductions in GHG emissions off against a flight, then it is important that they are offsetting the actual environmental impact of their behaviour rather than merely their consciences.

There is an opportunity here for social marketers to develop campaigns that emphasise the wisdom and satisfaction of 'staycations' and slow travel (see Dickinson and Lumsdon 2010 for an overview) and help endorse the behaviour changes of those who have elected to take them, increasing their propensity for 'repeat purchase'. The same marketing communications could also help increase the dissonance of green consumers who fly, prompting a re-examination of their flight purchases and perhaps mitigating the effects of distraction. Cherrier et al. (2012, p. 414) call marketers the 'builders of norms', and there is also an important role for social marketers in strengthening the social norms around slow travel in order to reduce nomothetic dissonance. It is much quicker to produce idiographic dissonance than nomothetic dissonance because that means changing the standards across society. But for the large-scale change required to tackle climate change, nomothetic dissonance must be the goal. Here will be required the sort of long-term, multiple message, multiple target, multiple channel approaches combined with changes in policy and law used to turn smoking, for example, from something ubiquitous and attractive to something socially unacceptable. Like the change in social norms surrounding smoking (Gray, Amos, & Currie, 1997), this could take decades of integrated efforts to achieve.

In summary, these data have shown (and a closer reading of the cognitive dissonance literature would predict) that people are more likely to change their cognitions about their behaviours rather than change the behaviours themselves. Literature shows that this problem is not confined to air travel behaviours. Habits pertaining to other travel modes are also hard to change (Nilsson & Küller, 2000;

Tait, Laing, & Gray, 2014) raising questions about the habitual nature of travel decisions and the social identity associated with specific modes of transport. However, ideas around raising hypocrisy are worth pursuing because they may provide the key to lasting and meaningful change (Aronson, 1992; Dickerson et al., 1992; Fointiat, 2004; Hing et al., 2002) in a way that information providing alone has not done (Hopper & Nielsen, 1991). Nevertheless, education and information campaigns have a role to play in raising awareness and therefore can affect attitude formation. Without green attitudes there will be no cognitive dissonance of any kind produced and no potential for behaviour change. Perhaps what is needed is a two-stage strategy: information/education campaigns aimed at changing attitudes, followed by marketing versions of the hypocrisy procedures that make use of vicarious cognitive dissonance, aimed at lasting behaviour change.

Discussion and conclusions: why green consumers continue to fly

These data show that many of the green consumers interviewed had experienced cognitive dissonance, sometimes idiographic, sometimes nomothetic and sometimes both. Further, they have embraced a wide range of strategies in order to reduce this dissonance, sometimes blending them together in sophisticated ways. However, the least common of these strategies is to stop flying (Barr et al., 2010); Böhler et al., 2006; Hares et al., 2010), and this is in line with cognitive dissonance theory.

It is important to remember that cognitive dissonance is a psychology theory, aimed at a cognitive explanation. In other words, it is not dissonance between attitudes and behaviour that is being considered, as is sometimes implied in the marketing literature, but rather dissonance between cognitions about attitudes and cognitions about behaviour. Since it is harder to change cognitions about one's behaviour, cognitive dissonance theory would predict that people will be more likely to seek to reduce cognitive dissonance through changing their ideas about their attitudes. Thus it follows that simply increasing cognitive dissonance will be more likely to cause an increase in the types and number of justifications offered by individuals for their behaviour than widespread behaviour change. This is what the data show. Set against the ease, cost and social importance of flying, it is easy to see why green consumers continue to fly.

Underlying many of the strategies for reducing dissonance that have been discussed here is a deep-seated social approbation of flying, both in terms of the attributes of the flight itself, but also of the social meanings of flying. Green consumers face competing social norms and mainly (but not always) find the nomothetic dissonance of being out of line with widely held social norms around flying more difficult to bear than the idiographic dissonance of being out of line with their own green ideals. This is perhaps exacerbated by the low frequency of flight purchase decisions, allowing distraction to play a role in eroding promises made to themselves following previous flight purchases. And so they fly.

Comparing cognitive dissonance theory to neutralization theory in terms of usefulness for examining consumer rationales, we find that cognitive dissonance theory is potentially more applicable to an issue such as flying. For neutralization theory to be applied, there needs to be a transgression against a social norm (Sykes & Matza, 1957). Whilst there are individuals within the general population for whom a decision to fly would transgress a strongly held norm (demonstrated by

the data presented here), we would argue that these norms are idiographic rather than nomothetic and limited to a few individuals. In other words, neutralization theory may be useful to examine those individuals who have strongly held (idiographic) beliefs about sustainability, but transgress those norms (or in neutralization terms, display deviant behaviour against the backdrop of these norms), by continuing to fly. However, neutralization theory would not offer insight into why the majority of consumers continue to fly because they are acting in line with a more widely held (nomothetic) social norm that flying is increasingly understood as an expected part of everyday life. In order for neutralization theory to be useful here, the 'deviance' would need to be expressed in the opposite terms: why are green consumers not flying when this is a socially accepted part of our professional and personal lives. We argue that this alone would make cognitive dissonance theory conceptually more accessible as an approach here. However, semantics and research logic aside, cognitive dissonance theory has two further potential advantages to offer researchers interested in rationales offered around the attitude-behaviour gap. Firstly, dissonance, with its emphasis on cognition, can be observed and discussed with individuals even where no actual behaviour change (or deviance) is present. Secondly, as can be seen by our flying example, there can be situations where there are competing norms (flying is normal, flying harms the environment), rather than a single socially accepted position (stealing is wrong). In these cases, transgression or deviance are much harder to define and operationalise as concepts. In fact, acceptance of one norm in this case means transgression against the other. Whilst this is a problem for neutralization theory, cognitive dissonance theory is, as we have demonstrated, able to deal with this kind of more nuanced situation where a consideration of a mono-dimensional notion of 'right or wrong' is not present. Thus it presents another interesting angle to pursue in the understanding of exactly what is happening between espoused attitudes and actual behaviours. One conclusion that has come clearly out of our attempt to compare these different theoretical approaches to examining consumer rationales is that there is no meaningful interaction between the debates surrounding these theories and we would recommend that writers in both literatures examine the insights of the other in order to better understand the contributions and limitations of both approaches.

In comparing the findings of this study with those of other studies of rationales (e.g. Eckhardt et al., 2010), we find some similarities and differences with our data, as noted above. This raises the question of whether the kinds of rationalisations are different because other studies have examined rationales in relation to consumer goods (e.g. soap, handbags) rather than travel products, or whether the different outcomes are explained by the differences in the research designs. This underlines the importance of replicating this research design in other product categories.

The research presented here has a number of limitations. As it is qualitative and exploratory in nature, it has only considered the rationales offered by 29 individuals, all of them living in the UK and all of them focused on a single product: flights. A much wider study, either a large, cross-cultural qualitative design such as that employed by Devinney et al. (2010) or a quantitative, survey-based study, would determine whether these groups and subgroups of rationales were appropriate outside of the UK. Further, this study, in using cognitive dissonance as a qualitative, analytical lens, did not seek to measure the amount of cognitive dissonance experienced, but was only able to detect its presence.

Although the study reported here is an exploratory one, and one set within the context of travel behaviours, the findings raise interesting questions for marketers about the management of sustainability marketing more broadly. Further qualitative studies will be required in order to find out the nature and extent of cognitive dissonance with regard to other sustainable behaviours in order to extend the insights surfaced here to other (un)sustainable behaviours. On the surface it would seem that these ideas would have much wider applicability. If marketers are serious about changing consumers' unsustainable behaviours, they will have to tackle the social norms associated with them. Concepts drawn from the social psychology literature on cognitive dissonance have been shown to have applicability for explaining current (un)sustainable behaviours and in the hands of marketers could form the basis of long-term, coordinated marketing strategies for changing attitudes and even behaviours.

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