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### From global ideas to local action

*Building capacity to reshape urban transport policy*

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Study visit delegates conversing, passing locals, and riding over  
Het Groentje bicycle bridge.  
*Nijmegen, The Netherlands*

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# Conclusions

Recalling the aim set forth in the introduction, this thesis seeks to provide a fuller understanding of how actors acquire and mobilize knowledge about sustainable transportation solutions, triggered by experiences in other contexts, and how those learning experiences could build strategic capacity. Within the field of transport policy, a main focus in policy transfer thus far tends to emphasize policy adoption, implementation, and, less commonly, negative lessons or failures. The increasing prevalence of the study of policy transfer – as inventoried in Chapter 3 – accentuates the specific need to more deeply understand the role of policy transfer in relationship to broader learning and change processes. To this end, few attempts have been made in the domain of transport. The research in this thesis has sought to respond to these unresolved issues. The overall research question for this thesis was posed:

## **How can learning through policy transfer build strategic capacity to reshape urban transport policy?**

The overarching question was operationalized into five research sub-questions. Each chapter in this thesis examines a part of this question in its own way, yet overall illustrating the multi-level role learning plays in and *through* policy transfer. To maximize insights for the field of transportation, the thesis adopts a mixed method approach and turns to conceptual and operational knowledge from disciplines more advanced in their awareness and development of approaches to assess learning. Each empirical chapter has explored and experimented with alternative theories in order to pursue conceptual development and insights for the transportation planning field. Responding to calls for such cross-pollination in the study of transport policy processes (Marsden & Reardon, 2017), the variety of methodologies used throughout this thesis' empirical chapters explicitly expose collective learning processes, the role of place, emergent dynamics, and underlying conditions of

the learning process. In different ways, each chapter empirically engages with the experiences of “on-the-ground” practitioners involved in the planning decisions and delivery of urban transport infrastructure.

In this chapter, I first provide an overall conclusion (7.1), then, using the structure established in the Introduction, I respond to each chapter’s sub-question (7.2). In this way, salient conclusions of the individual sub-questions’ serve as a compendium of findings that aim to concretely reply to the overall research question. Section 7.3 summarizes the main contributions to the scientific state-of-art on the topic and Section 7.4 offers implications for policy and practice deriving from the research. Then, I provide a reflection on methods (7.5) and the chapter concludes with limitations and directions for future research (7.6).

## 7.1 Overall conclusions

The findings show that learning and knowledge transfer can occur through the process of policy transfer; and that learning can translate into local actions that augment strategic capacity. However, if policy transfer is to be viewed as a learning process with potential pathways for building strategic capacity, the research also shows that the process, and therefore its outcomes, depend on a selection of inputs at several scales of influence. At the level of the *individual*, a key driver was when actors demonstrated agency and viewed policy transfer activities as intentional learning processes; even though their individual motivations for participating differed, an attitude of openness and curiosity laid an important foundation for learning. At the level of the *collective*, the bounded group of participants in the study visits, a key driver was the setting or the ‘site of transfer’, which provided an arena for cognitive, social, spatial, and sensory learning. Participative and dialogic group experiences, for example bicycling as a group and programmed group discussions, empowered individuals by, i.e., clarifying roles and responsibilities, gaining knowledge about sustainable transport systems, and enhancing or activating commitment among participating leadership.

Finally, the research observes that learning through policy transfer emphasizes the *moderating role of organizations and institutions*. Underlying inter- and intra-organizational rules, patterns of behaviors, and norms around communications and

relationships (i.e., within a Department of Public Works or between stakeholder organizations) set a stage for the study visits, including who was invited, points of discussion, and the range of possible outcomes, including potential knowledge transfer and other actions. The dossier of participating individuals represented local socio-political landscapes and local institutions involved in transportation governance – also those posing hindrances, or the “sticking partners,” as one key informant described. Some participants more than others expressed a nuanced awareness of (local) institutional barriers; and while some of these individuals had pre-formed notions of the strategies to overcome barriers, the pathways to overcome them were not necessarily explicit. In this way, the study visits acted as a setting to explore pathways towards convergence, to align or at least acknowledge interpretations, reify roles and responsibilities, and clarify, reaffirm, or augment political capital. What also cannot be ignored, from Chapter 6, is the temporal factor underpinning the socio-political landscape, which illuminates the politically powerful role of “windows of opportunity” (i.e., a newly elected and supportive Mayor or department head, or an imminent multi-billion-dollar bond) that can bolster, synchronize, and legitimize a shift in priorities. In sum, learning through policy transfer represents an organizationally- and institutionally-embedded process that potentially shapes conditions associated with strategic capacity. However, for policy transfer to influence those conditions, the crucial angle of analysis is assessing the drivers of learning, including individual agency, the site of transfer, and the moderating role of (local) organizations and institutions.

## **7.2 Conclusions for sub-questions**

### ***How is learning conceptualized and what conditions of learning are linked to building strategic capacity?***

This chapter contributed theoretical foundations for this thesis by assessing how learning and strategic capacity building are conceptualized and measured in the domains of education, organizational development & human resources, environmental sciences, and business strategy and management. Building strategic capacity can be conceptualized as an integral *part of a larger process*, such as innovation, and predominantly linked to theories in

*organizational learning* and *social learning*. Therefore, investigation is most appropriate at a group or collective level. The ability to recognize the value of new ideas, assimilate and apply knowledge is crucial for learning in within a system, such as an organization. This process acknowledges learning as an intentional attribute of building strategic capacity and the setting or context as either facilitating or hampering that process. However, institutional forces are recognized to determine learning processes (and therefore outcomes) because of, for example, the infrastructure of systems, rules, and routines. Often these are carried through to organizations, where values and norms for learning are reflected in decision making processes. As such, the workplace represents a learning context, but other physical settings can also allow for group processes to form and cultivate conditions surrounding strategic capacity. The analysis also suggests four conditions that enable groups to build strategic capacity: relationships, communication systems, organizational resources, and leadership. On the level of the individual, personal belief, motivation, and agency are associated with learning for capacity building.

Lessons from this chapter provide insights for the case of policy transfer. Policy transfer and building strategic capacity are unified in that they are defined by action-oriented activities. One question left open is to what extent actors involved see learning as an intentional part of policy transfer. To productively influence strategic capacity, learning with regard to policy transfer may involve a constellation of conditions and mechanisms, shaped within a system, that dynamically produce change.

### ***To what degree does transport literature on policy transfer engage with learning and what factors of learning can be gleaned?***

Despite increased interest in and relevance of policy transfer and learning in the field of transport, the role of learning continues to puzzle researchers: we know very little about *how* learning occurs in the context of policy transfer. From 53 articles analyzing policy transfer in transport between 2011–2019, results suggests two key reasons for the conundrum. One, while most papers aim to examine learning, few employ theories or operationalizations to measure the concept. Many papers broadly recognize inter-actor, organizational and institutional opportunities and constraints in the process of learning; however, a minority brave the challenge of empirically exploring them. This observation could be interpreted as a latent interest to engage

with learning theories and prompts new opportunities to broaden the scope of learning theories applicable to policy transfer research. Two, the processes of learning and policy transfer appear entwined and distinctions between the concepts are fogged. Therefore, examining particular types, sub-types, or phases in the learning processes might better capture mechanisms but also outcomes associated with learning rather than policy reform.

A hierarchy of critical factors of learning in the transfer process were also extracted and categorized at several scales from inter-actor to institutional. Most common factors included cooperation among local actors, participation in policy networks, and organizational resources. Many factors played a dual role, depending on context, both driving the process and, in their absence, hampering it. This chapter provides evidence that learning settings or the “site of transfer” (introduced in Chapter 2) are cited as a common driver in the process of policy transfer, however, rarely examined. This finding invites further exploration for interventions or mechanisms embedded in learning settings that might shape the application or assimilation of knowledge (further explored in Chapters 4, 5, and 6). Overall, the chapter’s analysis suggests that transferring and applying knowledge from policy transfer activities may require more concerted efforts, both in the practice of these activities and in researching them. The findings provide further justification for interdisciplinary efforts, especially with seminal work from fields such as education (pursued in Chapter 4) and organizational learning (pursued in Chapter 5).

### ***How do transport professionals learn about sustainable transport policies at the ‘site of transfer’?***

For actors working on bicycling policies, empirical findings demonstrate that group learning settings, primarily conferences and study visits but also policy networks, were most prominent. Here, we are introduced to the idea that this learning sphere, the “site of transfer,” is highly informal. Beyond the findings in Chapter 4, this thesis overall provides strong evidence for the distinct role that these learning settings play as a *convergence of social, spatial and sensory development*. Analysis in Chapter 2 establishes that learning settings, described as physically separate spaces for group development, play a formidable role in capacity building. Similarly, Chapter 3 fruitfully provides reasoning to

examine geographically external learning settings and on the level of social or interpersonal interaction. This finding is also confirmed by the survey results in Chapter 4: indeed, conferences and study tours represent primary professional development venues, at least among transportation professionals working on cycling.

This chapter presents strong evidence that the role of the learning setting contributed to several areas of knowledge formation. Although the thesis demonstrates that gaining technical or codified knowledge (i.e., designs or policy language) was generally less prominent, *situated* and *embodied* aspects played a key role. For example, the conference examined in Chapter 4 represented an opportunity to convene both tacit and explicit knowledge, where an embodied experience (for example, riding a bicycle in the Netherlands) acted as a crucial asset to professional development in this emerging practice. The embodied experience was buttressed by the bicycle itself, acting as a sensorimotor technology to mediate the material and immaterial, to bridge social encounters, and to share emotional or affective states. The spatial characteristics of an “urban cycling environment,” enabled the act of bicycling to be easily and safely experienced. Face-to-face interaction, informal exchange of perspectives, more traditional conference programming and less traditional, guided outdoor bicycling tours highlighted the social and sensory components. The embodied and situated component of learning in policy transfer is further extended in Chapters 5 and 6, and shown to be a particularly relevant mechanism for transferring knowledge. One reason for this, as presented in Chapter 4, is that emotional responses are stored in long-term memory. In this way, embodied knowledge can be a powerful source for learning in policy transfer.

### ***Which mechanisms at the site of policy transfer facilitate knowledge transfer?***

Evidence from previous chapters confirms that to examine the role of policy transfer in building strategic capacity, an inter- or intra-organizational approach is appropriate to capture mechanisms. Results demonstrate four characteristics of policy transfer processes, specifically organized group travel, that may influence the trajectory of knowledge transfer: individual cognitive learning of transport systems, leadership participation, group dynamics, and knowledge integration activities. Evidence from the cases of Denver, Austin, and New Orleans suggests that

individual knowledge of transport systems (and particularly bicycling) was enhanced and in some cases resulted in modified mobility behaviors and uptake of cycling. Moreover, positive affect of the group appeared related to the experiential and relational components of the study tour and situated subsequent interactions between participants, once they returned home. Fundamentally, shared experiences registered frames of mutual understandings, vocabulary, and consensus which over time induced positive working practices. Finally, political and administrative leadership expressed increased confidence in their own future decisions around mobility. It is unknown for how long these benefits lasted, or whether actors reversed into old routines, however the social and experiential qualities of study visits appear to play a role in knowledge formation. These characteristics chime with longer-term capacity-building processes (Brown & Duguid, 1991), where interpersonal and communicative dynamics take precedence over traditional educational aspects.

### ***How can learning through policy transfer build strategic capacity for municipal transportation agencies?***

Building strategic capacity is inextricably linked to learning, both as a determinant and product of an iterative process involving conditions and mechanisms. To build strategic capacity through the process of policy transfer, therefore, requires a learning-oriented approach which is bound by system forces but susceptible to changes in practices and perspectives. Such changes demonstrate a variety of learning outputs, from the level of the individual to the collective, that influence adaptations to conditions of strategic capacity. Findings from the cases of New Orleans and Austin suggest that individual knowledge accumulation, participatory sense-making, and the presence and motivation of leadership were pertinent mechanisms that primarily impacted elements of organizational culture and agency. Especially first-time participants in the process showed an improved and integrated understanding of transportation systems. The study visits enabled sense-making where participants articulated and acknowledged divergent individual interpretations about “what works” in their home context through co-presence, group reflection, and informal social interaction over a sustained period of time. This dialogic process generated enhanced familiarity and

reduced uncertainties, particularly affirming support from leadership and clarifying of roles and responsibilities around policy implementation. Findings associate these outputs of learning with the pedagogical design and delivery of the study visits. At that point in time, the learning setting created an arena for actors to engage in an externalization process (Nonaka & Takeuchi, 1995); an exchange of tacit and explicit knowledge, founded on a distinctly shared experience.

The research also indicates emergent and subtle actions resulting after (and between) study tours that impact the local institutional context. These actions included changes to communicative systems, personnel, collaborations, and accountability that impact coordination and management of bicycle policy implementation. Many actions demonstrate evolved ways of coordinating not previously practiced by these individuals and confirm the importance and relevance of open, trusting communication pathways during the policy transfer experience, that others have noted (Montero, 2016; Wood, 2014).

### **7.3 Contributions to scientific state-of-art**

Findings from this thesis contribute to the scientific state-of-art on policy transfer in three key ways. The first contribution, more broadly, is a fuller picture for how policy transfer contributes to wider learning processes, particularly through knowledge transfer and learning at the (inter-) organizational level. In offering this fuller picture, this research has illuminated what *learning through policy transfer* means, including a rich database (Chapter 2) of clarifying productive constructs, seminal theories, and corresponding conditions to better assess and identify impacts that may not fall into the category of policy outcomes. Building on this database is a critical assessment of nearly a decade of transport policy transfer literature, extending the inventory of Marsden & Stead (2011) and extracting crucial drivers of learning through policy transfer.

Related to the first, the second major contribution is its theoretical exploration and integration of multiple disciplines, such as education and management sciences. The novel “drivetrain” theoretical framework (Chapter 6) synthesizes and integrates a focused collection of concepts and nested, interactive dimensions of learning *through* policy transfer. Propositions from this framework offer a way to elaborate learning experiences and explanatory factors for knowledge transfer. The findings

demonstrate several important facilitating factors, such as actor agency. Actor agency has been long-argued as driving force of policy transfer (Evans & Davies, 1999; Stone, 2004) and the mobilization of policy knowledge (McCann & Ward, 2012). The findings here expose agency as a more fluid and dynamic quality that could be augmented, perhaps constructed by the inter-relationship between social, spatial and embodied experience at the ‘site of transfer’ or learning setting. As a top strategy for promoting sustainable transport (Stead, 2016), this work positions policy transfer as a process ripe with potential to leverage learning, especially given serendipitous and temporal factors such as socio-political shifts. While widely recognized in policy science literature, these “windows of opportunities” appear largely ignored in the current research on policy transfer, an exception being Marsden et al., (2012). This thesis provides a rationale for more closely incorporating such temporal dynamics within policy transfer and learning outcomes.

Another facilitating factor emerging from the findings is the moderating role of (local) institutions. Although many scholars have posited institutional differences as a barrier to policy transfer (Evans & Davies, 1999; Stone, 2012) and policy learning (Rose, 1993; Sabatier, 1988), findings from this thesis contend that, at least in the case of bicycling policies, institutional differences are unavoidable and perhaps, under certain circumstances, such as ‘windows of opportunities,’ might be a good reason to engage with transfer, particularly for the dialogic exchange and promoting connectivity between local agencies (Stead, 2008). This contribution extends the work of others (Rye et al., 2011; Spaans & Louw, 2009; Wolman & Page, 2002), agreeing that institutional differences, particularly at the local level, should be addressed by policy transfer endeavors in a more systematic manner. The interesting question in this case might be whether local institutional barriers are built within or between organizations (i.e., in terms of organizational culture) or if they derive from wider institutional settings, such as rules and norms in the transportation sector.

A third contribution this thesis adds to research is its ambitious empirical focus and methodological innovation, variety and replicability. Chapter 3 offers the

message that greater methodological transparency, actor engagement, and cross-discipline efforts are needed to empirically unpack and measure learning in policy transfer. Many of these findings further substantiate views that prominent policy transfer scholars have put forth (Evans, 2009; Marsh & Evans, 2012), yet for transport policy are rather nascent and untested (Marsden & Reardon, 2017), as also confirmed in Chapter 3. The mixed-method design of this thesis, therefore, addresses these blind spots and contributes innovative applications to the study of learning within policy transfer. In this way, the thesis cumulatively fulfills the entreat advanced in Chapter 3: to diversify the approaches to studying policy transfer in transport policy. Multi-sited ethnographic fieldwork, large-N survey instruments, and longitudinal panel interviews exposed “the multilateral processes of learning” (Wood, 2016) ‘as they happened.’ Moreover, each of these contributions offers the possibility for reproduction and continued refinement. The protocol, interview schedules, and survey scales used in this thesis are detailed in the Appendix and therefore provide an appropriate base from which to repeat, extend, or refine.

## **7.4 Implications for policy & practice**

Aside from theoretical and empirical contributions, a strength of this thesis is its continual engagement with practice. In this section, reflections derive directly from the findings of the thesis to discuss implications for transportation policy and planning practice (for practical applications and recommendations for the practice of policy transfer, see Epilogue). The findings highlight several implications for improving local governance that could be leveraged to augment capacity and willingness to reshape urban mobility policy – admittedly favoring bicycling. While this research is not poised to identify or explain which “best practice” policy solutions are critical, even for bicycling (a topic with substantial momentum, i.e., Buehler & Dill, 2016; Gerike et al., 2019; Nello-Deakin, 2020), these reflections underscore governance practices that intend to shift away from car dependence and towards sustainable modes, an emerging topic of interest in the transport domain (i.e., Legacy et al., 2012; Marsden & Reardon, 2020; Stead, 2016). Evidence from this research suggests a rationale for three main themes for improving local governance around sustainable mobility policy and practice: (re-)framing activities to reduce ambiguities, rethinking political will as collective confidence, and embracing a learning-oriented approach.

### ***(Re-)framing activities to reduce ambiguities***

Evidence from this thesis illustrates the value of informal, multi-actor activities where actors have an opportunity to unite, or at least understand differences between, various interpretations of policy problems and their potential solutions. Whether or not characterized as a ‘study visit,’ this thesis has presented design and delivery qualities of such group experiences that encourage cognitive and social learning through non-judgmental reflection and interaction. As Sabatier describes, one key set of variables in effective policy implementation is the *tractability of the policy problem* – the logic, theory, and understanding behind the problem and how challenging it is to solve (Sabatier & Mazmanian, 1979). For many city administrators and elected officials involved in this research, the vision for and implications of sustainable mobility policy directives, especially around bicycling, remain very hazy. Interviews conducted in Chapter 6 suggest that it was challenging, for this group especially, to place bicycling into broader urban policy dilemmas, even transport generally, resulting in unresolved ambiguities. With vague and contested concepts, such as sustainable mobility, actors often cannot agree on the precise problem(s) and defend and rely on pre-existing rationalities (Radaelli, 1995); this research found evidence of such disparate ‘frames’ around bicycling and its relation to larger transportation issues in the case cities (Chapter 6). What does sustainable urban mobility look like and how does it connect with the many other pressing urban challenges? These were difficult questions for which to formulate a response. Moreover, several interviewees admitted to not fully understanding why they were invited to participate in the study visits, a further demonstration of ambiguity; not only did many find bicycling unrelatable, personally and politically, but their role and responsibilities around bicycling policies were unclear. This haziness is even more fogged by competing political agendas – say, housing or education – that are equally important, urgent, and complex, but are also perhaps more tangible, their solutions perceptible and their effects corporeal. When the value of choices rests on the abilities of decision makers to fully understand the differences between the options, it is very difficult to make a choice when one cannot fully understand or relate to the alternative options (Kahneman, 2011).

Drawing from a study included in Chapter 3’s review, the ability to persuasively reshape policy frames has been regarded as a “crucial source of political power, and moreover as a potentially critical driver of policy

learning” (Anderton & Palmer, 2015, p. 140). It is recommended that policy framing activities pursue a collective learning process, emphasizing positive learning (as opposed to learning from failure) and embracing diverse viewpoints (Anderton & Palmer, 2015, p. 144). Evidence this thesis rather consistently presents suggests that the learning setting can act as a dynamic determinant of the process; study visits, to some degree, incorporate these aspects and could therefore act as an instrumental and conceptual activity for persuasively reframing sustainable transport policy issues. In other words, the situated experience helped modify ‘frames’ that allowed individuals representing various sectors to discuss, experience, and interconnect worldviews, values, and practices. I do not intend to conclude that a study visit is a “cure-all” for lagging political will or impaired states of collaboration or exiguous governance systems. However, this thesis supports a rationale for pursuing policy (re-)framing events with informal learning settings and a combination of activities that enhance familiarity and support collaborative efforts between actors.

### ***Rethinking political will to collective confidence***

Related to the previous point, this thesis has also garnered support for broadening the understanding of one of the fundamental determinants of policy change: political will. One interesting aspect of the cases chosen for this research is that their supportive political landscapes for bicycling and sustainable transport have, thus far, not resulted in a significant shift away from car use. For example, Austin features a decade of progressive bicycle policies, sustained political commitment, and substantial funding towards bicycle infrastructure, however, acceptance has not delivered transformative progress. Many studies aiming to understand barriers of sustainable transport policy argue that political will (often used interchangeably with political support or political leadership) is necessary for adoption and implementation (Aldred et al., 2019; Naumann et al., 2019; Wang, 2018; Wilson & Mitra, 2020). While the findings from this research would not disagree, the evidence casts political will in a new light.

Chapters 5 and 6 show heightened levels of *certainty* (i.e., regarding roles and responsibilities) and *confidence* (i.e., in the project and bicycling policies) among both political and administrative officials in the months after a study visit. Chapter 6 posits that these sentiments emerged from a collective sense-making process during the visits where assumptions were reified and clarified, over a sustained period of several days. This illustrates that characteristics defining political will might materialize within a *social* learning process. The framework presented in Chapter 6 suggests key

mechanisms that possibly generate this collective confidence. For example, verbal affirmations of support, occurring during group reflection, appeared to visibly change the group dynamic. City officials also expressed enhanced knowledge of transport systems and deeper familiarity with their local transport planners charged with improving them – “putting names to faces.” This collegial familiarity appears a crucial source of knowledge and intrinsic motivation for continued, long-term implementation plans, underscores relational aspects of the policy process, and supports the idea of authentic opportunities for intra-sector relationship-building.

This research also appreciates relationship-building as deeply human and therefore situated and sentient. It is difficult to forget the countless observations and vivid and fond recollections from all interviewees the great deal of *fun* experienced during the consecutive days of the study visits, often recalled within the collective context and in tandem with the act of bicycling. It appears that the study visit helped to assemble a particular set of experiences (see discussion of embodied knowledge in Chapter 4). This fun does not denote that the experiences were always pleasant, easy, or predictable. After all, where is the fun in an activity that is *as simple as possible* or does not evoke some hint of challenge, unfamiliarity, or even fantasy? Contrarily, as noted in Chapter 6, I observed a fair amount of tension, dissent, even frustration during and between group discussions; in Chapters 4 and 6, I observed expressions of discomfort while riding bicycles. Before the study visits, some interviewees admitted apprehension and anxiety about riding a bicycle, and international travel in general. It is therefore worthwhile to explore whether the fun was a combined result of these ‘challenges’ overcome, of which enhanced confidence is one logical bi-product. Nevertheless, as a highly social process that typically involves traveling to global destinations, meeting foreign peers, and experiencing unique environments – fun activities, for many individuals – one might be surprised to hear that policy transfer, to my knowledge, is not normally characterized as a fun, but rather a serious endeavor. This research shows that there might be room for both.

### ***Embracing a learning-oriented approach to urban mobility policy***

The findings from this research illustrate the value in embracing a learning-oriented approach to urban mobility policy. As demonstrated in Chapter 6, policy transfer represents only one part of a larger, continual, and dynamic

process of change. To build local institutional capacity for deep transformation in mobility policy, as this thesis concludes, the transfer of policy solutions alone cannot be relied on to trigger or deliver the scale of reform required. Even more, this research gathered evidence that transferring solutions was not the intention in the first place. Many planners and officials in this research expressed pride in the unique qualities and culture their cities offer and that the copy-paste approach ignores their exceptional characteristics and was therefore not a desirable pathway. A learning-oriented approach more appropriately appeals to the ethos of city building endeavors as it empowers cities to discover and co-produce their own pathways to achieve policy goals.

Recognizing the multitude of transition pathways, the findings from this thesis provide guideposts for embracing a learning-oriented approach from within the system of influence. In particular, this research supports a rationale for directing city resources to human capital that structurally invests in local knowledge management, including the conversion and assimilation of new ideas and knowledge from “the outside” about sustainable mobility policies and practices. A first step in practice would be funding to enhance both technical capacity (inter-organizational) but also coordinative capacity (intra-organizational). Technical capacity, the planning and designing of active transport infrastructure, commonly lays within the Public Works Department. Chapter 6 posits that Austin’s allocation of resources to human capital – a dedicated team of bicycle and pedestrian planners and designers – laid important groundwork for producing key planning documents, participating in city-to-city learning programs, fostering intergovernmental and council relations, and constructing on-street improvements. A key transition point was recognizing that these tasks were well beyond the scope of traditional DPW workplans; the team was subsequently transferred from the Department of Public Works to Austin Transportation Department. This allowed the team to strengthen coordination with numerous divisions and departments which interface with the street. We see a similar trajectory with New Orleans, but an alternative solution: officially designate a mobility safety team within DPW (technical capacity) and increase coordination capacity within the Mayor’s Office. This suggests a specific role for and benefit of strengthening intra- and inter-organizational coordinative capacities for integrating and managing knowledge. While comprehensive re-organizations of public agencies may not be available to many cities, these two cases demonstrate creative approaches to augmenting capacity from within the institutional system of influence. Such capacities structurally support collaboration and local innovation and can act as an antecedent to building strategic capacity (Chapter 2).

This particular reflection builds off escalating recent trends of mobilizing city experiments, tactical urbanism, living labs, “quick-build” projects, and other forms of “socio-technical innovation” (Sengers et al., 2019) in the mobility space that aim to simultaneously “disrupt and transform a particular institutional order” (Savini & Bertolini, 2019, p. 832). While these practices could be described as learning-oriented – ideally, the tactics explore, at least temporarily, avenues ripe for systemic change (Bertolini, 2020) – they are also critiqued for “feeble or non-existing links with...social and organizational learning processes” (Bertolini, 2020, p. 16) and lacking transformative capacity (Castán Broto et al., 2019). This implication also resonates in a finding from our study on street experiments in 55 US cities during the COVID-19 pandemic (Glaser & Krizek, 2021, see abstract in Appendix); empirics suggest that higher levels of intra-departmental and multi-sector coordination enhanced feasibility of street experiments. This provides further rationale that incorporating a learning-oriented approach to urban mobility rests on investing in learning itself – both in terms of financial authorization but also institutional legitimacy.

## 7.5 Methodological reflection

The ethnographic methods executed in this project (Chapter 4, 5, 6) were not without challenge and it seems appropriate to reflect on the challenges, including the efforts to minimize bias. A first reflection regards the semi-structured interviews (Ch. 5 and 6) and ethnographic fieldwork (Ch. 4 and 6), employed to “follow” actors, to record and interpret their activities and interactions during their learning processes (Wood, 2016). Without previous pedagogical or applicable experience in ethnography, prior to fieldwork, I followed a PhD short intensive course (8 weeks) on the approach, its origins in anthropology, and its many applications. During this course, I became aware that the ethnographic fieldwork involved in my research was ‘non-traditional’ in the sense that its duration was very short and intense, lasting several days to a little more than a week at a time. Nevertheless, each study visit entailed regional (within the Netherlands) or international travel (within the EU), 12- 14-hour days with the groups, and – yes – a lot of bicycling. While informative and engaging, this course did not necessarily prepare a researcher for his/her own unique ethnographic research – including the

arduous mental processing, physical labor, and time involved in preparing, undertaking, and then analyzing ethnographic fieldwork.

Ethnographic fieldwork and interview data collected for Chapters 4, 5, and especially 6 were immense. In the field, notes were re-interpreted, transcribed, organized, and systematically catalogued on a daily basis. Fieldwork undertaken in Chapter 4 acted as a preparatory “learning-by-doing” exercise (Kolb, 1984) for the more extensive fieldwork conducted for Chapter 6. In this way, the protocol created for Chapter 4 was refined for fieldwork occurring for Chapter 6. Nevertheless, fundamental differences were premeditated between the fieldwork variations. When observing unfamiliar conference participants (Chapter 4), it was noticeably easier to quietly retreat into the “background,” enabling more conscientious efforts to observe, interpret and take notes. Conversely, during fieldwork for Chapter 6, the group size was small enough that my role as researcher was overt – as was my identity as I introduced myself to each group, an American urban planner based in the Netherlands, conducting research on policy transfer. Therefore, preparatory efforts of creating observation protocol were helpful, but it was also necessary to premeditate unavoidable personal interactions with those I was observing and gauge ethical concerns. Since I had interviewed a vast majority of the delegation beforehand, I was diligent to heed confidentiality of informants’ perceptions and experiences. Furthermore, a great amount of consideration and in-the-moment reflexivity safeguarded against interference in their (group) learning process. To other (American) individuals, informants or otherwise, my identity was interesting and roused many, sometimes personal, questions and informal discussions, including about the topic at hand – bicycling. In this way, I experienced what Pineda Revilla (2020) refers to, in her work on ethnographic action research (EAR), as the “thin line” between ethnographic researcher and actor, or perhaps in this case, contributor to an informant’s learning process. In these instances, I was cognizant to navigate conversations with honesty and authenticity, answering their questions, but also to refrain from conversations or explanations that could influence the goals or outcomes of the research.

A final point of reflection includes the attention paid to reducing bias. Numerous interviews with key informants months apart (Chapter 6) entailed scrupulous preparation and organization. Scheduling interviews with executive-level city staff and elected/appointed officials also presented obstacles for timely interviews.

Preparation for each interview included reading over fieldnotes and previous interview transcripts, to ensure reliability but also to limit temporal bias, a challenge to all enquiries about past personal experiences (Lewis-Beck et al., 2003). When informants do not recall details and facts correctly or provide personal, biased interpretations of their perceptions about changes in beliefs rather than their actual learning at that point in time, temporal bias can present or unconsciously reshape responses (Lewis-Beck et al., 2003). Furthermore, as discussed in more detail in Chapter 5, many informants have attained a level of expertise in their profession which generates challenges around self-reported learning (Dreyfus & Dreyfus, 1986). These potential biases were duly considered and minimized through the interview schedule series; for example, detailed questions were not provided beforehand, allowing for a natural conversation, and questions were designed to elicit perspectives about learning processes both individually but also regarding other individuals in the group. In this way, triangulation between informants, as well as fieldnotes, could be assessed. A final note on minimizing bias in this research on learning would not be complete without addressing interviewee and interviewer bias (Freeman, 2007); in other words, consideration for any favoritism or distortion in the perceptions introduced could disproportionately advance overly positive information, and thereby bias the findings (Lewis-Beck et al., 2003; Yin, 2003). Mostly a concern for data collection in Chapter 6, this bias was minimized through conscious efforts of awareness, question framing and re-framing, and prompts and probes for elaboration with attention to my tone and, in the case of video or face-to-face interviews, facial expressions and active listening techniques.

Despite challenges, the fieldwork and interviews undertaken for this research project brought newfound perspectives in the study of policy transfer. My research suggests that the study of policy transfer practice, lest learning therein, may well be incomplete without the incorporation of qualitative methodological designs, in particular the very personal insights and thick description that in-depth interviews and ethnographic fieldwork proffer. At the same time, it is also apparent that longitudinal approaches (Ch. 6) might hold the most promise to truly unravel learning outcomes; clearly, results from Chapter 6 fruitfully extend and refine the findings from Chapter 5. This is not to say that qualitative research using retrospective techniques (Ch. 5)

hold less value, but this research demonstrates their limitations to explain learning in the context of policy transfer. A further benefit of engaging in ethnographic fieldwork (i.e., Chapters 4 and 6) is its potential for continuous interaction between research and practice, which, for the right person, can also be highly rewarding from an intellectual and professional perspective. By “following” the groups through the study visits, I feel appreciative for being given the chance to witness the “realities on the ground” and to document their learning process (Marsden & Reardon, 2017, p. 245). The experience has given me a deeper appreciation for contested planning as a “collective effort” (Healey, 2006) and the struggle to reshape urban mobility policy.

## 7.6 Limitations and future directions

Since specific limitations are addressed within each of the previous chapters, this section synthesizes and pairs themes with potential avenues for future research. For starters, there are inherent challenges in measuring the concepts this thesis addresses, especially (social or collective) learning, an area of debate for decades (Polanyi, 1966), as also shown in Chapter 2. The conceptual frameworks this research has applied intended to capture many variables of learning processes, as well as relationships between those variables (Chapter 5 and 6). It is important to note that this thesis has both identified mechanisms and conditions of learning processes through its empirics, but also more widely contributes a working theoretical framework (Ch. 6). This research is not yet poised to confirm nor explain the relative importance of the conditions and mechanisms; however, it offers a foundation for which other researchers can test, explore and refine those variables, both within other policy areas of interest and other contexts or learning settings.

With that backdrop, a first important set of nested limitations to address in this thesis is the constrained representation of its case-within-a-case approach. Case study research designs pose concerns for external validity and generalizability, due to the unique context of the research. To start, this research investigates a certain strand of policy transfer practices (organized group travel) around a singular policy area of interest (bicycling). With support from Chapter 3, which provides a catalogue of transport policy areas, the present research offers a multitude of cross-case comparison opportunities to investigate how the processes of learning unfold within *other* relevant and increasingly circulated transport policies, for example, congestion charging. Here, the question may arise: to what extent do we see similarities or

differences in the learning processes or learning settings with congestion charging policies compared to bicycling? A key finding in my research is that the embodied aspect of cycling in a ‘matured cycling environment’ (the learning setting) invokes knowledge formation, through the combination of spatial, social and sensory development, all of which are argued as highly relevant for the case of bicycling. It would be rather interesting to explore policy areas which do not necessarily contain such apparent spatial, social or sensory implications, such as congestion charging.

Relatedly, this research limited empirics to examining organized (group) travel in the form of conferences and study visits, but other types of learning settings are ripe with potential for future study. Chapter 3 is again useful here to identify settings and factors involved in the process of policy transfer. For example, policy networks are often referred to as essential for learning in transport policy, though rarely examined (see Ch. 3). Pivotal work in the policy and geography domains are a valuable point of departure (Bulkeley & Betsill, 2005; Stone, 2004), and novel applications in transport are emerging (Lawer, 2019). In a European context, where policy transfer manifests as a goal in many transnational projects, it would also be interesting to compare the mechanisms found in this research on a transnational scale where many different cultures, languages, and geographies intersect.

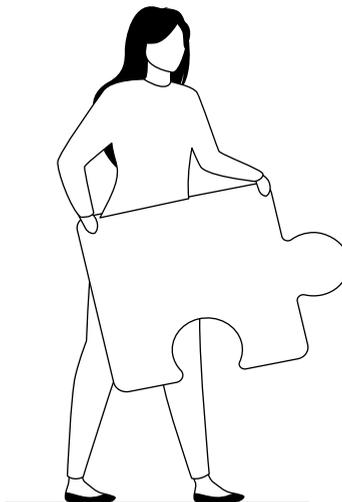
Additionally, this research sets the stage for further exploring a diverse selection of in-bound and out-bound (geographical) contexts. Empirics in this project focused on recipient (or ‘importer’) perspectives from U.S. practitioners, and exemplary practices from “urban cycling environments” in the Netherlands and Spain (Chapters 5 and 6). While one could expect the arising issues and findings transferable to other Global North contexts, perspectives and experiences from the Global South – both as recipients and exemplars – elude this research and are, generally, under-represented in policy transfer literature (Chapter 3). A research agenda confronting this gap in the sustainable transport domain has recently been outlined (Pojani, 2020). In terms of the out-bound, this project has represented exemplary or “best practice” contexts already on the global stage of policy transfer, i.e., “matured urban cycling environments” (Nello-Deakin & Harms, 2019), namely in the Netherlands, but also more advanced “starter cycling cities” (Silva et al., 2019) such as Seville (Spain) (see Chapter 5). One might ask, does best practice

anointment influence the process or mechanisms of learning? Or do performance indicators, such as level of cycling participation, influence learning through policy transfer? Therefore, on one hand, investigating the role of geographical context or international travel could be of interest to future studies in policy transfer. On the other hand, a comparison of international and domestic learning settings combined with policy performance indicators could isolate or prompt new variables to consider.

Another area worthwhile of investigation is two specific segments of actors largely ignored by this research: study visit hosts and moderators. In regards to the former, Chapter 4 suggests that it was often the Dutch practitioners who were positioned as “experts” in the conference’s “informational infrastructures” with 78% of sessions featuring at least one Dutch practitioner. As “transfer agents” (Stone, 2004) or “policy entrepreneurs” (Mintrom, 1997), they do appear to play a specific role in fostering the movement of ideas and policies by bringing legitimacy to the policy models they underline. However, as Dreyfus & Dreyfus (1986) argue, those who have achieved expertise are challenged to critically reflect on their own levels of knowledge attainment. While these individuals might impart knowledge or at minimum inspiration, what is the “ecosystem of expertise” (Brand & Karvonen, 2007) within global platforms of policy transfer in transport? And how do those anointed as experts contribute to building capacity in other contexts? One area related to this, the other segment missing from this research, is the unknown but distinct function of moderators who, during the study visits analyzed in Chapter 6, appear to play a prominent position in the collective learning process. To some extent, these individuals acted as unbiased but authoritative knowledge providers and hosts, sometimes as ‘translators’ between the in-bound and out-bound context. However, they also acted as facilitators or elicitors during group reflection meetings. The research in this thesis leaves room for better understanding their role in the learning process and how that role compares to the ‘exporting’ or ‘expert’ host.

A final direction for future investigation is one ultimately surfacing in the last chapter and as a significant finding in this thesis: the moderating role of (local) institutions. As described in Chapters 2 and 3, empirical endeavors to understand learning require theories, operationalizations and isolation of variables that take into account the complex, sinuous, and longitudinal nature of learning. Accounting for contextual determinants, such as institutional norms and values, and holding constant innumerable control variables are inherent challenges in the study of learning

(Freeman, 2007). Seminal theories on learning, not incorporated in this thesis, could offer valuable insights, i.e., organizational institutionalism, expansive learning theory, actor-network theory, and learning theories in governance and urban planning. More recently, useful efforts with regard to institutional learning theories include Pahl-Wostl's (2009) framework for analyzing adaptive capacity (which was included in Chapter 2's review). Additionally, Schmitt & Wiechmann's (2019) offers perspectives for how governance theory can inform planning (see pages 27–28 for institutional learning in governance networks). Their ultimate recommendation is expanding the debate on cross-sectoral coordination and an improved understanding of flexibility of institutions within governance systems (p. 29). One next step in this direction could be combining tools such as institutional mapping (Aligica, 2006) with policy transfer 'interventions'. Chapters 5 and 6 offer additional variables to begin to untangle learning at various levels and explore the extent to which learning impacted institutional issues such as power structures, local institutional differences, and other attributes of governance. The legacy this thesis offers in this regard is the integrated theoretical framework and propositions advanced in Chapter 6 which are intended to stimulate further dialogue, derivation, and application. With fieldwork protocol and interview schedules attached (other data available upon request), the thesis furnishes the possibility of replication and further refinement.



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