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Explaining a negative motivation to travel

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Escape theory: Explaining a negative motivation to travel

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ABSTRACT

In this paper we assume that people could travel in some cases to escape from something, such as their family, colleagues, or residential or work area. The concept of escaping as a driver to travel complements both the mainstream assumption that travel is a derived demand and the idea that people sometimes travel for the fun of it (and thus derive a *positive* utility from travelling), and has its origin in sociological literature. We categorize forms of escaping, and link travel to escape (TtE) to other concepts such as travel time budgets. Next we propose a first conceptual model relating factors explaining the motivation for escaping from something, or being able to escape from something, and the subsequent travel behaviour. We then formalize the travel behaviour model with general functions incorporating the role of travel to escape. Next we present the results of a first, small, empirical study showing that some people recognize the concept of escaping. In addition, we discuss the implications of travel motivated by escaping from something, one implication being that there will be more travel than if the concept does not apply, and another implication being the potentially positive value of a *low* level of accessibility, rather than the *high* level customarily assumed to be more desirable. We finally discuss implications for future research, and end with a discussion and final conclusion.

1. Introduction

Why do people travel? In travel behaviour research, by far the most common assumption is that travel is a derived demand (Mokhtarian and Salomon, 2001): people positively value the utility of conducting activities at other places. Travel itself is valued negatively (the assumption goes) because it takes time, costs money and has other inconveniences like (perceived) risks and discomfort. Mainstream transport models, more specifically four-step models and land-use/transport interaction (LUTI) models, reflect this utility theory-based assumption (Ortúzar and Willumsen, 2011). In addition there are some other theories and assumptions that help us to understand why people travel (see Section 2). This paper adds to these theoretical explanations by proposing what we call escape theory: some people, and under some conditions, value travel at least partly because they want to escape from 'something'. In other words, they value being (far) away in time and/or distance from their daily milieu, mainly home or work. We do not claim to be the first to suggest all ingredients of the concept of travel to escape (TtE) – in several cases we are not (see Section 3) – but we bring the ingredients together.

We limit ourselves to travel-related escaping, ignoring other forms of escaping, such as via reading (e.g. Rothbauer and Dalmer, 2018), Virtual Reality or the use of alcohol or drugs. Escaping can be also urgently needed in case of hurricanes, floods, volcanic

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eruptions, fires, wars and other risky events. There is a rapidly evolving body of literature on these forms of travel, and the motivations for such *evacuation* travel are not within the scope of this paper. In addition we limit ourselves to temporary escapes, excluding more or less permanent escapes such as moving to another residential location to escape the current place, because our focus is on the direct implications of escaping for travel behaviour.

In the remainder of this paper, Section 2 introduces mainstream theories explaining why people travel. Section 3 discusses escape theory. Section 4 presents a conceptual model for that theory, followed by Section 5 presenting at a general level mathematical models of the travel behaviour associated with escaping. Next Section 6 shows the findings of a first explorative empirical study. Section 7 presents some ideas for future research, and Section 8 concludes the paper.

2. Current travel behaviour theories

Most trips result from the fact that people want or need to carry out different activities at different places – examples being working, shopping, visiting family and friends, and reaching recreational facilities or medical services. So, they derive a positive utility from those activities, but need to travel which takes time and costs money, causing disutility. For a given choice context (such as the choice of mode, or destination), how is the selection among alternatives made? Utility theory (more specifically Random Utility Maximization (RUM) theory, McFadden, 1973) is the most dominant theory used in the travel behaviour literature and in modelling transport (Ortúzar and Willumsen, 2011). There are good reasons for its strong position, because RUM makes the natural assumption that, among feasible alternatives for a given choice, decision-makers select the one that has the highest net utility for them. But there are a few alternatives to RUM, such as regret theory: people do not necessarily maximize utility but could minimize the expected regret of their decision (Chorus, 2010). Prospect theory (Kahneman and Tversky, 1979) also challenges utility theory in some respects, a dominant one being that people value losses higher than equally large gains, and often compare choice options with a reference alternative or level.

But not all travel is derived: some people in some circumstances value travel in itself, leading to undirected travel, or to trips that at first seem to be made because of the positive utility of the activity, but on a closer look are also made because of the positive utility of the trip (Mokhtarian and Salomon, 2001). Beyond the positive utilities of the destination activity and the travel activity themselves, Mokhtarian and Salomon (2001) suggest that positive utility can also accrue from activities conducted while traveling. At a minimum the utility added by such activities could reduce the disutility of a travel choice made predominantly for other reasons; less often, that utility could be sufficient to tip the scales toward the choice of a longer or more expensive trip.

A very influential theory from the area of psychology is the Theory of Planned Behaviour (TPB) (Ajzen, 1991). TPB assumes that behaviour depends on intentions of people and on their perceived behavioural control (PBC). PBC, attitudes and social norms influence the intentions of people. The theory is very general and leaves unspecified what precisely the intentions of people could be. A very important category of intentions is that people want to go to other places to carry out activities. But the concept of the positive utility of travel can also be understood by the TPB: people might have the intention to travel because of the positive utility of travelling.

Time Geography (Hägerstrand, 1970) is the final theory we discuss here. It is based on the assumption that people make choices with respect to activities, activity locations, and travel, within three types of constraints: capability constraints (constraints imposed by biological, mental and instrumental limitations), coupling constraints (constraints imposed because of scheduling activities together with other people at specific times and often also at specific places), and authority constraints (constraints imposed by authorities, such as with respect to opening hours of kindergartens or shops).

3. Escape theory

3.1. Key concepts

In this paper we add to the explanations for reasons why people travel, assuming that at least some people in some cases want to escape from something. In the literature the 'positive' explanations dominate: people travel because they like to be at different places to carry out activities, or they like travel for its own sake. Escape theory fundamentally diverges from these positive explanations, assuming a 'negative' driver: people sometimes travel at least partly because they want to be away *from* a given place, and people might prefer *not* to be able to quickly travel to destinations (mainly: travel back to daily life), nor to be easily accessible by others. This desire to avoid or escape from a given place can be due to a number of possible factors associated with that place, such as the people who are there (family, colleagues, …), the activities conducted there (work, domestic chores, …), or personal/social/institutional situations there (a heavy workload, a constraining local policy, …). As examples of the latter, people might want to escape from locations where they are obliged to wear masks to reduce the spread of a virus (like COVID-19), or a place with leash laws (implying that people are only allowed to walk a leashed dog), prompting people to escape that place and walk their dog at places without such laws. These examples all have in common that the driver is not so much that people want to be at a particular place, but that they do *not* want to be at some place(s). Of course the *escape travel* itself may then have a positive utility, but the driver is negative.

We elaborate on a few distinct scenarios for TtE. As mentioned above, TtE can be motivated by (scenario A) not wanting to be at a particular place in itself, and in addition (scenario B) also by the desire not to be able to easily travel back to the daily milieu or to be accessible to others. Scenario A can be split into two subcategories: (A1) the time spent travelling is the way in which people escape (as when one goes for a bicycle ride 'just to get out of the house'), and (A2) travelling is a means to go to another place where one escapes. That place could be near the location from which one wants to escape. In scenario A2 the dominant objective is simply to be away from a place, whether near or far, and thus travel is likely to be a disutility as would normally be expected. Accordingly, theoretically it is

imaginable that teleportation (see Russell and Mokhtarian, 2015) would do the job: if it were possible to instantaneously arrive at the desired destination, without the disutility of travel itself, teleportation could be the preferred 'mode' of escape from a place. In scenario B, by contrast, there is an incentive for the escape to involve *long(er)* rather than shorter travel distances and/or times. Further, in scenario B a person, once having arrived at the escape destination, has the wish of what Ferreira et al. (2017) might term 'escape-motivated immotility'. Travelling is a means to that end.

Table 1 summarizes these options and the implications for the valuation of travel time.

Escape theory assumes that people in scenario A1 might positively value travel time because travelling is a form of escaping in itself. Note that in scenario A1 travel costs will still be evaluated negatively. As long as the total Generalized Transport Cost (GTC: time, money, other negative aspects) is outweighed by the value of escaping (and other positive aspects of the trip), there is a net positive utility of travelling. If that net positive utility is higher than the net positive utility of competing activities, people will travel to escape and the trip is the form of escaping. In scenario A2 travel time will generally be evaluated negatively (as applies to most trips in general), although it is still possible that people value travel positively. This could occur first of all because people sometimes value travelling positively (travel for the fun of it, also called the intrinsic value of travelling – see Section 2), even though the motivation to travel is to go to another location. Secondly, although the motivation is to go to another place, the trip can also be part of the escape. Of course, a given excursion could combine both scenarios A1 and A2, as when one takes a bike ride to combat the 'cabin fever' of being at home all day, but stops for ice cream along the way: in such a case the allocation of 'motivation weights' between the two scenarios will be idiosyncratic, and quite likely difficult to parse.

In scenario B people may positively value longer travel times and/or longer travel distances. A longer travel time can make it very difficult or even (temporarily) impossible to travel back, and can make it difficult for others to travel to the person escaping. It could also be that a longer distance, in addition to a longer travel time, is appreciated because it might give an additional feeling of being away, regardless of the travel time, and thus a stronger feeling of a psychological barrier.

The discussion so far is at the conceptual level, and aims to disentangle forms of escaping and the (dis)utility of travel. In practice the distinctions made with respect to the motivation to travel and the valuation of the trip are not as strict as suggested above. People can combine positive and negative motivations to travel, such as in case of a holiday trip: people might prefer to not be in their daily environment as well as enjoy the positive experiences as a tourist at the touristic destination. And people may value travel time positively because they do not want to be accessible nor easily be able to travel back, but still not enjoy the trip itself. So, on the other hand a higher travel time will be evaluated positively because of the decrease in accessibility, but the travel time of the trip can still be evaluated negatively as long as people do prefer to do something else over travelling. These reflections imply that it is easier to *conceptually* distinguish between motivations to travel and the valuation of travel time, than it is to do so *empirically*: people may combine several motivations in one choice. In other words, there is a gradual degree to which people travel to escape, ranging from not at all (0) to fully (1). This implies a major challenge for empirical studies in this area – see below.

To generalize, and combining the reflections above with the two dominant reasons for people to travel as discussed in Section 2, people can travel departing from a positive motivation, either (1) to reach a destination at which they want to be or (2) for the intrinsic utility of travelling (joy of travel, health), or departing from a negative motivation: (3) to escape. In all three cases they might value travel time negatively (cost, time, effort) or positively (intrinsic motivation, escape). It is even possible that the first part of a trip is evaluated positively but after a certain threshold the additional travel could be evaluated negatively. One can think of a bike or walking trip: people may enjoy it up to a certain level (time, distance), after which additional walking or cycling time will be evaluated negatively.

The concept of escaping can apply to different time scales. Over the period of one or a few hours people might prefer to be away from the current activity. One can think of a break to get a cup of coffee, or smoke a cigarette, to escape for a short episode of time from work. Over the period of one day it could be that people do not want to be at home or at work for too long. They could, for example, take a walk at lunchtime, not because of the positive utility of the walk as such, but because of the desire to escape. Over a sequence of several days, say a week, it can be that people do not want to telework all days, even if they could, because they prefer to be *away from home* one or a few days per week. Note that this is not the same as a preference to meet colleagues for one or a few days per week; such a preference and the related travel can easily be understood by the theories and concepts introduced above, notably by utility theory. It can also be that people want to work from home one or a few days per week, to *escape from work* (regardless of the benefit of not having to commute), and then the concept of escaping explains why people do *not* travel when it would normally be expected. Over a longer period of time it could be that people want to be away from their regular work, sabbaticals of academics, maybe every five to ten years, being a nice example. Another example is that people might want to escape family life and take a one-week vacation with friends.

Several forms of travel behaviour are habitual (Verplanken et al., 1997), and it seems likely that travel to escape, especially at shorter time frames, can be habitual, such as regularly taking a walk at lunchtime, or smoking a cigarette with colleagues every day at a

Table 1
Motivations to travel to escape.

Scenario	Implications for travel time valuation
A. Not being at a particular place	
A1: Travel is the escape	Travel time is valued positively
A2: Travel is a means to go to another place	Travel time is probably valued negatively
B. Not being at a particular place + low level of accessibility to and from that place	Travel time (and maybe also distance) is valued positively because of the value of a low level of accessibility

fixed time.

3.2. Earlier work on escaping

We do not aim to provide a mature literature review of the literature on escaping. Rather, we briefly give an overview of some of the literature in the areas of travel behaviour and sociology that relates to the concept of TtE.

First of all, the travel behaviour literature provides a few indications of TtE. The role of the commute as a buffer (Redmond and Mokhtarian, 2001) or transitional liminal zone (Jachimowicz et al., 2021) between home and work is an example of a very short-term (and in many cases habitual) escape. Secondly, Ory and Mokhtarian (2005: 99) explicitly refer to the idea that people may want to escape: 'It is common to use travel to, for example, temporarily escape obligations, routines, and/or tensions at home or work.' Salomon (1985) hypothesises that travel can be motivated by boredom – an example of a 'situation' from which one might wish to escape.[1]

In the sociological literature the idea of TtE has been discussed for decades. Dann (1977: 186) comments that tourism can be explained by pull factors (the attraction of the destination), but also by push factors: '"Push" factors (…) refer to the tourist as subject and deal with those factors predisposing him to travel (e.g. escape …)'. The idea of tourism as a means to escape from daily life is mentioned in many other papers (e.g. Pearce and Lee, 2015). Some papers refer to particular forms of escaping and tourism. For example, Pritchard et al. (2000) found that tourism of gays and lesbians is sometimes motivated by the desire to escape from heterosexism, and that they therefore chose specifically gay destinations. Blichfeldt and Nicolaisen (2011) found that disabled people sometimes go on vacation to escape from their role as 'objects of care'. Laing and Crouch (2009) conclude that frontier travellers like to escape from daily life and like loneliness and isolation. This latter form of escaping supports the idea that people like to be inaccessible. Others explain that escaping from daily life is not only a motivation for tourism, but also for leisure travel more generally (Larsen, 2008). The literature that we found all discusses TtE in the context of tourism and leisure only, and the examples of not only tourism but also of leisure travel generally mention longer episodes, such as (half a) day trips or longer. But note that escaping can also apply to short episodes (see above).

Finally, we found an example in the sports literature. Rundio et al. (2020) studied motivations for very long-distance bike trips, specifically a bike ride of over 4000 miles from Austin, Texas to Anchorage, Alaska, departing from a social constructivist approach. Escaping from daily life was found to be a motivation for some participants.

3.3. Related concepts

The concept of accessibility, briefly defined as options to carry out activities at different places (Geurs and van Wee, 2004) is a very powerful concept for understanding escaping. Normally the implicit assumption is that people prefer higher levels of accessibility over lower levels, but according to escape theory in some cases the opposite can apply: people may value *low* accessibility between the place *from* which they want to escape and the place(s) *to* which they want to escape.

The concept of variety seeking (e.g. Chowdhury et al., 2020) could be related to escape theory, as far as it is not about the positive utility of the new destination itself, but the escape from the origin.

The concept of escaping can also be related to the concept of the option value, expressing that people value a good or service not because of actual use, but because of the option to be able to use it in the future (Geurs et al., 2006; Bondemark et al., 2021). Escape theory first explains that people, during their escape, may positively value the lack of options for travelling back, or value being difficult to access. Secondly, they might value the option to escape whenever they wish to, regardless of how often they actually exercise the option.

The concept of escaping is also recognized in the literature on the compensation hypothesis: people with a lack of opportunities to recreate in or nearby their residential area may want to escape from that area, leading to tourism or leisure trips (see Czepkiewicz et al. 2020 for an overview). So the compensation hypothesis can be explained both in terms of the positive utility of recreating at some place, but also by the positive utility of escaping from their residential area, even without recreation activities.

The idea that people sometimes want to escape from something can in theory easily be expressed in terms of utility: people derive a positive utility from escaping (see below). It can also be interpreted in terms of the TPB: the wish to escape is an intention of a person.

3.4. Anecdotal examples

Above we already provide examples of specific forms of escaping related to tourism. We here present a few additional anecdotal examples to illustrate the concept of TtE. We have heard from people who like fishing that part of the fun is to be away (generally: from home). We have also heard of people who, when they stopped smoking, missed the (socially assumed) legitimate work break (escape from the specific work place, for example in their office) associated with being required to smoke outdoors. Certainly many, if not most, adolescents want to escape from their parent(s)' house and supervision. Next, we are aware of people who ride a motorcycle not

[1] It is true that boredom (ennui) could be intrinsic to the individual, in which case escaping from a place will not be very effective for very long. However, boredom often has an extrinsic component, which is presumably place-based (represented by phrases such as 'cabin fever', 'island fever', 'tired of staring at these four walls', 'I'm climbing the walls here', and 'there's nothing to do in this one-horse town') – including boredom associated with the people or (lack of) activities at a place – and therefore addressable by changing one's location.

only to visit places or even because they like to ride a motorbike, but who sometimes use it to escape daily life. We even know a few people who own a motorbike but hardly use it anymore. They do not sell their motorbike because of the option value: they like the idea of being able to take a ride, regardless of the actual use of their bike, and the appeal of that idea could be related to the desire to escape from daily life. Another example could be people who choose the destination for their holiday trip or their sabbatical to be far away from home, to more completely escape daily life and reduce the risk of having to make an intermediate return trip. We are aware of academics choosing a distant university for a sabbatical leave, so as to be able to decline invitations for academic events such as PhD defenses at their home university.

4. Conceptual model

Fig. 1 presents a first conceptual model for factors explaining the utility of the various scenarios of escaping from something (or being able to escape from something), and the resulting travel behaviour.

Fig. 1 portrays the idea that the utility of each of the various scenarios for escaping depends on personal characteristics (often labelled as socio-economic and demographic variables, such as age, gender, education level, …), attitudes and personal constraints such as those addressed in Time Geography, and the social and environmental context in which people live or often stay (household, other relatives, friends, work/colleagues, residential area, work area). That context relates to persons but also to institutions such as constraints imposed by authorities (see 'Time Geography', Section 2).

There may also be interaction effects involving those factors, not shown for simplicity. Earlier experiences with escaping (positive or negative) could also play a role in the utility of the various escape scenarios, and so may the time since the last escape: it seems plausible that the desire to escape increases the longer it has been since earlier escapes, or the longer one is in a specific situation from which one wants to escape for the first time. The outcome of the first stage is the utility of escaping (or being able to escape) under each of the proposed scenarios, together with the utility of not escaping, rather than a behaviour per se. As developed further in Section 7, these utilities could remain as continuous variables, or could be used in a discrete choice model of escape intention, whose outcome is either a specific preferred escape scenario, or the preference not to escape.

The second stage of the decision process is a travel-related behaviour. The outcome can be a particular escape choice (e.g. a specific destination or mode), but also the choice to not escape because the costs exceed the benefits. Assuming the benefits exceed the costs, in this stage, we suggest that the particular scenario (or combination of scenarios) desired by the individual influences the effects of each explanatory variable in a model of the travel behaviour(s) of interest. For example, as indicated in Table 1, travel time may have a negative coefficient for scenario A2, but positive (or less negative) for the other two scenarios. A variety of other factors may also be relevant, such as other GTC components. For example, in scenarios A1 and B travel time may be valued positively (for escape reasons), but other GTC components (such as monetary costs, perceived safety, stress and effort) may have negative effects. Other relevant factors include the TPB concept of a lack of perceived behavioural control (not being able to escape), altruistic motivations to not escape (the positive utility for *others* of the individual not escaping), spatial factors, costs of staying at other places (beyond the costs of travelling to/from them), etc. Finally, although again not shown for simplicity, the 'other factors' could also include all the same variables on the left side of the figure.

Note that this conceptual model makes explicit something that is often implicit in conventional travel behaviour models.

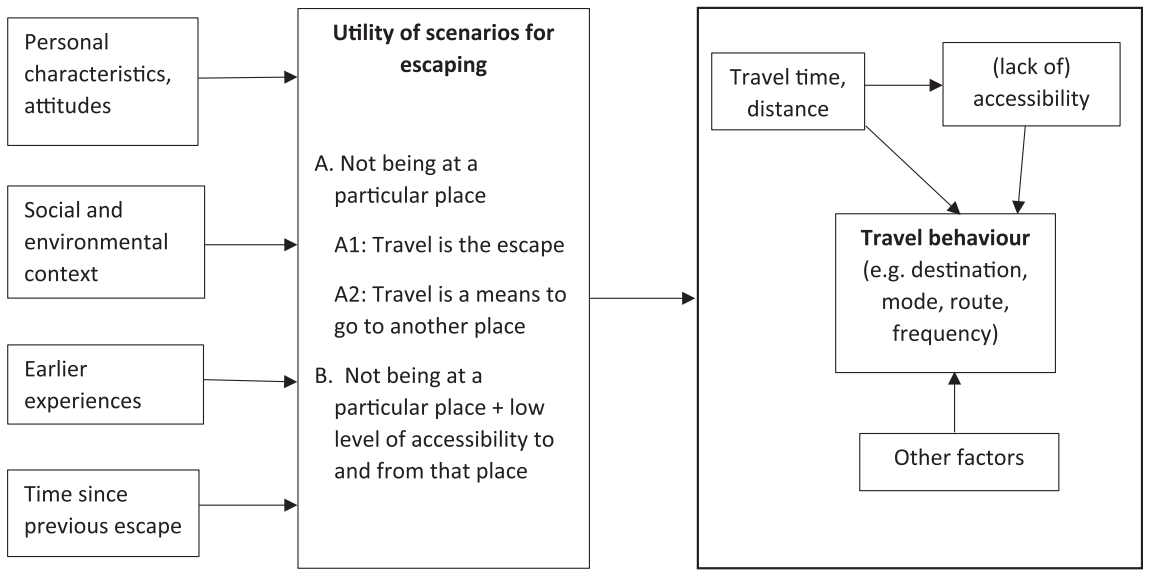

Fig. 1. Conceptual model for factors explaining the positive appreciation of escaping from something, or being able to escape from something, and travel behaviour.

Specifically, we make a separate step out of the formation of the desire to escape, including the nature/motivations of that desire, and distinguish it from the choice/behaviour accomplished to realize that desire. However, although conventional approaches often do not separately model desire formation, (1) a hint of the concept appears in the guise of trip purpose (which is arguably the reason or desire for making the trip), by which numerous travel behaviour models are stratified; (2) some studies – notably those taking a more psychological perspective – *have* paid more attention to at least measuring, if not modeling, the goals/desires that motivate behaviour; and (3) at least one study (Mokhtarian et al., 2015) provides an extended argument for the importance of improving our understanding of the motivations for traveling, and offers some practical guidance for doing so. In the present instance, we further elaborate on ways to operationalize the first stage of this process in Section 5.

Some of the related concepts presented in Section 3 are included in or linked to in our conceptual model, and others are not. Accessibility is in our conceptual model; a preference for variety seeking is a personal characteristic. The concept of utility is a very general concept used in travel behaviour modelling, and can also be used in applications of our conceptual model. The option value can be used to (monetarily) evaluate the value people attach to options to escape, but this value is not included in our conceptual model. Finally, the compensation hypothesis expresses the impact of some of the context factors: if people live in specific spatial contexts, they might want to escape from that area.

5. Ideas for operationalizing the conceptual model mathematically

This section proposes a quite general mathematical expression of a model for the key dependent variable of Fig. 1, namely the travel behaviour outcome associated with escaping. We deliberately keep the mathematics at a general level, leaving room for more specific interpretations and related equations.

As a simplified beginning, we could imagine individuals placing themselves into only one of the scenarios A1, A2, and B, representing their preferred scenario for escaping, *or* a fourth scenario, that of preferring not to escape. The utility functions associated with each scenario can be scenario dependent as well as context dependent. For example, the utility for scenario A1 can be a function of one's liking for travel 'in the abstract' as well as by certain modes or under certain circumstances, while the utility for scenario B could be a function of fatigue associated with too-frequent interactions with work colleagues or family members. The utility for scenario A2 could be a function of one's affinity for certain kinds of destinations. Relative to the utility for *not* escaping, all three of these utilities will be a function of the desire not to be at the place from which one wants to escape.

The previous paragraph pertains to the left and middle portions of Fig. 1; we turn now to the travel behaviour outcome process shown on the right side of the figure. As mentioned in Section 4, the preferred scenario could influence the effects (i.e. the coefficients) of the explanatory variables for the second-stage model of travel behaviour. For example, the preferred scenarios could deterministically segment the sample for the second-stage model. Alternatively, the full system could be structured as a latent class model, where the first stage is a class membership model and the outcome (travel behaviour) model may also be a discrete choice such as destination, mode, or route; an ordinal or count choice such as frequency; or in some circumstances a continuous variable such as the destination's distance from home. In such a latent class model, the kinds of variables described in the preceding paragraph (and in general, the variables on the left side of Fig. 1) would be the explanatory variables in the class membership model, but the classes themselves would be endogenously identified and may not crisply identify with the four scenarios. In either case (deterministic or latent classes), the outcome model can have a different specification for each class.

Alternatively, however, we can envision individuals as having a *degree* of preference for each scenario, and instead of modelling a single preference or 'choice' among those scenarios, we can associate a three- or four-dimensional vector, capturing the intensity of liking for *each* dimension (escape scenario), with each person. We could then imagine clustering a sample on those vectors to group people with similar escape-scenario profiles, and treat the clusters as segmentation variables for the travel behaviour model. Numerous other conceptions are possible, of course.

As for the outcome model itself, for the sake of illustration we focus on a destination choice situation, in which each destination has a utility function. In its simplest form, the utility that person i has for travelling to destination δ to carry out one or multiple activities depends on (a) the characteristics (pros and cons) of that destination (which could be person-specific, as in the case of perceived attributes, opportunity/desire to splurge or economize on lodging and food, or legal restrictions), (b) the travel time to the destination, (c) other elements of the generalized travel cost (monetary cost, congestion, etc.), and (d) the degree of enjoyment of travel for its own sake:

$$U_{\delta I} = f(a_{\delta i}, b_{\delta i}, c_{\delta i}, d_{\delta i}) + \varepsilon_{\delta i}$$

In a bit more inclusive form, and in line with Fig. 1, the utility is a function not only of the characteristics of the destination and the associated travel, but also of the characteristics of the person (P_i), characteristics of the origin (O_i), other context factors (C_i), earlier experiences (E_i) and time since previous escape (T_i):

$$U_{\delta i} = f(P_i, O_i, C_i, E_i, T_i, a_{\delta i}, b_{\delta i}, c_{\delta i}, d_{\delta i}) + \varepsilon_{\delta i}$$

These mathematical expressions are more general than the value of escaping per se, because we also include the destination utility. For a pure scenario A1, in which travel *is* the escape, the destination utility ($a_{\delta\, i}$) can be deleted. But even if people travel to escape, we argue it can still matter to which place people travel. Consequently the mathematical expressions make clear that the concept of escaping can easily be combined, and maybe even *should* be combined, with other reasons to travel; it is not necessarily a stand-alone concept. In scenario A1 the utility of a trip can directly be calculated based on components of GTC ($b_{\delta\, i}$ and $c_{\delta\, i}$) plus the positive utility

of travel ($d_{\delta i}$), where (as mentioned above) the travel time ($b_{\delta i}$) should have a less-negative or positive coefficient. The length (in time) of a net-zero-utility trip could then be defined as the point at which the marginal (positive) utility of travel equals the marginal disutility of other GTC components. Note that the travel behaviour model does not have a stand-alone component to express the utility of escaping. The utility of escaping, and in scenario B also the desire to not be accessible by others, is viewed as being captured by the influence of those factors on the coefficients of the explanatory variables in the travel behaviour model, as indicated earlier.

Including escape-related motivations in travel behaviour modelling complicates that modelling, but we think it should be doable. And modelling travel behaviour, including escape-related drivers, probably still is not more complex than, for example, modelling residential choice.

6. An explorative empirical study

Making use of a convenience sample of people in the Faculty of Technology, Policy and Management, Department of Engineering Systems and Services, at the Delft University of Technology, we conducted a first explorative study to assess to what extent people travel to escape. The purpose is only to explore to what extent people recognize motivations to escape, in line with the categories of options to escape presented in Table 1. It is not our aim to validate complex causal structures like the one presented in Fig. 1. We asked people to express their level of (dis)agreement with propositions on a three-point Likert scale, ranging from 'seldom/never' via 'sometimes' to 'often'. 'I do not know' was also an answer category. We first explained that we are interested in travel to escape from something, not in the motivation to travel in order to reach a destination to carry out an activity. In addition, in an open-ended question ('Can you elaborate and/or give examples?') we asked for further elaboration on the topic of travel to escape.

It is possible that people find it difficult to admit that they want to escape from their family or colleagues. Therefore we also asked about their impression of TtE on the part of others. Our inspiration comes from research in the area of positional goods. Positional goods are goods for which the utility for a person not only depends on characteristics of that good and person, but also on what others have of the same good. For example, the utility of a car for a person not only depends on the characteristics of the car and the person, but also on the cars that others (relatives, friends, colleagues, neighbours, …) have. People often do not admit that their utility is influenced by what others have, but answering questions about what their grandchildren would prefer reveals more positive answers to questions about positionality (Johansson-Stenman et al., 2002). Tables 2 and 3 present the results of the answers to the statements. Thirty-four persons completed the questionnaire, three of which did not answer the questions for 'others', the reason probably being that they do not know. But because we are not certain about this, we omitted them from Table 3.

Only one respondent answered 'seldom/never' to all questions, but unexpectedly for the open-ended question s/he gave an answer of escaping from her/his partner when they have an argument. All other respondents answered 'sometimes' or 'often' to at least one question addressing them personally, and one question addressing 'others'.

Tables 2 and 3 show that respondents do recognize the concept of escaping: over all statements the share of 'sometimes' or 'often' is 40 % for the respondents themselves, and slightly over 60 % for others (excluding the 'don't-know' responses). People more often escape from home or travel to be alone or clear their head, than they escape from work or their neighbourhood. This applies to both undirected travel as well as travel to a place. And this also applies to 'others'. A bit more than a quarter of the respondents sometimes or often travel to places to reduce accessibility, and the share of 'sometimes' and 'often' for others is even higher (about two thirds). About two thirds like the option to be able to escape. And for others the share of 'sometimes' or 'often' is even 86 % (19 out of 22). Note that in the numbers for 'others' we ignored the answer category 'I do not know'.

Table 2
Answers to questions about the respondent her/himself.

Questions about you	Seldom/ never	Sometimes	Often
Undirected travel			
I sometimes make a trip, not to a destination, but only to escape from home	19	13	2
I sometimes make a trip, not to a destination, but only to escape from work	24	7	3
I sometimes make a trip, not to a destination, but only to escape from my neighbourhood	27	5	2
I sometimes make a trip, not to a destination, but only to be able to be alone or clear my head	14	19	1
Travel to a place			
I sometimes travel to a destination (partly) to escape from home	18	14	2
I sometimes travel to a destination (partly) to escape from work	24	6	4
I sometimes travel to a destination (partly) to escape from my neighbourhood	28	5	1
I sometimes travel to a destination (partly) to be alone or clear my head	13	17	4
The desire not to be accessible or not to be able to travel back easily			
I sometimes deliberately choose to travel to harder-to-reach places, to reduce the expectation that I could easily return or easily be visited by others	25	6	3
Option to be able to escape			
I like the idea of being able to escape from home, work, residential area or work place, regardless of how often I actually make such trips	11	11	12
Total	203	103	34
%	60	30	10

Table 3
Answers to questions about others.

People I know well …	Seldom/ never	Sometimes	Often	I don't know
Undirected travel				
Sometimes make a trip, not to a destination, but only to escape from home	10	15	2	4
Sometimes make a trip, not to a destination, but only to escape from work	10	10	5	6
Sometimes make a trip, not to a destination, but only to escape from their neighbourhood	15	2	4	9
Sometimes make a trip, not to a destination, but only to be alone or clear their head	6	12	7	6
Travel to a place				
Sometimes travel to a destination (partly) to escape from home	9	11	5	6
Sometimes travel to a destination (partly) to escape from work	9	6	8	8
Sometimes travel to a destination (partly) to escape from their neighbourhood	12	4	4	11
Sometimes travel to a destination (partly) to be alone or clear their head	6	11	9	5
The desire not to be accessible or not to be able to travel back easily				
Sometimes deliberately choose to travel to harder-to-reach places, to reduce the expectation that they could easily return or easily be visited by others	8	6	5	12
Option to be able to escape				
Like the idea of being able to escape from home, work, residential area or work place, regardless of how often they actually make such trips	3	10	9	9
Total	88	87	58	76
%	38	37	25	

Comparing Table 3 and Table 2 reveals that the overall scores for 'sometimes' and 'often' for 'others' are higher than for the respondents themselves. This could be due to the fact that people find it a bit difficult to admit they sometimes travel to escape, but it could also be that they know many people and it is more likely that at least one of all the people they know travels to escape, than that they themselves do this.

At the end of the questionnaire we asked the respondents: 'can you elaborate and/or give examples?' More than half (20 of the 34) respondents did this. One respondent answered: 'seems pretty useless questionnaire', and two answers were not about escaping but about motivations to travel in general. The rest of the responses were insightful reflections/examples. Below we give some examples.

First a nice example of escaping to clear one's head:

"I think that I (and my girlfriend) only 'escape' because to clear my head. Just a walk or cycle tour. I am not sure if this is 'escaping' "

An example of escaping from home/family:

"Sometimes, I and my wife have an argument, one of us may go out without destinations."

An example of escaping from a neighbourhood:

"I live in a busy area and often there is construction during the day. So I try to escape the noise. Sometimes I get under-stimulated by WFH and need a walk."

An example of escaping from work:

"I like to take walks and I know others that like that too. Pre-corona, I used to take a short walk from the workplace almost every day to clear my head."

A few examples of the combination of escaping and a positive motivation to travel:

"It depends on the definition of escaping. All vacation trips, weekend trips etc. can be considered as being made for the reason of escaping your normal environment, although one might also say that there is a positive motivation (relaxation, new cultures, nature)."
"I like to take short trips/long weekends to well studied destinations to empty my head and leave work at home."

A few examples of multiple forms of escaping for different people:

"Last year, I had three people independently visiting me in the Netherlands to escape from their personal or work situation at home. Another friend flew and stayed in South America for three months after quitting his frustrating full-time job."
"People who usually go to remote destinations, people who travel by motorbike, people who go to lonely islands, people who go to retirement venues."

A few examples of different forms of escaping for one person:

"a) I moved to a different continent to be away from my overbearing family. When I was living with them, I would very often (almost every day) make trips with & without destinations to be away from home. b) I like to travel and hike in remote places to be away from social interactions. c) During the pandemic, home = workplace. So, getting out of the house (even for a brief time) has also become an escape from work."

> *"eco-tourism, camping, and mountain climbing as a way to escape the city and people, and find time to be alone; travel to another city in new year vacations to escape family visits; a one or two days short trip to a nearby city to change the atmosphere and refreshment while work pressure is too high"*

All in all we conclude that the questionnaire confirms our ideas that TtE is a concept that applies to some trips, at least for some people.

7. Ideas for future research

Our explorative study is a first confirmation of our ideas only. We next discuss some ideas for future research in a more advanced way. A first option is to further empirically study for whom and under which conditions travel behaviour is (partly) motivated by the desire to escape, and from what. This could be done by asking people questions about their desire to spend time out of home, to escape daily life, questions to ask if people sometimes make business trips to not work at their daily working location (or to escape from home life), motivations to telework, and motivations for choosing remote holiday destinations etc. Likert scale scores on (dis)agreement with propositions are an option, as well as focus group meetings, and interviews. Such studies could disentangle the different forms of TtE as presented in Table 1. More advanced empirical research could try to disentangle all positive and negative motivations to travel and different components for the valuation of travel time, as discussed in Section 3.

Another cluster of research should be the further development and validation (or not) of conceptual models such as Fig. 1. The model we present is quite generic, and can easily be expanded in multiple ways. For example, we also envision a feedback loop in which past travel behaviour choices indirectly influence the utility of escape scenarios in the future, although it is not always clear precisely how. For example, an extremely satisfying past escape could lengthen the time until the next escape (because the need to escape has been assuaged for the time being), or it could shorten it (because one wants to repeat a pleasant experience). Another example: it is possible that the desire to be able to escape easily from daily life could influence residential choice. In other words, intentions to escape could be a driver for residential self-selection. Next it could lead to work-related self-selection. It could, for example, be that a person likes a work location in a central urban area, to be able to easily escape from work during shorter episodes (visiting a supermarket, lunchroom, café), or alternatively in a very quiet rural area or forest, to escape for a quiet walk at lunch. In addition it is possible that option values apply, both to the residential as well as to the workplace choice: people might self-select into specific residential or work areas to have options to escape available, regardless of their actual TtE. The model could be expanded to conceptualize these location decisions. In the case of applying the concept of escaping to Time Geography, the impact of constraints could be explicitly included. In case of activity based modelling the model could be extended including (options for) activity participation. To summarize, we advise adapting our first conceptual model depending on the reasons to include TtE in future research.

Once a satisfactory conceptual model has been developed, future quantitative research could be survey based. A questionnaire amongst a sample of the full (adult) population would be a good point of departure. In many countries survey panels comprising a sample of the full population are available, and could be used. The questionnaire could include questions related to the different scenarios for escaping, and as explanatory variables (in line with our conceptual model) socio-demographic variables, attitude variables, the social and environmental context of people (characteristics of their household, work, neighbourhood), and earlier experiences with escaping (did they travel to escape in the past, how long ago, why, how?). The questionnaire should next include the behavioural impacts of travel to escape (travel behaviour, location choices), and perceived (lack of) accessibility. For the data analyses several options are available, a first option being Structural Equation Modelling (SEM), if more complex causal relations (than in our conceptual model) were to be assumed. For example, one could assume that socio-demographics and attitudes directly influence the escape scenarios, but also via residential choice (residential self-selection), and next that the residential choice influences the escape scenarios, especially in the case of escaping the neighbourhood. Also latent class analyses are an option, departing from the idea that latent classes of people exist, and those classes distinguish themselves on the basis of the desire to escape in multiple ways.

Finally, the simple mathematical expressions of Section 5 can become more complex if more factors are included. For example, as mentioned above, they could incorporate constraints, such as the coupling and authority constraints addressed in Time Geography (Hägerstrand, 1970). For example it is likely that constraints because of limited opening hours of shops or services, or constraints because of joint activities with others, influence the locations to which one is able to escape, or even the possibility to escape. In addition, it is possible that the positive utility of escaping is influenced by options for ICT-based communication – the options to be accessed electronically could *reduce* the positive utility of escaping by offering an acceptable substitute, or *increase* the positive utility of escaping by 'tempting' an individual with enticing options for doing so. Given the multiple roles of ICT (including as inspiration, information provider, explanatory variable, and one of the alternatives; Mokhtarian and Tal, 2013), including ICT conceptually and empirically adds to the causal complexity.

The formulas could next be extended by including interaction terms, examples being interaction terms within P_i (e.g. age and family characteristics), or between P_i and elements $a_{\delta\, i}$ through $d_{\delta\, i}$: specific (groups of) people may value those elements differently. For example, income is often related to costs and travel time (valuation), and then an interaction term between income and costs, or between income and time, could be added.

And the utility function does not necessarily have to take a simple linear additive form. Exploring which mathematical form works best in which cases therefore is a promising avenue for future research.

8. Discussion and conclusions

The foregoing discussion has a number of implications. A first implication is that it is important for researchers and travel behaviour modellers to realize that some people could travel because they want to escape from something. This extends the range of reasons why people travel. A second implication is that the idea of TtE means that people would travel more than if such a motivation were absent. In other words, there is more travel than what would result from the assumption that all travel is derived, or motivated by the positive utility of travel for its own sake. This first of all applies to travel as the form of escaping (scenario A1 above) and the desire to be inaccessible and making it difficult to travel back (scenario B). But even in scenario A2, where teleportation (if it existed) could do the job as well, travel is so far still needed, although valued negatively. An exception in which the escape concept operates in reverse to *reduce* travel is the situation in which persons telework one or a few days per week, to escape from work (the same motive could lead someone to take occasional personal days off from work).[2]

A third implication is that the notion of additional travel because of the desire to escape is not only relevant in itself (first topic discussed above), but also helps us understand other concepts, at least the concept of a constant travel time budget: a large group of people, such as all inhabitants of a country, on average spend a quite stable time budget on travelling, of about 60–75 min per person per day (Mokhtarian and Chen, 2004). In explanations for this constancy (see, for example, Van Wee et al., 2006), the desire to escape from something could be added. Fourth, the concept of accessibility needs to be rethought: it could be that people attach a positive utility to a lower, not a higher level of accessibility, in some cases and under some conditions.

Fifth, for TtE trips in scenarios A1 and B, an increase in the speed of travel would probably result in a loss of utility, not an increase. In scenario A1 this loss of utility is explained by the higher monetary costs of longer trips within the same time (in case of most motorized trips – the unlimited free use of a leased car, or public transport passes being exceptions). In scenario B the negative utility results from the higher level of accessibility that is not appreciated. Therefore, the inclusion of the concept of travel to escape could influence the appraisal of transport policies, at least because of the impact on the value of travel time, examples being infrastructure policies.

Finally, if TtE were to stay constant over time, ignoring it would perhaps not be very important, and the ignorance might be partly captured implicitly in travel behaviour models and valuations of travel time savings. But if levels of TtE were to change over time, this does not apply anymore. It could be that the magnitude of TtE increases in the future, or has already increased in the past decades or so, due to the changing role of ICT in everyday life – reducing options to escape because people are continuously accessible online. It seems plausible that consequently some people increasingly prefer to escape (even though they cannot, or can only partly, escape from being accessible online).

All in all we conclude that people sometimes travel to escape, and that TtE can be conceptualized well and expressed mathematically, departing from the concept of utility. Future research can be helpful to further develop and understand the concept of TtE.

CRediT authorship contribution statement

Bert van Wee: Conceptualization. **Patricia Mokhtarian:** Conceptualization.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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[2] Although in truth, the opposite situation is probably more common: the idea of going to work (partly) as an escape from home is well-established (and popularized by Hochschild, 1997), even if not always acknowledged as such.

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