From global ideas to local action

Building capacity to reshape urban transport policy

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The City of Denver is building 125 miles of bicycle infrastructure over the next few years.
Denver, Colorado

3

CHAPTER 3

Learning from elsewhere and sitting on the fence: Reviewing concepts and drivers for the transport policy domain

Abstract | A key way to deal with the challenges of pursuing sustainable mobility is through policy transfer and policy learning, i.e., of "best practices". In transport planning, many levels of governance are urged to 'learn from elsewhere'. A better understanding and explanation processes and factors that facilitate learning *through* policy transfer might support acceleration of knowledge transfer, yet remain underdeveloped in the field of transport especially compared to other fields (i.e., environmental policy). Through a systematic review process, this paper synthesizes concepts, operationalization, and key factors that drive this particular learning process from 53 papers in transport policy research from 2011-2019, using a novel codebook methodology adapted from a previous review. Findings indicate that while most papers aim to examine learning, few employ theories or operationalizations to measure the concept. Critical factors in the learning process include inter-actor cooperation, organizational resources, and the learning settings such as face-to-face group activities. Many of these factors play a dual role, depending on context, both driving the process and, in their absence, hampering it. Our findings extend discussions about transport policy transfer, which tend to focus on policy implementation or failure, rather than the learning process. Several implications are discussed, including demarcating boundaries between 'learning' and 'transfer', attending to dynamics of place and time, and concerted cross-discipline efforts to empirically measure learning processes, especially with existing seminal work from fields such as organizational learning, education and policy studies.

A version of this chapter is currently under review at the journal Transport Reviews.

3.1 Introduction

A much-promoted way to deal with the challenges of the transition to sustainable mobility is engaging in policy transfer, "the process by which knowledge about policies, administrative arrangements, institutions and ideas in one political system (past or present) is used in the development of policies, administrative arrangements, institutions and ideas in another political system" (Dolowitz & Marsh, 2000, p. 344). The widely-cited *policy transfer framework* – a heuristic, according to the authors (Dolowitz & Marsh, 2012) – proposed a catalogue of concrete questions that define the process: why policies are transferred, who is involved, what is transferred, sources used, effectiveness, and barriers put forth by Dolowitz & Marsh (2000). However, scholars have challenged this framework, firmly criticizing the rationalist underpinnings (i.e., Evans & Davies, 1999; Stone, 2001), and its inability to explain learning processes involved in policy making (Dolowitz & Marsh, 2012; Evans, 2009). The questions of *how* knowledge about policy actually transfers and what are the drivers and barriers for 'learning from elsewhere' are less developed, especially in the transport domain (Glaser et al., 2019; Marsden & Stead, 2011).

An important milestone in the literature on policy transfer in the field of transport is Marsden & Stead's (2011) review. While there are many definitions and conceptualizations of the movement of policies and ideas, the authors adopt the Dolowitz and Marsh (1996) framework to analyze both policy transfer *and* learning. Marsden & Stead (2011) find that although the transfer of policies and ideas does occur and can be influential in the implementation of transport policy, the role of learning remains overlooked, inadequately described and, therefore, poorly understood.

Nearly a decade on, their conclusion acts as the starting point for this review – does this conclusion stand, are these questions still unanswered, or has the field's cumulative knowledge of this learning evolved? To find out, this review explores empirics from 2011-2019 to unpack the state-of-art of 'learning from elsewhere' within transport policy. The aim is not to gather further evidence of the phenomena, rather, the article collates existing empirical evidence uncovering *how* learning happens *through* policy transfer. Not only does this approach update the empirical body of research specific to transportation policy transfer, the focus of this analysis specifically explores how learning is conceptualized in this body of work. Exploring how decision makers and transportation professionals learn from elsewhere, including details of learning processes, drivers, and barriers, enable a

clearer picture of processes which facilitate applications for practice. A better understanding and explanation of learning processes might greatly support acceleration of policy transfer in the transport domain.

To address the above gaps, a systematic literature review was conducted, with guidance from Wee & Banister (2016) and Gerlak et al. (2018). The paper continues with a theoretical embedding before discussing our methodological choices, including research question, search strategy and assessment details, followed by our findings. The paper closes with a discussion regarding implications and future research opportunities.

3.2 Theories underpinning 'learning from elsewhere'

The external search of policy ideas and knowledge is centuries old, however, in policy studies, the topic garnered significant academic interest in the 80s and 90s. While it is beyond this paper's scope to document the rich scholarly history of the subject, we outline several strands here. Theoretical approaches to learning vary subtly, but all delineate "an improved understanding of cause-and-effect relationships in the light of experience" (Meseguer, 2006, p. 38). Learning is evidenced through change in behavior (Heclo, 1974) or in beliefs, through policy narrative (Hall, 1993). Whether political (Heclo, 1974), social (Hall, 1993) or policy-oriented (Sabatier, 1988), many concepts have systematized and characterized learning subjects (who), objects (what), and outcomes (what happened). For this review, interest lies in 'learning from elsewhere' and thus particular aspects such as geography, mobility, and travel shape theoretical interests.

One of the general assumptions of learning from elsewhere is that governments have limited capacity to solve complex problems and thus look to other governments which have, for example, attained a desirable outcome or have implemented particular policy instrument(s) in light of similar, related challenge(s). Other reasons for initiating a search have also surfaced, such as increasing access to global communications and networking (McCann, 2010). Oftentimes, the seeking party then gains 'first-hand experience' of the policy in action by traveling to a geographical destination, as Rose (1993) defines as an essential first step in "lesson-drawing." This type of travel, some call "policy tourism", is considered the "gold standard" for learning about

policy (Hudson & Kim, 2014). The questions then become: does learning occur, how, and driven or hampered by what?

Dolowitz & Marsh (1996) and other policy transfer scholars systematize transfer cases with details such as reasons for transfer, participants involved, what is transferred, sources used, effectiveness, and barriers to implementation. Their framework underlines a series of questions designed to assess the motivations, the workings and outcomes of policy transfer. However useful, for example, in cataloguing the process of policy transfer, critics have argued that the framework presents overly rational understandings of the policy making process, discounting many contextual aspects such as institutional forces (Evans & Davies, 1999) and the scales and networks at which transfer occurs (McCann, 2010). Using classification systems to assess or explain learning generates at least two predicaments. One, policy transfer and learning are often bundled, not necessarily as one process but lack of distinctions (for example, between phases of learning) muddle the ability to operationalize and measure learning. Second, outcomes of the process – either learning or transfer – emphasize policy reform of specific, codifiable (often technical) solutions, while other outcomes of a learning process (i.e., cognitive or collective behavioral changes) are obscured.

Taking cues from geography, the more recent 'policy mobilities' scholars argue that socio-political factors, such as actor agency, power structures, and policy networks give rise to certain policy models and the "transfer agents" mobilizing this knowledge (McCann & Ward, 2012; Peck & Theodore, 2010). In this body of literature, learning is shaped by actors deploying expertise and truth claims in places or settings of learning that promulgate social interaction between elite actors (Cook & Ward, 2012; Temenos & McCann, 2013). In transport policy research, mobilities perspectives have garnered limited but growing attention. Nevertheless, the understanding of *how* actors learn about new ideas, policies, or programs from within the process and at "the sites of transfer" (Hudson & Kim, 2014, p. 496) remains underdeveloped (Moyson et al., 2017). This article seeks to uncover characteristics of learning to enable a clearer picture of processes that facilitate learning *through* policy transfer.

3.3 Research design

The question guiding this paper is: *How does transport policy transfer literature engage with the concept of 'learning' and what key factors of learning through policy transfer can be gleaned?* The specific aims include to (a) critically assess the degree to which

transport literature engages conceptually and empirically with the learning in policy transfer and to (b) identify factors that drive learning in policy transfer.

While there is no consensus on how to conduct a literature review, transparent, replicable steps of the search process are recommended (Wee & Banister, 2016). First, search words were devised and a set of explicit criteria developed. Keywords selected included: 'policy learning,' 'policy tourism,' 'policy transfer,' 'policy diffusion,' and 'policy mobilit*'. The resulting output was then filtered for the keyword 'transport*' to limit results to the relevant field and cases. Inclusion criteria were simultaneously applied: publication date (2011 - 2020), language (English) and article type (peer- reviewed journal). As we aim to assess progress since the review by Marsden and Stead (2011), the search was restricted to publications between 2011 and 2020.

The search was then conducted in two databases (SCOPUS and Web of Science), returning 67 and 64 articles respectively. Results were saved on an Excel spreadsheet. The search took place on January 31st, 2020. Output from both databases were manually combined, and duplicates removed. Each paper was verified to meet inclusion criteria. Here, several papers were removed due to their theoretical nature. This resulted in 53 articles for the analysis stage (see Appendix C for list of included articles).

To assess and synthesize the literature, a codebook and coding instructions were adapted from Gerlak et al. (2018) into an applicable tool for this research (see Appendix A). The codebook covered 45 fields in an Excel spreadsheet.[i] The questions spanned: (a) themes, research question(s), theoretical framework, definitions, conclusions; (b) methodological details; and (c) drivers and barriers of learning. These areas were assessed using yes/no questions, numerical coding and qualitative fields (text citations, page numbers, other assessments). The codebook method allowed a team of researchers to code the papers and systematically compare results across the sample, increasing the validity of the findings. Certain fields included additional decision rules to cultivate consistency in the coding process. For example, fields for theoretical frameworks and drivers/barriers were transcribed from the papers into the codebook; when the column was complete, the data was systemized into distinct codes through an inductive process. The table was completed by two researchers and then cross-checked to increase internal validity. An additional researcher was randomly assigned

10 articles for enhanced internal validity. For codebook questions yielding numerical values, results received statistical analysis (see Appendix B).

3.4 Results

In the following paragraphs we first provide an overview of the literature sample (see Tables 3.1 – 3.2 and Appendix for details) and then proceed with addressing our research questions.

Research landscape overview

Scholarly attention

With no marked slumps or summits between 2011 and 2019, the 53 articles analyzed were published in 38 different peer-reviewed journals; 60% of articles were featured in journals which do not solely focus on transportation, but rather policy, geography, urban planning, and urban studies. Trending transport-orientated topics include: transportation and land use integration, such as transit-oriented development (TOD); active transport (such as cycling policy); and bus rapid transit (BRT).[1]

Dominant theories

Diverging theoretical underpinnings were present (see Table 3.1). In about half (25), the political science-based policy transfer theory was used to frame "learning from elsewhere". Twelve papers deploy the Dolowitz and Marsh (1996) framework as an operational tool for analysis, synthesis, or assessment of a process of policy change, however rarely in its original entirety, but rather as a starting point. The rest of the sample was split between several strains: (a) policy learning and derivatives (i.e., policy-oriented learning and lesson-drawing); (b) policy mobilities perspectives; and (c) sociological theories, such socio-technical transitions, cultural symbolism, discourse framing, and planned behavior.

Methodological choices

Qualitative methods dominate this area of research, particularly single-issue case studies, with interviews as the preferred method of data collection and sample sizes varying from one informant to "more than 40" and "over one hundred". Most papers (39) examined policy transfer and policy learning cases *ex-post* or retrospectively, while 11 articles conducted ex-ante/hypothetical research.

Geographically, three-quarters of the sample consisted of case studies of the Global North (27 articles with European cases alone); the Global South was highly underrepresented (15 articles). Twenty-seven articles examine cases within one city or between cities or urban regions; 11 investigate nation- state cases.

Table 3.1 Summary of theories framing 'learning from elsewhere'

Bodies of research	Transport journals N (%)	Non-transport journals N (%)	Total	Example
Policy transfer	16 (30)	9 (17)	25 (47)	Rye et al. (2011); Pojani et al. (2017)
Policy learning	3 (9)	7 (13)	10 (19)	Policy-orientated learning (Heclo, 1974) in Ben-Zadok (2018); lesson-drawing (Rose, 1993) in Fink (2019)
Policy mobilities	1 (2)	11 (21)	12 (23)	Sheldrick et al., (2017); Wood (2015a); Montero (2017b)
Sociological	1 (2)	11 (21)	12 (23)	Cultural symbolism (Ashmore, 2018); Socio-technical transitions (Sengers & Raven, 2015)
None	0	3 (6)	3 (6)	

Total Sample = 53 articles. Source: compiled by author

Table 3.2 Summary of Research Designs

Method	Total N (%)	Examples
Qualitative	47 (89)	
-Interviews	36 (68)	Attard et al. (2011); Pojani & Stead (2011)
-Document analysis	30 (57)	Anderton et al. (2015); Timms (2011); Lawer (2019a) Gray et al.
-Focus groups	7 (13)	(2017); Rye et al. (2011); Wang (2019)
Quantitative	8 (15)	
-Surveys	5 (9)	Duffhues et al. (2015); O'Dolan & Rye (2012)
-Statistical tests	5 (9)	Börjesson et al. (2014); Arbolino (2018)
Mixed-Methods	2 (4)	-
Ex-post	39 (74)	Thomas & Bertolini (2017); Timms (2014)
Ex-ante/hypothetical	11 (19)	Kaszubowski et al. (2018); Thomas et al. (2018)

Total Sample = 53 articles. Source: compiled by author

Most notably, there was a wide range of methodological transparency, especially among the papers using interview methods (36). Four of these articles were coded as thoroughly transparent (Hysing & Isaksson, 2015; Macmillen & Stead, 2014; Pojani et al, 2017; Pojani & Stead, 2015), including details such as recruitment, response rate, schedule or protocol, interview location/duration, transcription, and coding procedures. Fifteen articles omitted methodological description of their interview process, and seventeen articles offered limited descriptions, often only reporting general professions of interviewees or organizations. Of the papers using survey instruments, specific items, questions or topics were excluded.

How does the literature engage with the concept of 'learning'?

Learning as a research aim, variable, and outcome

In this sample, all but five articles mention *learning* to varying degrees. The word often appears synonymous with transfer, innovation, and change. Regardless of primary theoretical framework, coding analysis shows that 21 articles (40%) treat learning as a key concept. That is, learning was identified as (a) a research aim or (b) a key variable or outcome. Roughly one-third of the articles (17) contain a research question or goal that explicitly includes learning. Of these, many are interested in uncovering influential factors of successful learning, barriers to learning, or how to learn from failure. For example, Macmillen & Stead (2014) critique "best practice" as "the *de facto* approach" to aid learning, similar to Lawer (2019b). Newman & Bird (2017) examine policy failure, and how and if lessons learned are factored into future planning decisions.

Twenty-one papers indicate learning as a variable, outcome or implication, demonstrating the concept's ambiguous nature. For example, learning as a dependent variable: "Failures can be important to the learning process...In this article, we propose some conditions that can prevent governments from learning from policy failure" (Newman & Bird, 2017, p.71). As an outcome, policymakers' "openness to learning and knowledge" was found to be a pivotal factor in successful adoption of TOD policies (Thomas et al., 2018, p. 1202) and bike share systems in China (Wang, 2019). Many articles identified learning as an implication of their research. May (2015) suggests that city organizations would benefit from adopting "better learning cultures" in order to increase receptivity to outside ideas and policies, therefore becoming more successful at policy transfer (p. 10). Several also noted that learning is not a neutral activity; it can be used in contradictory and problematic ways to accommodate political needs, legitimize power, and justify economic growth (Haughton & MacManus, 2012; Lawer, 2019b).

A variety of learning concepts

A range of learning theories are cited in two-thirds of the sample (35 papers); however vastly differing in scope and specificity. Ten distinct types of learning were identified and many reference more than one type of learning (Table 3.3). Of those papers which explicitly do *not* identify learning as a research goal, key variable, implication or outcome, many (10) nevertheless associate their work with a specific type of learning. However, few apply these concepts theoretically or empirically, for example, through operationalizations. Only one author provides a clear definition for, in this case, *policy learning*. In an examination of the influence of site visits on the transfer and implementation of bike-share programs, Ma (2017) defines policy learning as: "either the direct adoption of concrete policies or indirect heuristics of ideas, and both approaches benefit policy design and implementation" (p. 584).

Table 3.3 Types of learning identified

Type of Learning	Total N (%)	Example
Policy Learning	32 (60%)	"The nature of policy learning and transferability can be inferred from the content and evolution of urban transport strategies in Australia." (Bray & Taylor, 2011, p. 522) "...the study tour has become the hallmark feature of policy learning across South African municipalities" (Wood, 2014, p. 2659)
Organizational Learning	6 (11)	"...the lack of an organisational learning culture in cities appears to be the most critical barrier to cities learning from one another" (May, 2015, p. 10) "Organisational learning theory offers an explanation as to why the motivation of individuals may dominate the process." (Marsden et al. 2012, p. 907) "...reflexive process of 'double loop' learning (Argyris & Schön, 1978), calling into question the very purpose of policy itself" (Anderton & Palmer, 2015, p. 140)

Type of Learning	Total N (%)	Example
Social Learning	4 (8)	"Social learning and economic competition are two primary forces driving policy diffusion at a horizontal level…" (Ma, 2017, p. 584) "In social policy learning, where subjective perceptions and ideologies are prevalent, government makes choices among deep core beliefs." (Ben-Zadok, 2018, p. 126) "The reliance on social learning processes suggests the need to support peer-peer exchange networks as a means for promoting the detailed exchange of information…" (Marsden et al. 2010, p. 11)
Other: Meta-learning Iterative learning Conceptual learning Perverse learning Situational learning Gradual learning Collaborative learning	9 (17)	"…meta-learning may occur where such governance knowledge transfer is then taken up at other scales." (Fink, 2019, p. 18) "Where a dominant framing of a problem is well embedded throughout the policy- making community for instance, opportunities for conceptual learning, where the boundaries around problems are redrawn, may be missed…" (Anderton & Palmer, 2015, p. 146) "This article investigates … 'gradual processes of learning', which include the process of policy learning…" (Wood, 2015, p. 578)

(N = 35) Percentage totals show 52 appearances of learning types across 35 articles.
Source: compiled by author

Policy learning was the most-cited learning concept (32 papers). However, no substantive pattern emerged for its use, origin, or associations. Although rarely defined, some present descriptive interpretations of its meaning. For example, Montero (2017b) offers one explanation: "the process of making changes in urban policies, programs, or planning mechanisms based on the experience of another city" (p. 332). Sheldrick et al. (2017) provide another: "where policy knowledge is conceived in one territorial context, circulated relationally in time and space to be adopted in a different context" (p. 2743). In many papers, the term policy learning seems synonymous with 'transfer', 'transferability', 'adaptation', and 'knowledge exchange.' In the absence of conceptual unpacking, many imply that policy learning equates to acquiring new information, but applying or embedding that information is rarely further examined.

Organizational learning and social learning are also popular. For example, Argyris & Schon's (1978) theory of single and double-loop learning is called on in an exploration of bio-fuel targets (Anderton & Palmer, 2015) and to explore city-to-city cooperation (Shefer, 2019). Marsden et al. (2012) discuss institutional constraints and organizational behavior as central considerations of actor learning. Although several other types of learning (categorized as 'Other' in Table 3.3) are featured, these theories are not used to measure learning.

How learning is measured?

Although learning is a principal concept in half of the papers, only four articles explicitly aim to measure learning and/or demonstrate to what learning leads. Montero (2017b) examines the role of study tours in policy transfer to "understand...how these learning practices result in policy change" (p. 333). While the process and forums of learning are illuminated, explicit measurement of learning remains unclear. Thomas & Bertolini (2015) measure learning in a workshop with transport professionals working on TOD implementation with pre-/post-workshop surveys. Ben-Zadok (2019) analyses government documents to chart the pace and extent of policy learning in smart-growth legislation. In a retrospective case of city-to-city collaboration, Shefer (2019) explores the extent of learning between local governments in Germany and Israel; however, it remains unknown how this was measured.

What factors influence learning?

A variety of factors are indicated in 43 articles; while some ascribe them to policy transfer or implementation (or failure), many blend these concepts or do not make a distinction. Additionally, depending on the context, certain factors were often identified as both facilitating a process and hampering it (sometimes in the same article). Therefore, this analysis includes insights on whichfactors represented drivers and barriers identified as influential in any change process, whether or not the article's author(s) specifically cite learning or transfer.

Learning settings

By far, the setting where learning takes place represented the most identified

factor, as a driver in the learning process for 33 articles and none pinpoint the setting as a barrier. The learning settings were characterized by face-to-face, group activities where social interaction is encouraged if not required. Examples include workshops (i.e., Duffhues et al., 2014; O'Dolan & Rye, 2012), conferences and policy fora (i.e., Montero, 2017a; Wood, 2015a), study tours (i.e., Bok, 2015), and official meetings (i.e., Ma, 2017; Walker, 2019). Below, three most commonly-mentioned settings are explained.

Networks appear as the most common setting for and driver of learning (28 articles). Most do not explore why or how "policy networks" form or what these networks do, rather networks seem to simply "play a role in the spread of policy models" (O'Dolan & Rye, 2012) and to facilitate the process of transfer (Bray et al., 2011) and governance learning (Lawer, 2019b; Shefer, 2019). Others offer deeper insights into the scale and power associated with networks. For Sheldrick et al. (2017), different "networks of influence" (p. 2747) are leveraged for different purposes. On one hand, larger, national level networks disseminate ideas (echoed by Lawer, 2019b; Ma, 2017; Parkes et al., 2013; Timms, 2011) but also "shape and structure knowledge flows" (Sengers & Raven, 2015, p. 170). Smaller, local networks consist of "closer-knit policy actors" (Macmillen & Stead, 2014, p. 82) which build legitimacy and persuasive power (Macmillen & Stead, 2014; Thomas & Bertolini, 2015) especially when "key actors" within the network have attained a certain level of influence. "Trusted" and "personal" connections appear to form a foundation no matter the scale (Marsden et al., 2010; Marsden et al., 2012; Montero, 2017b; Wood, 2014b). Perverse effects of networks are rarely discussed – such as issues of equity of in/exclusion (Sengers & Raven, 2015) and the inability to mobilize networks as a structural barrier to policy implementation (Pojani & Stead, 2015).

Organized group travel or visits are recognized as advancing (group) processes of learning, transfer or policy implementation (13 articles), and also called "official visits" (Attard & Enoch, 2011), study tours (Bok, 2015; Pojani & Stead, 2014, 2015), site visits (Ma, 2017), or city to city visiting (Marsden et al., 2011). Wood (2014a) characterizes study tours as "common practice in which local actors travel elsewhere to see innovation and meet with those in the exporting locality who implemented it" (Wood, 2014a, p. 2655-2656). Ma (2017) and Montero (2017b), in their investigations of study visits offer dissimilar definitions,[2] but suggest that "influential policymakers" participate to "personally observe and experience" programs (Ma, 2017, p. 584).

Conferences and **workshops** appear as drivers of learning (10 articles); however, as with study tours, these events are not the root of empirics. Montero (2017a) theorizes conferences as influential to "build trust, relationships, and collaboration between actors" (p. 63). Workshops are sometimes used as the method of researching learning (Thomas et al, 2018), also in the form of a "serious game" simulating TOD implementation (Duffhues et al., 2014).

Though recognized as influential, empirics and analyses of specific activities, experiences, dialogue, or interactions – and the relative effects of these variables – taking place in learning settings are left unexplored. Some suggest that the destination (i.e., of study visits) is particularly meaningful, mostly due to historical 'success' with various policies - such as the Netherlands for airport master planning (Bok, 2015) or cycling policies (Pojani & Stead, 2015), Bogota for BRT, and London for congestion charging (Attard & Enoch, 2011). While few papers discussed variables, i.e., frequency of visits in Ma (2017) and Walker (2019), others delineate the effects of study visits to include "improved relationships" (Wood, 2015a, p. 217), "helped create consensus and influence public opinion' (Attard & Enoch, 2011, p. 550), and facilitated mutual learning, dialogue and trust among actors (Hysing & Isaksson, 2015), though none of these effects are measured.

Inter-actor relations

Inter-actor relations were identified as the leading driver and barrier in the process of learning (22 papers). This "mediating factor" (Rye et al., 2011, p. 541) emerged from the body of literature in various forms, such as "stakeholder involvement" (Kaszubowski et al., 2018), participation in stakeholder workshops (O'Dolan & Rye, 2012), previous collaboration experience (Hysing & Isaksson, 2015), close ties and collaboration (Pojani & Stead, 2014), multi-level and multi- disciplinary cooperation (Thomas & Deakin, 2017), "constructive relationships between politicians and professionals" (Gray et al., 2017, p. 233), and multiple stakeholders in "lengthy deliberation processes" (Glavic et al., 2017, p.92). The scale of and relationships among policy actors varied between cross-sector, national, local, and intra-organizational levels. In many articles, cooperation between actors

represented the sole driver or barrier identified (9 articles and 4, respectively), indicating a highly instrumental mechanism. Even so, other key descriptors accompany inter-actor relations, suggesting potential sub-mechanisms: "good communication" (Thomas et al., 2018, p.1211) or dialogue (i.e., Glavic et al., 2017; Kaszubowski et al., 2018), trust (i.e., Hysing & Isaksson, 2015; Montero, 2017a), and shared values (Rye et al., 2011; Walker, 2019). Cooperation among policy actors also surfaced concomitantly with organizational characteristics, leadership and group activities (described below).

Conversely, low levels, negative, or poor quality of interaction exposed a primary factor (11 articles), often cited as a barrier. Coded examples include a "lack of public participation" in TOD implementation (Thomas & Bertolini, 2015, p. 558) or "prolonged disagreements" between stakeholders (Wood, 2015b, p. 573). Both papers by Pojani & Stead (2014; 2015) on the transferability of TOD concepts identify this barrier as "cognitive obstacles" in which actors and organizations struggle with "low cultural and ideological receptivity." In a case-comparison study on congestion charging, Hysing and Isaksson (2015) cite that despite the "crisis" of "internal resistance" and the "continuous challenge [for the governing coalition] to agree on the details" of the policy, the coalition finally reached a compromise with additional measures unrelated to the congestion charging scheme (p. 57). As a result, the authors conclude from interview data, the coalition "came out stronger" and internal communication and trust were heightened (p. 57). In other instances, cooperation or agreement among actors could not be achieved. In their "serious game" simulation of TOD in the Dutch context, Duffhues et al. (2014) found the game itself uncovered barriers which "cannot be overcome easily" (p. 17), such as "a lack of incentives for actors to cooperate at the corridor or regional level" (p. 4). The authors attribute the constraint to individual perceptions and lack of coordination (though this is not described further).

Organizational factors

Organizational characteristics, including structure, capacity, and resources, emerged as a significant factor, both a barrier (12 articles) but also as driver (3 articles). For example, Marsden et al. (2011) espouse that an organization's learning culture, especially those characterized by risk aversion, may impact the ability to access information, exchange with "trusted peers," and build networks. May (2015)

concurs, and in his research on implementation of Sustainable Urban Mobility Plans he calls for researchers to "tackle this issue" by "stimulating interactive learning" (p. 10). Relatedly, six papers identify a lack of resources as a major barrier to learning. Human and organizational capacity and resources include constraints for time and finances (Marsden et al., 2012; Pojani & Stead, 2015), lack of structure or systems in place for learning (Marsden et al., 2011; May, 2015), lack of readily available high-quality information (Duffhues et al., 2014; Marsden et al., 2011; May, 2015),imbalanced reward systems for learning (Newman & Bird, 2017), and limited municipal staff expertise (Fink, 2019). Several papers confirm that organizations lacking leadership which encourages learning may stifle future learning (Newman & Bird, 2017), partnership building (Thomas & Deakin, 2017), or policy implementation (Kaszubowski et al., 2018).

Institutional factors

In nine articles, institutional factors included culture (8) and discourse (5). Cultural values of those involved in policy learning processes "impact the acceptability of new ideas" (Rye et al., 2011, p. 541), echoed with others (Gray et al., 2017; Hysing & Isaksson, 2015; Ibsen & Olesen, 2018). Only one author delves deeper into measuring cultural factors. Ashmore (2018) studies the culturally-bound perceptions of transport modes and how these symbolic connotations differ across cultures. He concludes that strong symbolism of dominant mobility cultures (automobility) in many countries influence the mindset and operations of policymakers, and therefore present an obstacle to borrowing more sustainable policies from elsewhere. On the other hand, the *framing* of and discourse around policy problems was highlighted in six articles as a driver for learning. Anderton et al. (2015) describes this "ability to create or ... to reframe" the narrative as a "critical source of political power" and "critical driver of policy learning" (p. 140). Those who discuss this driver also attribute a specific type of actor to this process – non-state experts, often 'policy entrepreneurs', who have "legitimacy and capacity to inspire" others (Montero, 2017; Parkes et al., 2013).

A very hazy factor was that of leadership, identified as a driver (8 articles) but also as a barrier (5 articles), and difficult to place either in institutional or

organizational factors. For example, "an 'innovation champion'" (Parkes et al., 2013, p. 17), "senior management support" (Marsden et al., 2012, p. 918), and "clear leadership from politicians with vision and credible pathway to achieve vision" (Gray et al., 2017, p. 233) accelerated learning processes. In their case study of two partnerships, Thomas & Deakin (2017) observed that "strong and engaged leadership" lead to one successful partnership (p. 45); conversely, ambiguous, disengaged and unsupportive leadership presented a barrier to success in the other partnership.

3.5 Limitations

While this method was designed and conducted in accordance with guidance on conducting literature reviews (Wee & Banister, 2016), it is not without limitations. Using two academic databases constricts the output and excludes some relevant research. For example, the Global South was under- represented in the sample, possibly explained by the selection of journals included in Scopus and Web of Science, which tend to disproportionately originate in the Global North. Similarly, the restrictive search terms, time limits, and inclusion criteria may have overlooked relevant publications, including book chapters and conference papers, for example, Si et al. (2020). This design bounds the search, and thus the results, and does not entirely capture the field of transportation policy studies and the variety of critical drivers and barriers to learning from elsewhere. For example, the role of individual actors in the policy learning process is less represented in general (see Olsson & Hysing, 2012) as are advocacy, activist, and civil society groups in facilitating policy learning, also not captured in this sample.

In the analysis of the articles, using the codebook was also not without challenge and potential limitations. For some fields, a team of three relied on deductive and narrative synthesis; however, the team was able to reach consensus on all codebook fields through modifications of coding instructions and discussion. Many of these issues are inherent in bounded literature reviews and the strength and scope of the findings demonstrate that the process and search protocol were not too great a hinderance. Furthermore, analysis demonstrated that a degree of theoretical saturation (Lewis-Beck et al., 2003) had been reached since main concepts were repeated and no new ones added. Nevertheless, we leave this methodological framework open for future interrogation.

3.6 Conclusions and Discussion: How to open the black box of learning in transport policy?

> *"Policy transfer is a somewhat serendipitous process, dependent on particular actors – those with influence, but also those with enthusiasm, openness to outside ideas and language skills – actually finding out about a new idea." (Rye et al., 2011, p. 541)*

Despite a sustained level of interest and importance of policy transfer and learning in the field of transport, the role of learning continues to puzzle researchers. Since Marsden & Stead's (2011) critical assessment of policy learning and transfer in transport (a review of 13 articles), this review asked if their conclusions still hold: "Remarkably little is understood...about the precise role of learning from elsewhere and its influence on processes of policy reform since no studies have thoroughly linked policy outcomes to learning" (p. 71). Using their conclusion as the starting point, the present paper contributes to the growing body of knowledge in transport policy by: (1) updating the empirical database of transport policy transfer studies, with evidence and observations from 53 studies; (2) examining how learning is conceptualised and measured, with particular attention to drivers and barriers of the process; and (3) offering much-needed synthesis of patterns and insights for future research. The aim here is not to judge the quality of research, but rather glean common conceptualisations, drivers, and barriers of "learning from elsewhere". In the paragraphs below, insights and distinctions are identifed and explained in order to help us understand (new and different) ways to research this topic.

Overall, results from this review reveal some positive patterns. Transportation policy learning and transfer traverse many research contexts, disciplines, and journals, both within and outside transportation audiences. The subject matter continues to gain global interest, with a bias towards European and North American researchers and cases (also a potential limitation, as previously discussed). Leading a range of policy topics are transportation and land use integration (TOD), active transport (especially cycling), and bus rapid transit. Given the long-standing need and urgency for governments to adopt and implement sustainable transport policies (Banister, 2005; World Bank., 1996), this continued interest and policy topics could be anticipated.

However, theoretical approaches used to study policy learning and transfer demonstrate a divide in the transport policy domain, an "interpretive battle" (Gerring, 2001, p. 35) of learning concepts. Despite the range of valuable research aims, cases, and to some extent outcomes within this sample, it remains challenging to confidently draw conclusions as to whether, or what degree, knowledge on learning in transport policy has evolved, since Marsden & Stead's (2011) review. Unfortunately, in the last nine years, the conclusions from their review still hold: we know very little about *how* learning occurs in the context of policy transfer. Is learning too nebulous a concept for a field that gravitates towards standards and algorithms? Rye et al. (2011) point to this concept's particular challenge in the quote above: how to account for serendipity? The *how* seems much more interesting and relevant for building knowledge with regards to the acceleration of sustainable transport goals, new forms of governance, and organizational and institutional innovation and change.

Expand the range of factors to examine in transport policy transfer

Analysis revealed that, on one hand, those involved in transport decision making indeed venture elsewhere in the search of lessons; however, on the other hand, only in rare cases did specific policy outcomes (such as implementation) occur from policy transfer or policy learning. These observations suggest that transferring and applying knowledge from policy transfer activities may require more concerted efforts, both in the practice these activities and in researching them. This finding invites us to explore what interventions or forces might shape the application of knowledge to elevate local action among many and diverse stakeholders involved in transport policy. This set of literature suggests many scales – inter-personal or inter-actor, organizational and institutional. The sample suggests that the learning setting (i.e., networks, conferences, study visits) may be a venue to study interactions and learning processes more closely. Very few articles examined group or collective learning processes within this context, and very few unpacked intra-personal learning processes, such as how one's own knowledge, power, or experience influenced policy outcomes.

Unlocking the potential of transferring lessons learned means critically examining current inter- and intra-organizational and institutional capacity for learning, including leadership, communications systems, and organizational culture. Here we might reflect on how the, often fragmented, cultures and practices of transportation

governance may be influencing the extent of collaboration and coordination efforts. Many authors in this review broadly recognize these forces, however a minority brave the challenge of empirically exploring them. This observation could be interpretted as a latent interest to engage with learning theories and prompts new opportunities to broaden the scope of learning theories applicable to policy transfer and learning research.

Decoupling learning and transfer

Papers in this review often present 'learning' and 'transfer' as an entangled pair, obscuring distinctions between the concepts. Generally, one half of this sample extends priority to codifiable outcomes (i.e., policy implementation) and the other half examines the process, relations, and context. Many articles place learning as central – and not just 'learning', but a variety of types of learning – definitions, operationalizations, or reference to existing seminal work is missing. This fragmentation exhibits a disconnect between research aims and embedded theoretical frameworks.

A step towards developing this, theoretically, might entail pivoting to a singular type, sub-type, or phase of learning. Examples from policy studies literature are valuable here (Dunlop, 2009, 2015; Heikkila & Gerlak, 2013; van Doren et al., 2020) – also specific to transport policy (Glaser et al, 2019). For example, differentiating between the *acquisition of information*, say, during an official visit or study tour, and the *application of new knowledge* through an exhibited change after that study tour may delineate insights about a learning process. Indeed, the concept of learning has many definitions and is studied in many disciplines across the social sciences. However, this presents more reason to experiment with alternative theories and attend to definitions. This strategy may augment our understanding of learning processes required for complex policy change.

Expand our methodological portfolio

While quantitative methods dominate about 90% of transport policy analysis research (Marsden & Reardon, 2017), qualitative methods dominate transport policy learning and policy transfer research (89% in our sample). Several key limitations of the methodological contributions of this literature surfaced and portray opportunities for improvement. A lack of operationalized concept(s)

presented a challenge for this literature; without clarity of what we are measuring, 'how do we know it when we see it?' (Gerring, 2001, p. 43).

We also see a need to incorporate more innovative methodological approaches sensitive to dynamics regarding the learning setting. Coding results show that half of the literature specified specific learning settings and interpersonal, face-to-face activities as drivers of learning – study tours, workshops and conferences – denoting place, travel, or location to play particular roles. Policy scholars have long argued that experiencing a 'policy in action' provides unique insights (May, 1992; Rose, 1993), but limited research has investigated the many variables of these events and experiences, nor their effects. In this review, few papers offer distinctions between these learning settings, presenting them as evidential events. Future research might examine these settings, participants, and their experiences, to further understand, for example, how conferences, meetings, official visits, or study tours influence (or not) the process of knowledge transfer within participants' organizations or networks.

With interpersonal relations and learning settings as central divers, collective learning with a temporal dimension comes to the fore. Many papers in this review undertook small, cross-sectional, retrospective interview samples. Classic learning theorists doubt humans' capabilities of expressing, retrospectively, specifics about what we have learned because learning experiences accumulate as tacit knowledge, which cannot be codified or articulated (Duguid, 2005; Polanyi, 1966). This is especially the case when high levels of knowledge or skills have been achieved and the "expert" may no longer be able to intuit incremental increases in such knowledge or skills (Dreyfus & Dreyfus, 1986). Experimental approaches, with pre-test/post-test evaluation (see Rouwette et al., 2002) or longitudinal process-tracking analysis, incorporating ethnographic work, might valuably attend to temporal dynamics that cross-sectional 'snap-shots' often miss. Furthermore, emphasis is needed on enhanced transparency and scope of interview and document analysis processes (i.e., informant description and recruitment, protocol or question design, and coding). Here we also build on the concerns of Marsden & Reardon (2017) that a lack of engagement with policymakers in this type of research seems a missed opportunity to capture 'on-the-ground' perspectives.

Towards merging the divide

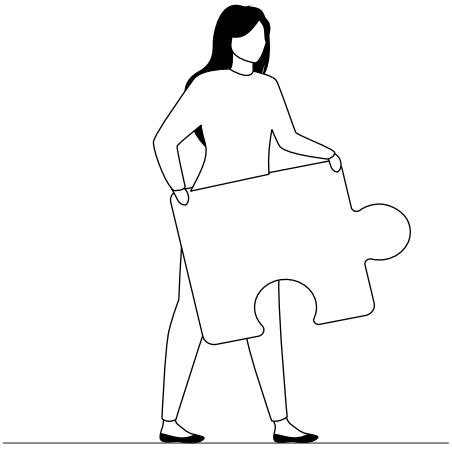
Our analysis of the theoretical approaches in this sample indicates a significant divide in the transport policy domain. One faction frame or structure their research with

the traditional 'policy transfer' approach; the other group examines the 'how', centering on process, relations, and context, making use of diverse theories. While a majority of the former are published in transport journals, a minority of the latter remain in a transport audience, demonstrating an imbalance in the application and dissemination of a particular approach, language, and methodology not only to policy transfer but also to learning. Continuing to apply the framework in attempt to uncover or detail policy learning processes generates at least two risks for the field of transport: one, continued challenge, and perhaps stagnation, with respect to building new knowledge about policy learning and transfer; and two, the promulgation and shaping of a body of research disconnected to realities of contemporary transport governance. The disparity also highlights a perhaps distinctive complication in transportation policy transfer research: how to capture and measure a highly contextual, social process in a discipline that leans towards models and standards? The insights and suggestions previously discussed might allow for a softening of this divide; however, a willingness to experiment, to cross discipline lines, and to coalesce ideologies could further reinforce the softening.

Summary

Findings from this review highlight that we still do not know what learning *through* policy transfer can achieve nor its potential to improve or accelerate the policy process. A key reason for this gap which emerged from the analysis is that learning itself, as an operationalized concept, needs to take more center stage. To do this, we suggest at least three avenues for future research to better understand learning *through* policy transfer in the domain of transport. One, analysis suggests broadening the scope of learning theories while also demarcating clear boundaries between 'learning' and 'transfer'. By examining particular types, sub-types, or phases, learning processes could be better measured. Here, definitions and operationalizations of concepts with discrete methodological clarity may generate more transparent outcomes. Measuring learning can be difficult, however, many examples from the literature exist (for example, see van den Bergh et al., 2007; van Doren et al, 2020; von Schönfeld et al, 2019). These examples also highlight the need to examine particular types or sub- types of learning, as previously suggested.

Two, opportunities are ripe to more finely examine how knowledge in learning settings transmits from individual(s) to wider circles. This dynamic remains conceptually underdeveloped, even in political science (Moyson et al., 2017; Wolman & Page, 2002). Attending to dynamics of place, time, and other antecedents to the learning process with experimental or longitudinal research designs might tease out other factors missing from this review and from the literature in general. These variables are commonly addressed in seminal work on (group) learning and capacity building processes (Argyris & Schön, 1978; Eade, 1997). Finally, though not exclusive from the previous, we suppose that more assiduous cross-discipline efforts to empirically unpack and measure learning processes, especially with existing seminal work from fields such as organizational learning, education and policy studies. Together, these efforts might greatly augment and perhaps accelerate breakthroughs in understanding, explaining, and practicing of sustainable transport policy change.



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Notes

[1]Five of these articles are attributed to one author (Wood, 2014a, 2014b, 2015a, 2015b, 2015c). For entire list of references included in the review, see Appendix C.

[2]Montero (2017) defines study tours as "short visits in which a delegation of people travels to another place to experience something with potential to improve their organisations or places of origin" (p. 336) and Ma (2017) as "face-to-face interaction and knowledge exchange among policymakers when delegations visit a successful demonstration project" (p. 584).