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Cycling for all?

A feminist analysis of the Tokyo Bicycle Utilisation Promotion strategy

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2021 FFJ/Michelin Foundation Fellow

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Cycling for all ? A feminist analysis of the Tokyo Bicycle Utilisation Promotion strategy

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Abstract

The Japanese cycling culture is unique insofar as women constitute the majority of cyclists, a pattern rarely observed in Western countries. Past research on the barriers to women cycling has identified cycle lanes and paths as a solution to support women cycling. Gender inclusive cyclist profiles have also been related to greater gender equality, as domestic and care tasks would be incompatible with cycling. Tokyo does not follow this pattern: only 1.6% of the road network displays some form of cycling infrastructure, and cyclists often share the space with pedestrians, may it be on the footpaths or on narrow roads. Moreover, Japan still suffers from strong gender inequalities, and the vast majority of domestic tasks are still taken up by women.

Cycling has been left aside by policymakers until the adoption of the national Bicycle Utilisation Promotion Plan in 2018, quickly adapted into a local plan by the Tokyo Metropolitan Government in 2019. This working paper uses a feminist policy analysis framework to analyse Tokyo's current bicycle strategy, the goal being to investigate whether policymakers addressed the gendered nature of this mobility practice, and the inequalities associated with it. This analysis is enriched with secondary data and interviews conducted with key stakeholders in cycling promotion and gender equality activism in Japan.

Three key narratives are identified: one about the average cyclist and cycling trip according to policymakers ; another about the risks posed by the current negotiated cycling practice, and a final one about the need for a strict separation of cyclists from pedestrians. These narratives are critically assessed ; alternative, feminist narratives are then outlined using secondary data and stakeholders' contributions in interviews.

Keywords: bicycle, Japan, gender, cycling, women, mobility, transport policy

Summary

EN : This working paper uses a feminist theoretical framework to analyse cycling policies currently being implemented in Tokyo. Using secondary data analysis, policy analysis, and stakeholder interviews, the author identifies and deconstructs three narratives found in the bicycle promotion strategy. She then uses secondary data and stakeholders' contributions to suggest alternative, more gender-inclusive narratives.

FR: Ce document de travail utilise un cadre théorique féministe pour analyser les politiques vélo actuellement mises en œuvre à Tokyo. L'analyse du discours tenu dans les plans vélo disponibles est enrichie par l'analyse de données secondaires, ainsi que d'entretiens d'acteurs. L'auteure identifie et déconstruit trois récits présents dans ces plans vélo. Elle utilise ensuite les données secondaires et les contributions des parties prenantes pour suggérer des récits alternatifs, plus inclusifs en termes de genre.

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Introduction

Japanese cities are cycling cities: the bicycle is used for 19.7% of commuting trips in Tokyo, 21.1% of trips in Kyoto, and 27.9% in Osaka (TMG 2021). Yet, this practice has been close to entirely overlooked by policymakers until very recently. In the early 2000s, Japanese transport plans actually considered cycling and walking as a single transportation mode (Hyodo, T.; Suzuki, N.; Takahashi, K. 2000), and some nationwide person trip surveys did not even present cycling as a separate category in the modal split (e.g. MLIT 2007). Following this logic, very few steps were taken to adapt the public space to cycling: the whole country of Japan counts less dedicated cycling lanes than the city of London alone (Kidd, Byron 2014). Yet, cycling is one of the key modes of transport for everyday mobilities.

The Japanese cycling culture is also specific insofar as women constitute the majority of cyclists. Women remain strongly underrepresented among cyclists in most Western countries (Pucher, John; Buehler, Ralph 2012). In London, for instance, 70% of frequent cyclists are men (TfL 2017) ; in New York, only 20% of cyclists are women (Pucher and Buehler 2012). Yet, in Tokyo, 57% of everyday cyclists (Goel, Rahul; Goodman, Anna; Aldred, Rachel; Nakamura, Ryota; Tatah, Lambed; Garcia, Leandro Martin Totaro; Zapata-Diomed, Belen; de Sa, Thiago Herick; Tiwari, Geetam; de Nazelle, Audrey; Tainio, Marko; Buehler, Ralph; Götschi, Thomas; Woodcock, James 2021) are women. Past research has related women's cycling practices to two factors: first, women would be more likely to cycle when high quality infrastructure is provided ; this is not verified in the case of Japanese cities, where cyclists tend to share the footpath with pedestrians, or to ride on narrow residential roads shared with cars and pedestrians. Second, women would be more likely to cycle when domestic tasks and care-related trips - transporting children for instance - are more equally shared between men and women. This is not the case in Japan either: the country is still marked by stark gender inequalities (Miura, Mari 2012, Shirahase, Sawako 2014), and women conduct the majority of domestic trips in Tokyo (TMATPC, 2018). Cycling in Japan is also associated with the image of the *mamachari* - literally mom's bicycle - a unique vehicle designed for women to carry children and groceries (Steele, M. William 2012). All in all, the Japanese cycling culture appears uniquely gendered: rather than being allowed by greater gender equality (Boterman, Willem R. 2018, Prati, Gabriele 2018), cycling seems somewhat correlated with structural inequalities and stereotyped gender roles.

In June 2018, the Japan Ministry of Land, Infrastructure, Transport and Tourism adopted the Bicycle Utilisation Promotion Plan (MLIT 2018), a new national framework to promote cycling and guide the development of local bicycle promotion plans. This plan constitutes the first overarching bicycle promotion strategy adopted at the national level, encompassing all dimensions of the topic: infrastructure development, education, and safety. In 2019, the Tokyo Metropolitan Government (hereinafter referred to as TMG) adopted its own Bicycle Utilisation Promotion Plan and revised its bicycle safety plan and bicycle traffic space improvement plans

accordingly. This overarching bicycle promotion plan was revised in 2021 to answer the COVID-19 outbreak (TMG 2021).

This working paper analyses Tokyo's first bicycle promotion strategy in the context of this specific gendered cycling culture. The choice has been made to focus on the Japanese capital because it was the first city to draft its own bicycle promotion plan after the adoption of the national plan, and because it very recently revised its cycling strategy to account for the challenges entailed by the COVID-19 pandemic (TMG 2021) - many of which have been born by women (Shirahase, Sawako; IFRJ-MFJ 2021). Using a feminist theoretical framework, the author will deconstruct three narratives, identified in the policy documents that constitute the Tokyo Metropolitan Government's cycling strategy.

The author's goal is not to present the narratives developed by policymakers as wrong ; rather, she will argue that they all represent one way of looking at issues that could have been framed in more inclusive ways. It will be shown that an overlooking of gender - understood as an unequal power relation leading to inequalities - and of women's everyday mobility experiences has led to the adoption of a strategy that might not benefit them in the same way it will men. The author will suggest that the pro-growth, care-blind biases identified in the policy are in no way unique to cycling policy, but underline policymaking in Japan ; rather than beliefs held by individual policymakers, they relate to norms embedded in institutions. After analysing these three narratives, the author will outline alternative, gender-aware narratives. These alternative narratives will be developed analysing secondary data, and using the discourses of key stakeholders, collected through qualitative interviews. Following Akyelken (2020), the author will underline one key takeaway: transport planning needs to engage with the broader gender inequalities within society to be truly inclusive.

This piece is a working paper: next steps would imply confronting policy discourses to those of women who cycle in their everyday life, a piece of the author's research project that had to be postponed due to the pandemic. Women's voices are echoed here by referring to exploratory interviews conducted with cyclists in 2020, as well as interviews with two feminist elected representatives who agreed to be interviewed by the author.

While this work focuses more specifically on women's cycling mobilities, the author wishes to acknowledge that gender identities cannot be reduced to the categories of 'men' and 'women'. People who do not identify as 'men' or 'women', as well as trans individuals, face different power relations that shape their mobilities (see Lubitow, Amy; Carathers, Jadee; Kelly, Maura; Abelson, Miriam 2017) ; those call for specific approaches, and are beyond the scope of this paper.

1. Literature review

Women remain strongly underrepresented among cycling in most countries (Pucher, John; Buehler, Ralph 2012, Goel, Rahul; Goodman, Anna; Aldred, Rachel; Nakamura, Ryota; Tatah,

Lambert; Garcia, Leandro Martin Totaro; Zapata-Diomedes, Belen; de Sa, Thiago Herick; Tiwari, Geetam; de Nazelle, Audrey; Tainio, Marko; Buehler, Ralph; Götschi, Thomas; Woodcock, James (2021). Past research has endeavoured to understand the barriers to women cycling so as to guide the drafting of inclusive cycling policies. Two key results emerged: women would not cycle as much as men because they would be more risk-averse, and because they would have complex, chained trips due to unequally shared domestic responsibilities (Ravensbergen, Léa; Buliung, Ron; Laliberté, Nicole 2019). As a consequence, women's cycling would be best promoted through the delivery of high quality infrastructure, and in gender equal contexts.

This second argument points to a link between gender equality and women's mobilities, including transport mode choice. Prati (2018), for instance, has shown that time spent on domestic tasks is negatively correlated to bicycle use in Europe. Sersli et al. (2020), Ravensbergen et al. (2020) and Bonham and Wilson (2012) have shed light on the specific barriers associated with cycling with children or for domestic tasks. However, the processes through which cycling may be considered appropriate for domestic trips are still little understood. And indeed, there are few places in the world where that is the case: only the Netherlands and Japan display such a household-serving cycling culture. These two countries differ entirely in terms of gender equality: The Netherlands rank 31st on the Gender Gap Index, while Japan ranks 120th out of 156 countries (WEF; World Economic Forum 2020). This suggests that the processes that relate cycling mobility to gender relations are complex, context-dependent, and by no means linear.

In face of this complexity, past research has focused on the infrastructural dimension so as to identify operational principles that could be readily applied by policymakers. These works - almost exclusively based on Western case studies - have shown that women display a greater concern for safety than men (e.g. Garrard, Jan 2003, Emond, Catherine R.; Tang, Wei; Handy, Susan L. 2009, van Bekkum, Jennifer E.; Williams, Joanne M.; Morris, Paul Graham 2011). Providing secured cycling lanes would be the key solution to overcome this barrier (Misra, A.; Watkins, K. 2018, Mitra, Raktim; Nash, Sean 2019). This is the most common approach to women's cycling mobility today: providing cycling lanes would be beneficial to all cyclists, but particularly to women. Yet, it appears that infrastructural delivery might not be enough: Aldred et al. (2016) have shown that even when cycling modal shares increase following infrastructure improvements, the sociodemographic profiles of cyclists do not necessarily diversify.

How, then, can policymakers engage with the complex links between gender and cycling practices, beyond infrastructure provision? Feminist research on women's mobilities in general - beyond cycling - provides an interesting departure point. First, it has been shown that unequal power relations leave women with fewer resources, while these resources are necessary to take advantage of mobility opportunities. Recent works have explored the norms governing the sharing of resources at the household-level, and their impacts on women's mobilities (Uteng, Tanu Priya 2009, Akyelken, Nihan 2013, 2020). In Pakistan, Cook and Butz (2018) showed that, given limited household financial resources, women tend to privilege their husband's and son's mobilities over their own. Studying the gendered impact of an infrastructural project in Turkey,

Akyelken (2013) showed that low human capital and social disapproval of their mobility limited women's capacity to use a new highway. This provides an important takeaway for policymakers: not all individuals take advantage of a new infrastructure in the same way. Inequalities that exist at the level of society have a concrete impact on individuals capacity to seize the opportunities offered by policymakers. As a result, gender-blind policymaking will tend to benefit the most privileged members of society: men.

Indeed, everyday decisions relating to mobilities are taken in a wider economic and political context (Isaksen, Lise Widding; Näre, Lena 2019). For instance, Näre and Wide (2019) have shown how childcare policies contribute to shaping women's "local loops of care", that is, their household-serving, chained everyday trips. Akyelken (2017) explored the link between labour market practices and women's commuting patterns. All in all, these research works show that women's mobilities cannot be fully understood without understanding the 'rules of the game' that apply to them: what are their work-related constraints? Are they the same as men? How do these constraints impact the temporality, scope, mode of their trips? As women tend to still be in charge of childcare, how does the State support childcare? How do these policies impact women's time constraints, and in turn, their transport mode choice? Childcare at home may be subsidised, or public day cares may be provided outside of the home; how does that shape women's spatial mobility? As argued by Akyelken (2020) "The increasingly blurry divide between everyday spaces of women, especially those concerning work and family, shows that transport policy is extremely interwoven with the broader policies, such as social and industrial policies that drive structural inequalities". Engaging with this wider political economic context is necessary to anticipate the different impacts certain policies may have on women and men.

Moreover, the patriarchal gender norms present in society influence the policymaking process, from social policies to urban policies. Ideational policy analyses (Campbell, John L. 1998, Bradford, Neil 2016) explore how the meanings held by policymakers and embedded in institutions influence the content of policies and their effects (see Akyelken, Nihan; Banister, David; Givoni, Moshe 2018 for an application to transport policy). For instance, Yamaura's (2020) analysed the policies and political discourses about childcare provision in Japan to highlight the "cultural logics" underpinning these policies. She showed that childcare provision has been related to national survival and economic dynamism in an ageing country, rather than with women's emancipation. This has a direct impact on the policies adopted: those were not designed to support fathers' involvement in childcare and an equal sharing of care-related tasks, but rather to promote mothers' involvement on the labour market.

Approaches that account for structural gender inequalities are not common in cycling research, even less in cycling policy. The objective of this working paper is to conduct a feminist analysis of a detailed bicycle promotion plan to explore whether accounting for gender - understood as a power relation - would lead to the adoption of a different cycling promotion strategies.

2. Setting the scene: gender and cycling in Tokyo

This work will discuss cycling policy adopted in the Tokyo Metropolitan area, hereafter referred to as “Tokyo” - indeed, Tokyo is not a city, but a Metropolis composed of 23 wards and 26 towns and cities. This part will set the scene, and present available data on both cycling and gender inequalities in Tokyo.

The Tokyo Metropolitan area’s transport system is structured by trains. Rail-based public transport (local trains or metros) represents 38% of all trips conducted each day within Tokyo (Figure 1). Walking (28%) and cycling (16%) are the second and third most commonly used transport modes in the Metropolis. This urban area thus very much relies on alternative modes, and private cars are only used for 11% of all trips (Tokyo Metropolitan Area Transport City Council, 2018). The modal split varies very much depending on the trip motive. Active modes (walking and cycling) are most commonly used for trips that are related to “private-affairs”, while rail-based public transport is used for 65% of home-work commuting trips. The private cars is mostly used used for trips related to work, may they be linked to the home or not (Figure 1).

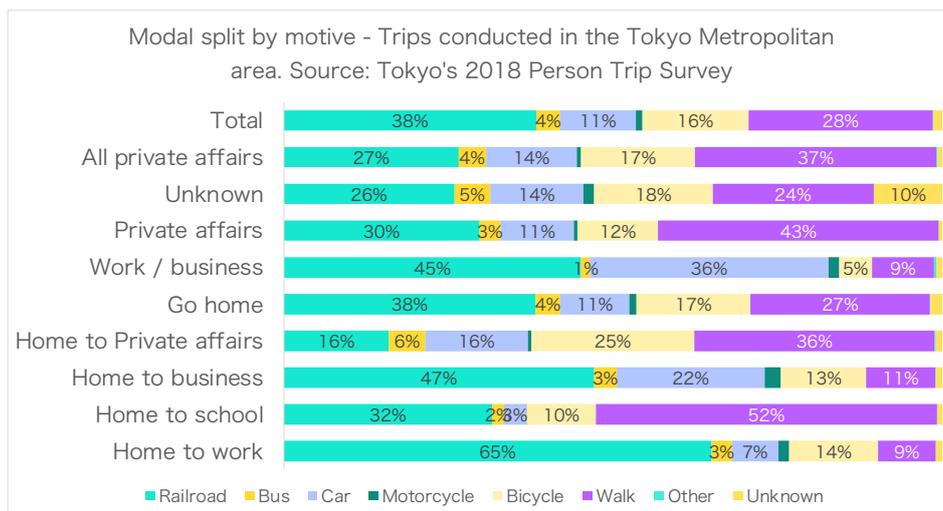


Figure 1 - Modal split per motive in the Tokyo Metropolitan area

The Tokyo Metropolis presents a cycling modal share of 16% (all trip motives). The 23 special wards appear to be the core of cycling Tokyo, as modal shares reach above 30% in certain neighbourhoods in the East (TMTPC 2018 ; Figures 2 & 3). Spinney (2020) underlines that, in most cities of the world, cycling journeys tend to be related to work. Tokyo is an exception on that account : the greatest share of these cycling trips are ‘home to private affaires’ trips (41%¹) (see Figure 4). Adding those trips that are related to ‘private affairs’ only (19%), it appears that 60% of bicycle trips are related to ‘private affairs’, a broad category in which all household-serving trips fit. One may imagine that these trips are conducted close to home. Indeed, in Tokyo, 90% of

¹ This percentage is computed excluding « Go Home » trip motives, as the motive of the trip before returning home is unknown

cycling trips are under 5 km, and more than half of all cycling trips are below 2 kilometres (TMG 2021).

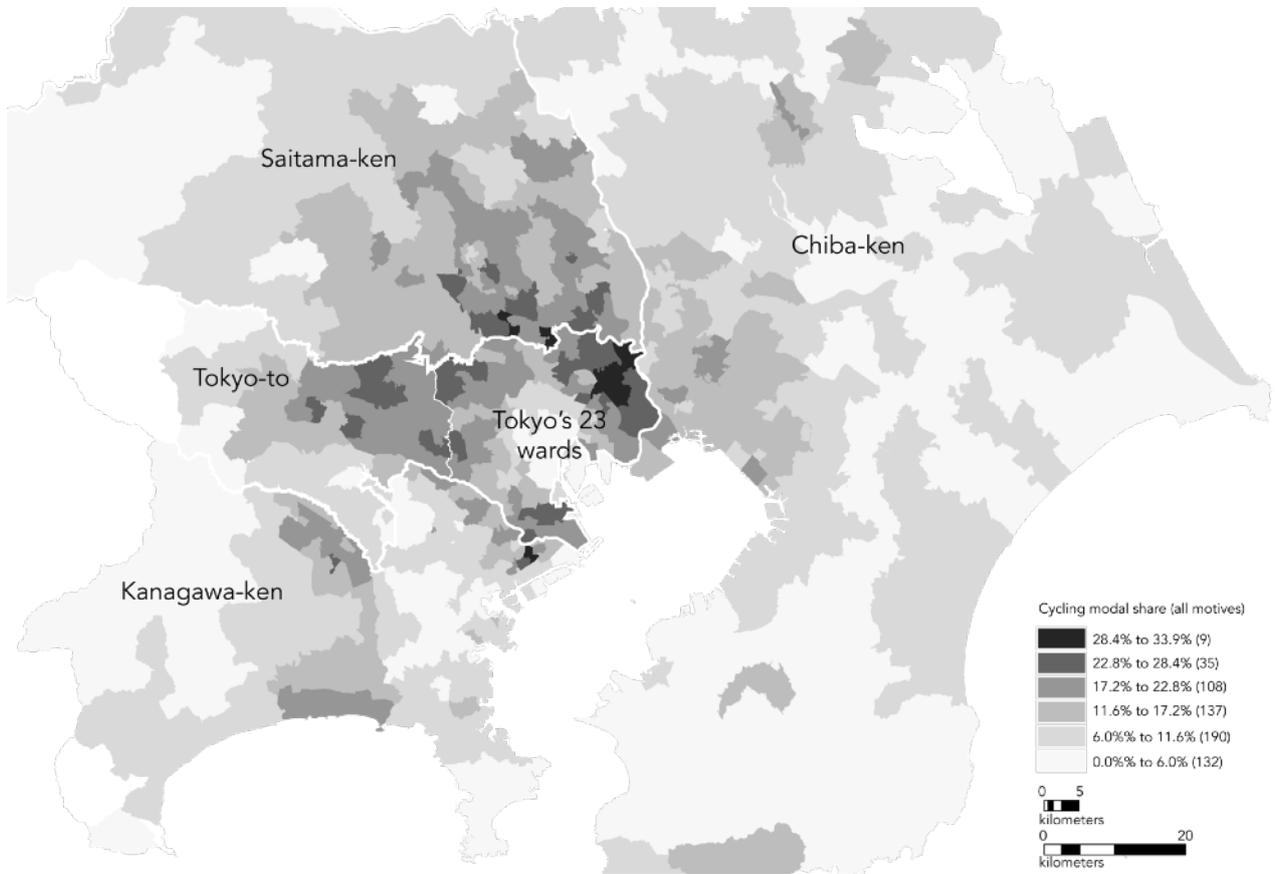


Figure 2 - Cycling modal share per planning unit in the Greater Tokyo area. Source of data : 18th Person Trip Survey, TMTPC 2018.

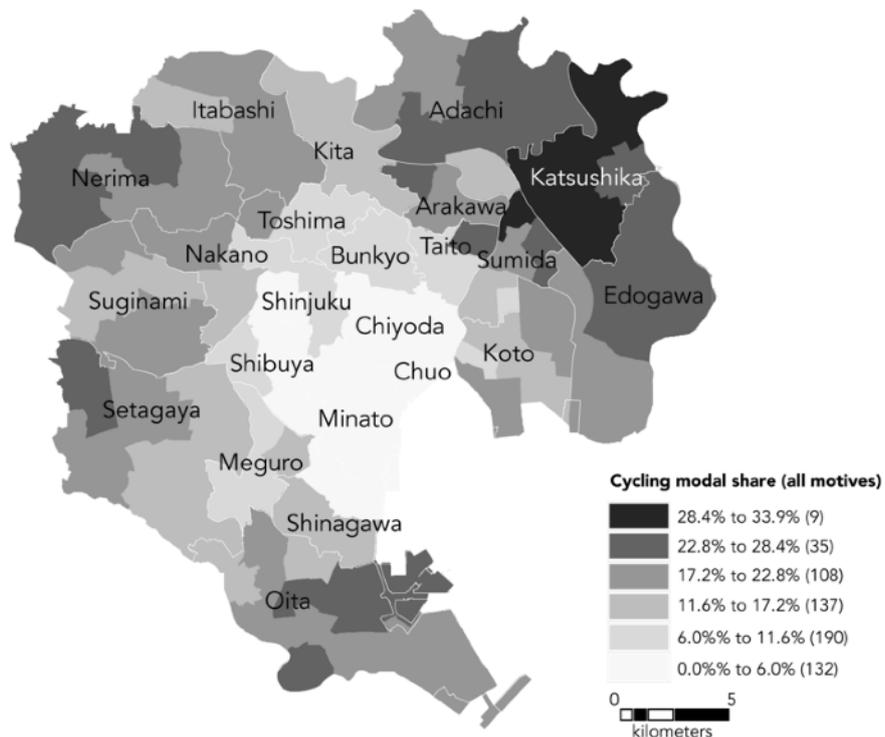


Figure 3 - Cycling modal share in Tokyo's 23 central wards (all motives)

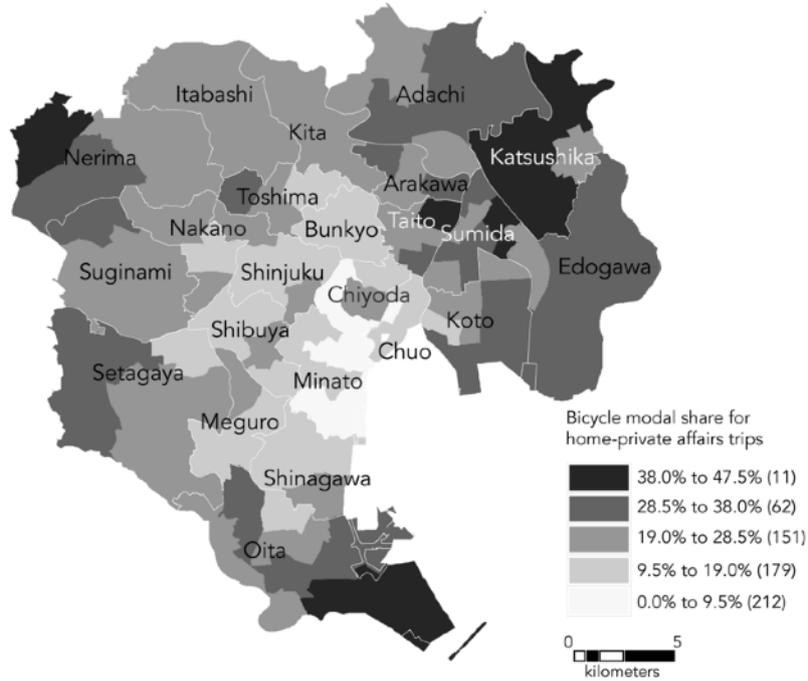


Figure 4 - Cycling for home-private trips

Cycling is thus associated with household-serving trips. These specific trips are mostly taken on by women: 63% of all home-private affairs trips are conducted by women, as well as 55% of other private affairs trips (Figure 5). According to Goel et al. (2021), all in all, 57.5% of cycling trips in Tokyo are taken by women.

How about men ? 59% of home-work trips - 65% of which are conducted using rail-based public transport - are conducted by men. Men also take the majority of home-business trips (70%) and work/business trips (80%) ; these trips types are associated with car use and public transport use. On the one hand, there appears to be a correlation between private-affairs related motives, active modes, and the profile of women. On the other, there is a correlation between work-related trips, rail and cars, and the profile of men (TMTPC, 2018).

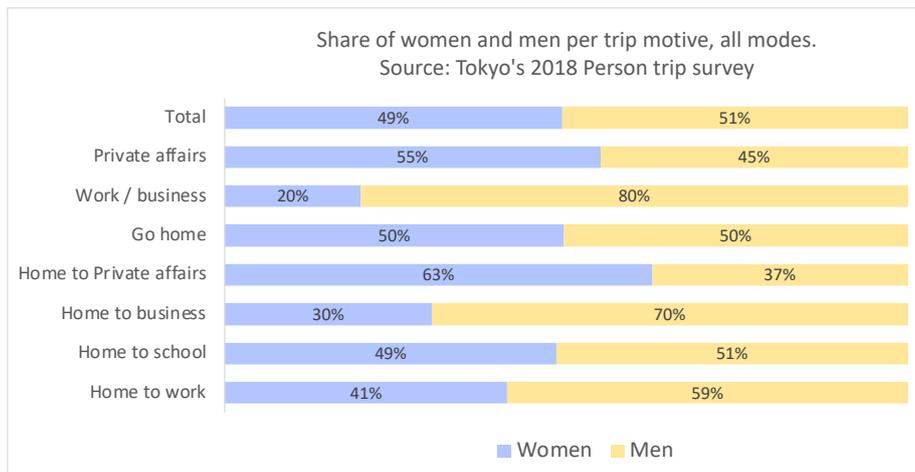


Figure 5 - Share of women and men per trip motive

Japanese women's trip motives reflect their position in a society marked by gender inequalities. The Japanese post-war capitalist system relied on a strict gender division of production and reproduction activities: men would work for a 'family wage' while women would stay at home to take care of domestic tasks (Miura, Mari 2012). Since the 1990s, successive governments have promoted women's increased participation in the labour force to revitalise Japan's recessioning economy (Kano, Ayako 2018): today, 76% of Japanese women are employed (Shambaugh, Jay; Nunn, Ryan; Portman, Becca 2017). However, they do not participate on equal terms: 70% of female workers are irregularly employed (Yuasa, Makoto 2008), that is, in part-time or precarious jobs. An irregularly employed woman earns 50.4% of a regularly employed man's wage (Kano, Ayako 2018) : the resources of women are limited.

Moreover, Japanese women's time resources are also strained due to unequally shared domestic tasks: they spend on average 29 hours per week on household chores, while men only spend two hours on these same tasks (Shirahase, Sawako 2014). Motherhood puts an additional strain on Japanese women's resources and autonomy: due to limited welfare state provisions and pervasive gender norms, 80% of working women leave their job upon the birth of their first child (Allison, Anne 2013), and only 30% of Japanese children aged up to two years old are enrolled in daycare centres (OECD 2017). It thus appears that cycling has emerged as a key mode of transport for care-trips, overwhelmingly taken by women. Which role has the environment played ?

Tokyo sets itself apart from other high-cycling cities such as Amsterdam or Copenhagen by its lack of cycling lanes and paths. Out of the 18 716 km of roads in Tokyo, only 305 km display some sort of cycling infrastructure, that is, only 1.6% of the network. In the Tokyo Bicycle Traffic Space Improvement Plan (see analysis in following parts), the TMG committed to bringing this number to 900 km by 2030, that is, 4.8% of all roads. Today, the network is fragmented and very limited (black roads on Figure 6), and will remain so even after all planned developments are delivered (red roads on Figure 6). This lack of separated and protected infrastructure may be linked, in part, to a lack of space. Indeed, about 60% of all roads within the Tokyo Metropolitan area are less than 5.5 meters wide (TMG 2021).

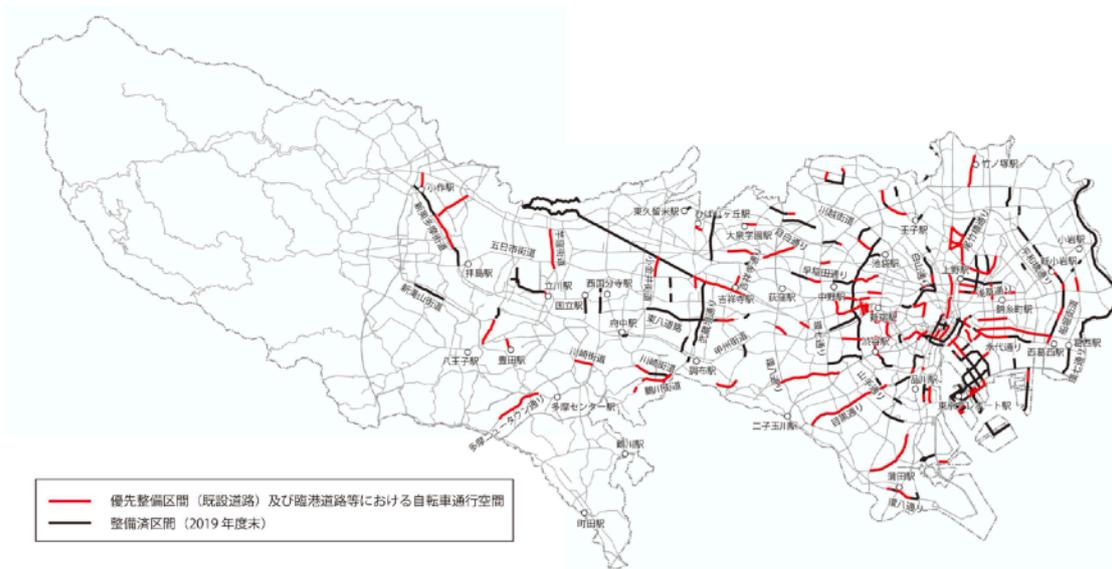


Figure 6 - Cycling network in the Tokyo Metropolis. In black: cycling infrastructure (all types) delivered by 2019 ; in red, cycling infrastructure planned at the time of the plan or through the plan. Source: Tokyo Bicycle Traffic Space Improvement Plan (TMG 2021)

In addition to this lack of cycling infrastructure, another feature sets Tokyo apart from other high-cycling city: cyclists are commonly found on the footpath - where such footpaths are available, that is, on wide roads. This is due to a grey zone in the Japanese traffic law: in 1970, in response to a stark increase in accidents between cars and cyclists, the Japanese government decided to allow cyclists on the footpath. Today, the law stipulates that children and the elderly are allowed on the footpath, while other cyclists should be on the road. However, 90% of cyclists surveyed by the Tokyo Metropolitan Government in 2020 note that they commonly see cyclists riding on the footpath (TMG 2021).

Interestingly, this specific situation echoes the recent interest for shared spaces in the West. Inspired by the Dutch *woonerfen*, these areas rely on low speed limits and a removal of all road markings to ensure a peaceful sharing of space between cars, bicycles and pedestrians (Ben Hamilton-Baillie 2008). While they appeared in the Netherlands in the 1970s, they recently gained popularity in countries such as France, the UK, the US or Australia (Biddulph, Mike 2010, Hatfield, Julie; Prabhakaran, Prasannah 2016), and, as argued by Barr et al. (2021) have become part of the sustainable transport planning toolbox. Their popularity can be explained by the fact that they represent

The key difference between the Japanese situation and these Western projects is the following: in Europe and North America, the development of shared spaces results from a purposeful will to give priority to the weakest users roads users: pedestrians have priority over bicycles, and bicycles over cars (Barr, Stewart; Lampkin, Sal; Dawkins, Laura; Williamson, Daniel 2021). In Japan, this measure gave cars a right to unhindered mobility on the roadway, while bicycles and pedestrians were left to share the remaining space. A measure adopted in the heydays of automobility, it did not endeavour to make car drivers accountable to vulnerable road users.

Yet, this measure seems to have encouraged a diversity of city dwellers to use bicycles. The author conducted an interview-based pilot with 20 women and men living in the Greater Tokyo area between March and July 2020 (Lagadic, unpublished). All interviewees concurred: female cyclists, more specifically mothers travelling with children, tend to be those found on the footpath. Male commuters or leisure cyclists have a greater tendency to ride on roads ; when riding with children, men tended to go to the sidewalk too.

Nowadays, in Europe and North America, shared spaces are often presented as a way to attract a more diverse range of users onto the road by pacifying ongoing struggles over urban space (Petzer, Brett John Mathew 2021). To the knowledge of this author, no research has yet documented the impact of shared spaces on the sociodemographic profiles of road users. Yet, in Japan, it feels that the generalised tolerance of bicycles on footpaths has contributed to people seeing cycling as compatible with childcare-related trips.

In Tokyo, a gender and transport context conducive to women cycling has emerged. However, this specific cycling culture appears to be related to an unequal gender contract, and an atypical infrastructural context for such a high cycling city. The goal of this discussion paper is to explore how policymakers address this gendered cycling culture. Do they account for the role cycling plays in women's lives ? Do they cater to their specific needs ? Do they support, or challenge this specific cycling culture?

3. Methods

3.1. Overview of relevant plans and strategies

In Japan, transport policy is decided and implemented at three institutional levels. First, the national government passes laws and develops them into national strategies. These strategies set objectives and operational principles to reach these objectives. Upper-tier local authorities - in our case, the Tokyo Metropolitan Government (TMG) - are then expected to adapt these national strategies to the local level, and to work with lower-tier authorities (in Tokyo, wards and cities) to deliver the objectives set by the national government.

The highest-level plan of interest here is the national 'Bicycle Utilisation Promotion Plan'. Interviewed by the author, a member of the Bicycle Utilisation Promotion team at the Ministry for Land, Infrastructure, Transport and Tourism (MLIT) described the Bicycle Utilisation Promotion law as "one of the major turning points in Japan's cycling history": before this plan, Japan never had a national-level cycling promotion strategy. This plan sets itself four key goals: (1) creating a good cycling environment ; (2) creating a healthy society by promoting cycle sports ; (3) creating a tourism-oriented country by promoting cycle tourism ; (4) creating a safe and secure society

without bicycle accidents. It is already worth noting that out of four objectives, two are not concerned with everyday cycling, but rather with cycle sports and tourism.

This application of the national 'Bicycle Utilisation Promotion Plan' at the local level has led to the adoption/revision of three cycling plans in Tokyo.

- The 'Bicycle Utilisation Promotion Plan' (TMG 2021), which was adopted in 2019 and constitutes the local application of the national-level 'Bicycle Utilisation Promotion Plan'. It was revised in 2021 to integrate some principles for post-COVID-19 "green recovery";
- The 'Bicycle Traffic Space Improvement Plan' (TMG 2021), which succeeds the previous plan adopted in 2012. This plan results from two upper-level plans: the 'Tokyo 2040 Vision' (urban design vision) and the previously mentioned 'Bicycle Utilisation Promotion Plan'. It is an urban design plan, focused on infrastructure;
- The Bicycle Safe Use Promotion Plan (TMG 2021). This plan follows from a previous plan (2016-2020) ; it answers the 'Bicycle Utilisation Promotion Plan', as well as the 'Tokyo Traffic Safety Plan'. It focuses on road safety.

It is worth highlighting that the objectives and strategies of the Tokyo Bicycle Utilisation Promotion Plan are the same as those defined in the national-level plan. The local plan complements this strategy with contextualised data and operational measures.

3.2. Theoretical framework and research questions

The analysis will be guided by McPhail's (2003) feminist policy analysis, and its revision by Kanenberg et al. (2020). McPhail's feminist policy analysis has been developed to shed light on the often silent patriarchal norms that underline policies. Kanenberg et al. (2020) argue that "engaging in an analysis and identification of gendered policy, one is able to detect the consequences of customary and established approaches and the methods by which they serve the patriarchal structure of the state". Using this framework may allow to reveal and question the assumptions that underpin Tokyo's cycling policy and to discuss possible gendered impacts these policies might have.

Feminist policy analysis in the Global North has tended to be applied to social and welfare policies, which have a direct impact on gender inequalities, rather than to urban policy (Wekerle, Gerda R.; Peake, Linda; Rieker, Martina 2013). As argued by Wekerle (2013), "gender remains by and large invisible in the articulation of urban policies. Similarly, feminist policy analysis pays scant attention to the large-scale institutional and governing relations, policies and processes within which problems are identified at the scale of the urban region, and how they shape particular outcomes, women's everyday lives, and women's engagement with these policy processes". The goal of this policy analysis work will be to answer this shortcoming by showing how seemingly technical bicycle policies are actually underpinned with gendered assumptions regarding urban

lives, mobility in the public space, and daily activities. This may allow to cast light on wider, large-scale institutional and cultural processes in which actors are embedded, and that limit their ability to develop truly gender-inclusive policies.

McPhail’s (2003) feminist policy analysis framework consists in a list of research questions that should be applied to the policy under study. The following set of questions have been chosen and adapted to guide the following development.

Question from McPhail 2003	Adaptation to cycling policy if relevant
Who is the assumed standard for the beneficiary of the policy ?	Who is the assumed standard of a cyclist in these plans ?
Does the policy address the differences between men and women ? Across women ?	NA
Is the unpaid work of care - childcare, elderly care, household maintenance - provided by women considered and valued ?	Is the mobility of care (de Madariaga and Zucchini, 2019) provided by women considered and valued ?

Table 1 - Research questions

Policies and urban planning projects are influenced by specific, socially constructed framing of the issues at hand (Wekerle, Gerda R.; Peake, Linda; Rieker, Martina 2013). These framings are influenced by cognitive and normative ideas (Campbell, John L. 1998, Bradford, Neil 2016), that is, conceptions of what is possible and what is right (Akyelken, Nihan; Banister, David; Givoni, Moshe 2018). Feminist researchers work towards deconstructing these hegemonic narratives (Peake, Linda; Rieker, Martina 2013), and showing that alternative narratives emerge when structural inequalities and patriarchal gender norms are accounted for. The goal of this analysis will be to deconstruct the narratives framed by policymakers and to identify alternative narratives, backed by data and already championed by activists in Japan.

To pursue these goals, two key methods will be used: first, the discourse presented in the three current bicycle plans has been analysed using the research questions defined above. Second, the author has interviewed policymakers, cycling activists, feminist activists, as well as Japanese scholars specialised in cycling and gender studies (Table 2). All experts formally consented to being interviewed and quoted in a public report ; the identity of the two policymakers has been kept anonymous. Interviews have been analysed to give more depth to the policy analysis, and to identify the alternative narratives that actors outside of cycle planning institutions may develop.

Expert	Position	Area of expertise
UTSUMI Jun	Secretary General of the Bicycle Promotion Study Group (Independent NPO)	Cycling practices and policy in Japan

Expert	Position	Area of expertise
KOBAYASHI Shigeki	Chairman and general director of the Bicycle Promotion Study Group	Cycling practices and policy in Japan
Anonymous. Referred to as "Interviewee for the MLIT". Speaking in his own name.	Bicycle Utilisation Promotion Headquarters, Ministry of Land, Infrastructure, Transport and Tourism (MLIT)	Cycling practices and policy in Japan
Anonymous. Referred to as "Interviewee for the TMG". Speaking in his own name.	Transport planner for the Tokyo Metropolitan Government (TMG)	Cycling practices and policy in Tokyo
NAKAMURA Kazuki	Associate Professor in Urban Studies, Meijo University	Cycling practices and policy in Tokyo
ANDO Tetsuya	Founder of Fathering Japan, NPO promoting father's involvement in childcare	Gender norms in Japan and social policy in Japan
NOMURA Yoko	Elected official on the Mitaka City Council, Tokyo. Member and co-chair of the AFER (Alliance of Feminist Representatives), an association of feminist politicians in Japan	Gender norms and gender equality policy in Japan
ITO Kazuko	Elected official on the Kawagoe City Council, Greater Tokyo. Member of the AFER (Alliance of Feminist Representatives)	Gender norms and gender equality policy in Japan
TAGA Futoshi	Professor, Kansai University. Visiting Scholar at the Reischauer Institute of Japanese Studies, Harvard	Gender norms and gender stereotypes on the labour market in Japan

Table 2 - Experts interviewed

Policy documents were analysed in Japanese and translated to English by the author. Interviews were conducted in Japanese by the author, with the support of an interpreter to ensure a precise understanding and a truthful translation. All citations featured in this article were translated by the author.

4. Official and alternative narratives regarding cycling

This part explores how the issues related to cycling have been framed by policymakers, based on the three bicycle plans, and on relevant interviews. These narratives are deconstructed using

academic references and secondary data, and alternative narratives are outlined based on secondary data and certain interviewee's discourses.

The following development is organised in three parts, each focused on a specific narrative. First, the narrative about the average beneficiary of the policy will be analysed: how does the TMG frame the cyclists whose needs it would be answering? Second, the narrative around the cyclist as an unruly citizens who would not respect rules and generate unsafety. Finally, the narrative around physical infrastructure as serving all types of cyclists as efficiently.

4.1 Narrative 1 - The average cyclist and beneficiary of the policy

Policymakers' narrative - the average cyclist is a commuter and a shopper

In all the three plans, the Tokyo Metropolitan Government repeats its

The tone of this discourse is rather universalist: everyone should be able to use cycling, and this policy will serve everyone in the same way. But who is 'everyone'? McPhail's (2003) feminist policy analysis framework encourages us to explore who is the assumed standard of the cyclist in these plans, and whether differences between men and women are taken into account.

While all three documents start with a discussion of key figures from the Tokyo travel survey, none of these discuss sociodemographic profiles. All three plans suggests that there is, indeed, a single response suitable for all kinds of users. The interviewee for the MLIT shares this discourse: to him, cycling concerns all kinds of people in Japanese society. His argument is supported by very high mode shares all over the country, in all age groups and for both men and women (Pucher, John; Buehler, Ralph 2012, Goel, Rahul; Goodman, Anna; Aldred, Rachel; Nakamura, Ryota; Tatak, Lambed; Garcia, Leandro Martin Totaro; Zapata-Diomed, Belen; de Sa, Thiago Herick; Tiwari, Geetam; de Nazelle, Audrey; Tainio, Marko; Buehler, Ralph; Götschi, Thomas; Woodcock, James 2021). However, this discourse is in tension with the academic literature on the different mobility needs and constraints faced by different sociodemographic groups: it is not because everybody cycles that all cyclists have the same needs.

Since there are so many different uses for bicycles, I don't think there is a strong trend in which people of a certain gender use bicycles more, or in terms of the age groups who use bicycles more, such as the elderly, the young adults, or the children. I don't think there are any strong trends."
Interviewee, Bicycle Utilisation Promotion Headquarters, MLIT

One sub-category of cyclists, however, is discussed: that of elderly cyclists. The TMG stresses the vulnerability of elderly cyclists as "the proportion of cycling fatalities among those aged 65 and over remains high" (TMG 2021). Contrary to other cyclists (and along with children below 13 years old), they are allowed to ride on the sidewalk to ensure their own safety. The government also commits to working with local governments, senior citizens' clubs and resource centres for the elderly to organise safety classes. All in all, elderly cyclists constitute the only group identified as

having specific needs and facing specific risks. Jun Utsumi, Secretary General of the Bicycle Promotion Study Group - non-profit organisation engaged in cycling research and promotion - identifies this as a major step forward.

"In the Bicycle Utilisation Promotion Plan, the government has decided to make it easier for the elderly and elder people to use bicycles. The government has also included in the plan the need to develop bicycles that are safe and easy for the elderly to ride, so I feel that we are getting closer and closer to 'For Everyone'." Jun Utsumi, Secretary General of the Bicycle Promotion Study Group

Which role does cycling play in daily life ? All throughout the documents, policymakers associate cycling with two key motives: commuting to work or school and shopping. This is repeated multiple times in all three plans. The importance given to these three motives is backed by data: the 'Traffic Space Plan' (TMG 2021) notes that "the top reasons for using bicycles in Tokyo are 'commuting' and 'personal affairs (shopping)', accounting for 50% of the total". This interpretation will be critically assessed in the following sub-part, as the same data could also have been interpreted in a different way (Figure 7).

Following this interpretation of the data, the remainder of the plans focuses mainly on commuting or shopping-related trips. Care-related trips, or children 'pick-up drop-off' trips, are not addressed as they were not identified as a key motive category. This appears surprising given that Japan's cycling culture is associated with the image of the mother carrying children on her 'mamachari' bicycle (Steele, M. William 2012). Mamachari bicycles are only mentioned insofar as they raise different safety challenges ; the government recommends manufacturers and retailers should provide their clients with specific user guidelines for safety (TMG 2021). Beyond that, parents are little discussed as bicycle users themselves, but rather as instructors, responsible for their children's cycling education.

The author asked the Ministry and the TMG interviewees why mamachari cycling mothers and care-related trips were absent from these plans. The interviewee for the MLIT argues the plan aims at creating a space where all kinds of cyclists can thrive, and that is why there was no need to focus specifically on this sub-category.

"This plan is focused on what we are going to change and how we are going to change it. Therefore, the current uses themselves are not our core concern. We are focusing on how to create a new space where people can run safely in general, and this is why it [women using mamachari] does not show up in the expression." Interviewee, Bicycle Utilisation Promotion Headquarters, MLIT

Finally, these plans extensively discuss cycling for leisure: promoting cycle sports and cycle tourism are key objectives of the Tokyo Bicycle Promotion Plan, as they were key objectives of the National Plan. The development of 'cycle courses' - cycling paths allowing for speed - along rivers and in metropolitan parks is identified as a priority. Cycle sports events are also identified as a key lever to prompt residents' interest for the health benefits of cycling. The cycling-related events planned as part of the Olympics are stated as examples.

Deconstructing the narrative - the importance of data

It is commonly - and misguidedly - assumed that data reflects an objective truth. However, data is organised around categories, and choosing these categories is an intrinsically subjective process. Indeed, categories and headings reflect the data analysts' pre-conception of the world. As argued by de Madariaga (de Madariaga, Inés 2013, de Madariaga, Inés; Zucchini, Elena; Scholten, Christina Lindkvist; Joelsson, Tanja 2019), data is also underlined with gendered pre-conceptions.

This is well exemplified in the Traffic Space Improvement Plan (TMG 2021). The trip motive typology used in the plan supports the idea that commuting is the most important reason for using a bicycle. However, two important points should be noted. First, 44% of bicycle commuting trips are combined with rail trips, while intermodal trips only represent a very small share of cycling trips taken for other motives. Commuting trips thus appear to be quite different from other bicycle trips. Second, trips for "personal affairs" - that is, everyday activities unrelated to either salaried work or leisure - have been separated into six sub-categories. While that of shopping is, indeed, the second most important after commuting, all six categories together represent the majority of bicycle trips in Tokyo's 23 central wards : 2 172 000 trips are related to personal affairs (including shopping), vs. 1 768 000 commuting trips. All in all, the analysis presented in the infrastructure plan is not wrong ; however, it is subjective and based on a bias choice of categories that can easily be challenged to make a different argument.

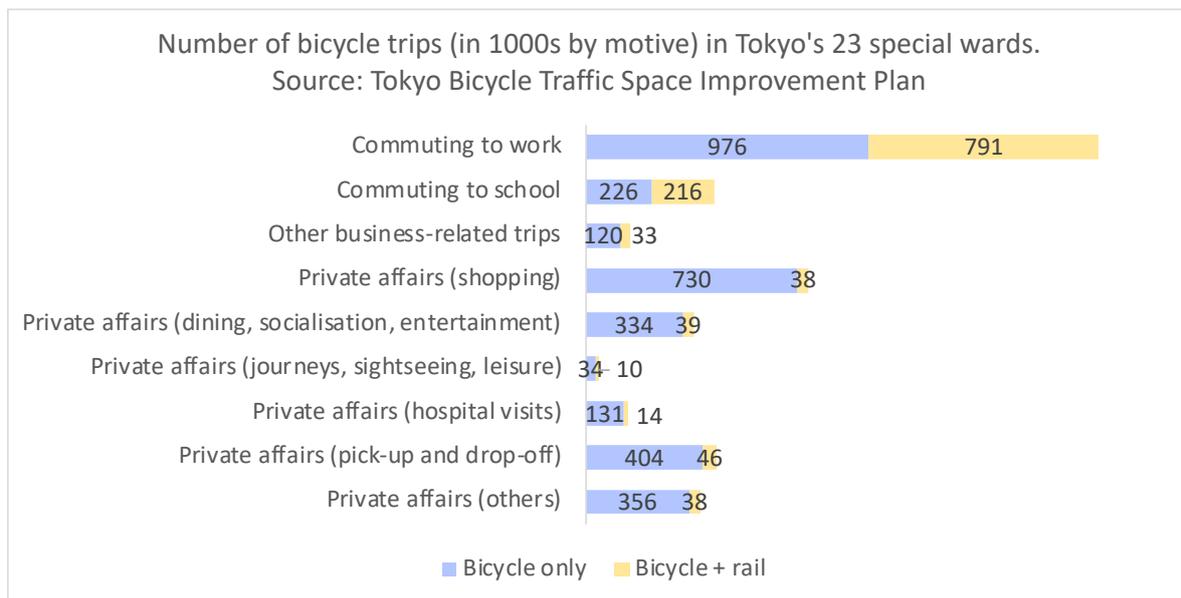


Figure 7 - Number of cycling trips per motive (in thousands). Source : Tokyo Bicycle Traffic Space Improvement Plan (TMG 2021). Scope: Tokyo's 23 wards.

Other personal affairs trips excluding shopping are not discussed in the documents. Yet, these include the third most important single category: picking-up and dropping-off someone. While this specific use of the bicycle is not addressed in the strategy, it is mentioned by the interviewee for the Tokyo Metropolitan Government (TMG) as key when interviewed.

"Bicycles are used on a daily basis. Commuting to school or shopping. Also, something that changes from foreign countries and that is quite characteristic compared to other foreign countries is "sōgei", that is, using the bicycle to pick up the child from kindergarten or nursery school. After that, the most common thing is other complicated errands, and then work. Commuting." Interviewee, Tokyo Metropolitan Government

Pick-up and drop-off trips are care trips that can be expected to be taken mostly by women: as outlined in the introduction, 63% of household-serving ("personal affairs") trips - among which are pick-up and drop-off trips - are conducted by women (TMATPC, 2018). Moreover, Japan has traditionally relied on a strict separation of production (paid work) and reproduction (domestic work) activities between women and men, as explained by Shigeki Kobayashi - Chairman and general director of the Bicycle Promotion Study Group (BPSG), a non-profit organisation - and Futoshi Taga - Professor of Sociology at Kansai University. To Shigeki Kobayashi, bicycle use motives echo this division of labour: men who cycle do so for work, women who cycle do so for care. McPhail's (2003) framework encourages the author to discuss whether the mobility of care provided by women is considered and valued in the policy ; it is not the case so far, as 'pick-up drop-off' trips are not taken into account so far.

"If you are a man, you probably use it [the bicycle] a lot for commuting. There are also a lot of people who ride bicycles for work that requires them to be mobile. But most of them use it for commuting. The rest of the time, it's a hobby. However, most of the mothers use bicycles to carry their children." Shigeki Kobayashi, Chairman and general director of the Bicycle Promotion Study Group

"I think that a big problem in Japanese working culture is there, still. The image of a standard employee is still a male employee who works for his family and works for long hours to provide for his family and who does not have to participate in childcare, in housework because their housewives take care of them". Futoshi Taga, Professor in Sociology at Kansai University

It is worth highlighting that the two trip motives singled-out in these strategies - commuting and shopping - are both related to growth and to the success of the economy. Privileging growth in urban policy is not new in Japan: in the post-war period, the Japanese state developed infrastructure that would support economic growth, that is, highways, ports and airports, industrial sites. The realm of the mundane - housing, public spaces - was left to the private sector, under very low development controls (Sorensen, André 2003). This approach has endured, and now takes the form of a « fusion of government-led developmental policy and market-based neoliberal policy » (Hirayama, Yosuke; Forrest, Ray; Koh, Sin Yee; Wissink, Bart 2017) serving Tokyo's global city ambitions (Waley, Paul 2006, 2007, Cybriwsky, Roman A. 2011). This norm - privileging the economic realm - is arguably embedded in Japanese institutions, and also influences cycling policy.

None of the data analysed in these plans is disaggregated by sex. The categories of 'women' and 'men' are entirely absent from these documents. This issue is highlighted by Yoko Nomura, Councillor in Mitaka, one of the cities that constitute the Tokyo Metropolis. Shigeki Kobayashi

(BPSG) shares Yoko Nomura's vision: to him, the plan may not appropriately serve women, and more specifically mothers, if their needs are not properly understood.

"The data is not properly disaggregated by gender. I think that's a big thing. (...) if they had properly investigated the needs of men and women separately, they would have known more about it. But we don't even have that. We don't have proper gender statistics, so it's difficult to see that." Yoko Nomura, Councillor in Mitaka, Member and co-chair of the AFER

"There are many mothers who enjoy riding their bicycles (...). However, the question is how to make bicycles safe for mothers to ride. I think it is necessary to think about the road environment and rules from the perspective of mothers, from the side of the vulnerable." Shigeki Kobayashi, Chairman and general director of the Bicycle Promotion Study Group

Alternative narrative - the average cyclist is a mother

The narrative developed by policymakers about the average cyclist is the following: the average cyclist can be a man or a woman, of any age. Cycling is mostly used to go to work/school, or to go shopping ; that would be true of all kinds of people, as differences across cyclists are not mentioned.

When interviewing key stakeholders outside of government - experts either on cycling in Japan or on Japanese women's daily lives - another narrative emerges. Male cyclists who commute to work do, of course, exist ; however, the most common cyclist in Tokyo would be a woman, and more specifically a mother. She would use the bicycle for short domestic errands around the home, as well as to pick-up and drop-off her children. She may also use the bicycle to reach the station as part of her commute, but the reason she cycles is because she is time-strained, and the bicycle is the most suitable mode for her to go around her neighbourhood. Jun Utsumi (BPSG), Shigeki Kobayashi (BPSG), Kazuki Nakamura (Meijo University) and Yoko Nomura (Councillor in Mitaka) relate cyclist profiles and cycling use cases to the stereotyped gender roles that are still widely accepted in Japan: the woman as primary carer - even when she works - and the man as breadwinner. This supports the case made in the literature review: women's mobilities can only be understood if their place in society is understood.

"There are many mothers. After all, the purpose of the people who are riding bicycles nowadays is shopping and pick-up and drop-off. (...) There are so many people who commute to work, but there are more people who use it for shopping than those people, so for short errands. If you go farther, trains, buses, and subways are quite popular in Tokyo (...) so I think that the current situation is that bicycles are used at a distance of 2 kilometers, near home" Jun Utsumi, Secretary General of the Bicycle Promotion Study Group (BPSG)

"There are so many mothers who have to work to raise their children. Hurry up in the morning and send the children to a nursery school or kindergarten, and go to work on that bicycle. Come back in the evening, pick up the kids again, bring them home, feed them, and let them study. They're

extremely busy.” Shigeki Kobayashi, Chairman and general director of the Bicycle Promotion Study Group (BPSG)

“In the wards of Tokyo, 35% of people use their bicycles(...) to take their children to kindergarten, to nursery school, to go shopping, to go to lessons, and so on. That's what they use it for. I think it means that mothers are using them for care work.” Yoko Nomura, Councillor in Mitaka, Member and co-chair of the AFER

The interviewee for the MLIT does not deny that profound gender inequalities exist in Japan, and he agrees that this is an important problem. However, he does not believe that this relates to cycling policy. Yoko Nomura (Mitaka Councillor) convincingly makes the case for linking the two: to her, it is not possible to design any policy for 'everyone', because women are still expected to fulfil the role of women rather than to create their own paths as individuals. The 'rules of the game' under which they make everyday decisions, including those about their mobility, are profoundly gendered.

“I think there is another issue in terms of the social advancement of Japanese women. As for bicycles, as I mentioned earlier, I think we have an equal situation.” Interviewee, Bicycle Utilisation Promotion Headquarters, MLIT

“It's very difficult. To imagine the current government doing anything. I think it's really important for women to live their lives both as women and as themselves. In the current administration, many people want women to fulfill the part of women, to do what is expected of women, rather than creating their own path. Women's activity is only a token. The thing is that in this context, things cannot really change” Yoko Nomura, Councillor in Mitaka, Member and co-chair of the AFER

The reason why cycling is so suitable to these domestic and care-related trips is because specific bicycles are available: the mamachari. To answer the demand from time-strained urban mothers, manufacturers developed bicycles aimed at carrying up to two children, along with groceries. The vehicles have been re-designed and refined since the 1950s, from bicycles with baskets to innovative bicycles that can be used to carry children up to a total of 40 kg. Shigeki Kobayashi, explains that these bicycles to carry children are the most common bicycles in Japan nowadays.

“in the 1990s, mothers started to carry their children and packages. Bicycles were developed to carry a lot of shopping bags. (...) A child weighing up to 15 kg can be placed there, and a child weighing up to 25 kg can be placed on the back of the bicycle. So running with children in the front and in the back became the norm.” Shigeki Kobayashi, Chairman and general director of the Bicycle Promotion Study Group

“ I think one of the reasons [why Japanese women use bicycles] is that bicycles with a special structure made for a certain purpose are common. (...) We call it mamachari. These mamachari, or city bicycles, are very much a part of people's lives since the 60's and 70's and have become common vehicles” Interviewee, Bicycle Utilisation Promotion Headquarters, MLIT

“In the 30's and 1950's, it seems that a bicycle that was easy for women to use was put on the market and was held as a bride's tool.” Interviewee, Tokyo Metropolitan Government.

The fact that this specific bicycle industry and market exists and thrives suggests that the interrelation between cycling, gender and care is not a subjective interpretation of the data, but a unique feature of the Japanese cycling culture. This feature appears absent from these strategies.

4.2. Narrative 2 - The unruly cyclist: cycling as a hazard

A second key narrative emerges from these policy documents: that of cycling as a danger due to cyclists' disrespect of rules: they would cycle as one walks, with limited awareness of traffic law. It will be argued that this narrative disregards the function cycling serves in Tokyo, and the lack of alternative options, particularly for short, domestic trips primarily conducted by women. While improving safety is a priority, the discourse used is not inclusive, and tends to blame the most vulnerable users.

Policymakers' narratives - Cycling as walking: the result of an emergency measure that needs to end

Safety is the key running theme throughout all three documents, even though one plan - the 'Safety Plan' (TMG 2021)- is supposed to deal specifically with this issue. Contrary to discourses commonly heard in the West, cyclists are not presented as vulnerable users, but rather as the cause of danger. The 'Safety Plan' (TMG 2021) repeats that "in the majority of bicycle accidents, the bicycle user is also responsible for the violation", and that "the majority of bicycle accidents are the result of violations on the part of bicycle users". This discourse is also used in the 'Bicycle Promotion Plan', which specifies that "in nearly half of all accidents in which a cyclist was a party, the cyclist was involved in some form of violation, the most common violation being failure to check for safety (...), followed by failure to proceed safely at an intersection".

Cyclists who use the footpath are particularly targeted. The 'Traffic Space Plan' notes that accidents with cars represent a decreasing share of all bicycle-related accidents, while "the proportion of accidents involving single cyclists, accidents between cyclists and accidents between cyclists and pedestrians has been on the increase". To improve the safety of cycling in Japan, the MLIT wants to bring bicycles back onto the road, that is, to put an end to the tolerance of bicycles on footpaths that has existed since 1970. The interviewee for the MLIT reminds that this was only an emergency measure, and argues that it is time to put an end to it.

"It is difficult to foresee what kind of impact the policy will have, but the major trend is, as I mentioned earlier, to slowly move bicycles back onto the roadways after they were allowed to ride on sidewalks as an emergency measure." Interviewee, Bicycle Utilisation Promotion Headquarters, MLIT

These documents also suggest policymakers' wish to clarify the status of bicycles as light vehicles - a broad category that also encompasses cars and motorcycles in Japanese Road Traffic Law

(Cabinet Office, Government of Japan 1960 [Last amendment in 2015]). First, it is noted that cyclists tend to use bicycles as they would walk. The 'Safety Plan' (TMG 2021) specifies that "as bicycles do not require a driver's licence, they are used by people of all ages in all kinds of situations and, in terms of safety awareness and traffic rules, they tend to be used in the same way as walking, that is, following one's intuition". The key message that policymakers convey in these documents is the following: a bicycle is more similar to a car than it is to walking. They belong on the road, and not on the footpath along with pedestrians. This also suggests a change of paradigm in terms of speed, as riding on the road necessarily implies higher speeds.

The issue of safety is framed around cyclists' unruly behaviour ; the answer thus lies in cyclists' education. All three reports repeatedly mention the term "manners": safe cycling would imply not only following the rules (i.e. Japan Road Traffic Law), but also adopting good cycling manners. This is summarised in the 'Safety Plan': "in order for bicycles to be used safely and appropriately, it is essential for people who use bicycles to be aware that bicycles are vehicles, to obey traffic rules, including not leaving bicycles unattended, and to practice good traffic manners".

While cyclists are expected to improve their manners, the potentially harmful behaviours of motorists are little discussed. It is mentioned that illegal parking on cycling lanes or roads should be discouraged through signs, and that offenders should be fined. Beyond that, no resource has been developed to teach motorists about bicycle-aware driving. The Bicycle Safe Use Promotion Plan mentions that the Metropolitan Police will be encouraged to "teach bicycle traffic rules and manners at renewal courses for driver's licenses". This could be a way to make motorists aware of their own role to ensure cyclists safety ; however, the language used in the document suggests that these courses would rather discuss the rules these people should respect when they cycle. All in all, cyclists are held responsible and accountable for their own safety, as well as that of other road users ; motorists, who cause the greatest share of cycling fatalities, are not held responsible for the safety of cyclists.

Deconstructing this narrative - cyclists are vulnerable users, threatened by cars

Policymakers stress that accidents between cyclists and pedestrians have been on the rise. Again, this is not wrong. However, policymakers chose to comment on the trend rather than on the actual figures. These figures tell a different tale: accidents with cars remain the most common type of bicycle accident. In 2020, 42.7% of all accidents involving bicycles also involved a car. In total, accidents involving only active modes represented 34.8% of all accidents (TMG 2021). All in all, these plans seldom discuss cyclists' own vulnerability as road users, except when discussing two vulnerable types of cyclists: children and the elderly. Apart from these profiles, cyclists are presented as a traffic hazard.

The local government presents the tolerance of sidewalk cycling as an emergency measure that has to end now to ensure safety. However, as argued by Shigeki Kobayashi, this tolerance for sidewalk cycling has shaped the Japanese cycling culture, and has now become a norm. Dr.

Kazuki Nakamura highlights the complexity of the issue: bicycles on the sidewalk are, indeed, a hazard for pedestrians. Yet, this situation has endured because the road is not safe enough for cyclists, especially for the mamachari-riding mothers who tend to be the ones who favour the sidewalk. To him, what he calls a “paradigm shift” risks putting a barrier to women’s cycling practices. It is also worth highlighting that this “paradigm shift” happens at a time when an increasing number of cities are experimenting with shared spaces, which have been identified as inclusive, cost-effective and safe urban interventions (Kaparias, Ioannis; Bell, Michael G. H.; Dong, Weili; Sastrawinata, Aditya; Singh, Amritpal; Wang, Xuxi; Mount, Bill 2013, Beitel, David; Stipancic, Joshua; Manaugh, Kevin; Miranda-Moreno, Luis 2018).

“50 years have passed since then, and in those 50 years, the common sense that bicycles are supposed to ride on the sidewalk has been established”. Shigeki Kobayashi, Chairman and general director of the Bicycle Promotion Study Group

“It's very ironic, I mean, this is a promotion of safety. The government tries to avoid conflicts between cyclists and pedestrians. So to improve this safety, they promote this education. But the cyclists, if they go to the roadway, obviously their safety gets lower. They may have more risk of conflict against car vehicles. So obviously for women, they don't like that. If they have to ride on driveway, they may not use the bicycle. I think it's a very, very controversial issue, that of safety. ”
Kazuki Nakamura, Associate Professor in Urban Studies, Meijo University

Both the interviewee for the TMG and the one for the MLIT are conscious of this issue. They both underline that the evolution will happen in different stages, as it will take time to create the proper infrastructure. They also argue that some categories are still allowed to ride on the sidewalk - the elderly and children. However, the interrelation between sidewalk cycling and mothers’ care-trips is not addressed, even though the MLIT interviewee recognises that mamachari-riding cyclists will be affected by the measure.

“Yes, it is true that the environment in which bicycles can be ridden easily on pavements has supported the use of bicycles in everyday life. On the other hand, we cannot ignore the accidents caused by the lack of separation between pedestrians and bicycles, so in Japan, it was decided in June 2007 and implemented from 2008 that ordinary bicycles should, in principle, be ridden on the road. On the other hand, in order to avoid danger, bicycles for vulnerable people, such as grandmothers, grandfathers and children, can be ridden on the pavement.” Interviewee, Tokyo Metropolitan Government

“This is not to say that we want to kick out the mamachari's that are currently riding on the sidewalks onto the roadways, but rather we want to create such an environment so that bicycles can ride safely on the roadways, and naturally return to the roadways. Therefore, we can't just ask people to return to the roadway right away. It is also difficult to create a space where people can run safely on the roadway right away, so we would like to do this in stages.” Interviewee, Bicycle Utilisation Promotion Headquarters, MLIT

It is also worth discussing the framing of the problem in terms of “manners” and cyclists’ responsibility for unsafety. This opens the gate for a backlash against cyclists who ride on the

footpaths - many of who are women and mothers, according to interviews conducted by the author (Lagadic, unpublished). Yet, the reasons why this practice exists in the first place, why footpaths are a refuge for many mothers and women who use the bicycle, are not addressed.

Alternative narratives - vulnerable users who need to be protected ; the value of shared space for inclusive cycling

Research in Europe and North America has shown that cyclists tend to break the rules to ensure their own safety when the urban environment and traffic laws do not appropriately secure it (Latham, Alan; Wood, Peter R. H. 2015, Marshall, Wesley E.; Piatkowski, Daniel; Johnson, Aaron 2017, Ihlström, Jonas; Henriksson, Malin; Kircher, Katja 2021). Unruly practices could also be interpreted as an experimentation for safe cycling in city. If they are seen in that way, the policy question then becomes: how can we learn from this practice and make it safe for all road users ?

First, policymakers could have explored the profiles, constraints and lived experiences of 'bad-mannered' cyclists, or footpath cyclists. Exploratory interviews conducted by the author with cyclists in Tokyo (unpublished) suggest that many of those would be women and mothers. Engaging with these lived experiences might reveal that in Tokyo, there are few alternatives to using the bicycle for short trips around the house. Rail transport is not adapted to scattered, chained short trips around one's home. The car, a mode commonly used for care- and household-serving trips in foreign countries (Dowling, Robyn 2000, Schwanen, Tim 2007), is not a practical option in Tokyo: in residential areas, speed limits are low (30 km/h) and traffic signals are programmed to have people stop at every intersection (Pucher and Buedhler 2012). Moreover, to purchase a car, Tokyo residents must provide evidence of access to a dedicated private, off-street parking space for the car, and parking is both scarce and expensive (MPD 2010 in Pucher and Buehler 2012). Finally, as argued by Kazuko Ito (Kawagoe Councillor), when only one car is available within a household, it tends to be used by the man.

The remaining option is walking, one judged to be less attractive by Kazuko Ito (Kawagoe Councillor). Shigeki Kobayashi (BPSG) argues that this is what parents did in the past. To him, the decline in birthrates, associated with innovations in *mamachari* design, made cycling a more convenient alternative to walking, and a way to save time. To him, this trend emerged in the 1990s.

"Bicycles were not an option from the beginning. You either used a baby carriage, rode in a car, or walked with your child in tow. The birthrate was declining, and after 1990, when only two children at most were born, people realised that it would be faster and more convenient to carry two children in the front and the back and ride a bicycle [than to walk]." Shigeki Kobayashi, Chairman and General Director of the Bicycle Promotion Study Group

"I know it's hard to understand, but they cycle because they have no other choice. It's better than walking" Kazuko Ito, Councillor for Kawagoe and member of the AFER

Since the 1990s, successive governments have promoted women's increased participation in the labour force to revitalise Japan's recessing economy (Kano, Ayako 2018): today, 76% of Japanese women are employed (Shambaugh, Jay; Nunn, Ryan; Portman, Becca 2017), while the share of women working had only risen from 52% to 55% between 1955 and 2000, and from 45% to 52% in Metropolitan areas (Hiroo, Kamiyo; Nelson, Lise; Seager, Joni 2005). As underlined by Jun Utsumi (BPSG), working women still remain the primary carer and are time-strained. He sees a link between cycling and women's activities: to him, mamacharis answered the increasing demands on women's time. Shigeki Kobayashi (BPSG) even goes as far as saying that "they have no other choice" due to the gendered division of labour and the lack of alternatives for short trips.

"In the past, (...) men worked and women stayed at home. This division of roles has existed in Japan for a long time. However, recently, women are starting to work more and more, and it is becoming more and more common for mothers to work while their children are taken care of at daycare centers. (...) I feel that there is a link between bicycles and women's activities. I think it would be great if we could create a society where women can work more and more easily." Jun Utsumi, Secretary General of the Bicycle Promotion Study Group (BPSG)

Neither the interviewee for the TMG nor the one for the MLIT deny the importance of mamachari in women's lives ; however, the specific consequences that the narrative of "bad mannered" cyclists could have on this specific group of cyclists are not discussed.

"One of the major factors is that, as I mentioned earlier, there are needs such as shopping and taking children to and from kindergarten and nursery school, and there is a widespread use of mamachari, a type of bicycle that meets these needs. In addition, in urban areas, it is difficult to use cars because of space and parking problems." Interviewee, Bicycle Utilisation Promotion Headquarters, MLIT

Not only are cyclists dependent on the bicycle, they are also vulnerable users as they are riding in an environment that has not been adapted to them. The revision of the Traffic Law in 1970 allowed cyclists to stay safe as the urban space was adapted to automobility. Current cyclists inherit this situation. Bicycles on the footpaths may be a hazard to pedestrians; yet, accidents involving cars are much more deadly. In the current environment, cyclists who ride on the footpaths are not irresponsible traffic offenders, they are trying to maintain their safety.

"Mothers ride their bicycles on the footway when they go shopping, pick up their children from school, or drop off their children at daycare. However, as a non-profit organisation, we believe that sidewalks belong to pedestrians and that bicycles should be ridden on the roadways, so we need to improve the infrastructure to make it safer to ride on the roadways. At the moment, however, mothers use the sidewalks for shopping and going to kindergarten." Jun Utsumi, Secretary General of the Bicycle Promotion Study Group.

Moreover, cycling parents on mamachari vehicles could also be considered to be a particularly vulnerable group. Research from Canada and Australia has shown that cycling with children or while carrying groceries implies specific skills (Bonham, Jennifer; Wilson, Anne 2012, Ravensbergen, Léa; Buliung, Ron; Sersli, Stephanie 2020, Sersli, Stephanie; Gislason, Maya; Scott,

Nicholas; Winters, Meghan 2020), including the difficulty of balancing the bicycle and the lack of agility when transporting children or groceries. Given these constraints, they may not feel safe on the road.

Such a narrative would have led to a different plan: one that acknowledges the individual value of sidewalk cycling, and not only its collective cost in case of accidents ; one that explores and outlines the role of sidewalk cycling in care-mobilities, and values the care work on women on bicycles in cities that have not been planned for them up until now. Transport policymakers are not able - nor expected - to directly tackle the gender inequalities observed in Japanese society. However, they have a duty to acknowledge the social context in which certain citizens - women - cycle : as rightly summed up by Shigeki Kobayashi (BPSG), "rather than debating about whether it is good or bad (...) it's better to think that the bicycle is being used because the child-rearing environment in Japan is so bad".

How would that transfer into concrete, physical planning measures ? This leads us to the third narrative.

4.3. Narrative 3 - The need for separation

These three strategies outline a key measure to support cycling in the future: the development of cycling infrastructure. After presenting policymakers' narratives, the author will discuss whether these infrastructure may answer all users' needs in the same way. Finally, an alternative vision for public space planning will be outlined: one that values and improves the current space-sharing system that led to inclusive cyclist profiles.

Policymakers' narratives - All cyclists would be best served by a separated cycle lane network

As has been outlined in the introduction, a marginal share of Tokyo's streets have been adapted to bicycles. Only 1.6% of the road network displays a form of cycling infrastructure. As a result of past efforts "bicycle traffic space has been secured in area with heavy bicycle traffic and around major sightseeing spots" (TMG 2021). However, these improvements are presented as insufficient, especially given "the recent increase in the importance of bicycles as a means of transportation" due to COVID-19. A key principle for further development is identified: all involved actors should endeavour to "create a space where pedestrians, bicycles and cars are appropriately separated according to traffic conditions" (TMG 2021). The current situation is one of co-existence ; the TMG envisions future Tokyo as a city where pedestrians, cyclists and cars are fully separated.

The development of a quality bicycle network in Tokyo faces a key barrier: Tokyo's very street structure. 60% of Tokyo's streets are below 5.5 meters wide, which limits the potential for infrastructure development without taking space away from cars. This is not, however, presented as an option except in very specific cases. To the contrary, the TMG rather recommends

developing cycling lanes on the footpath. The 'Traffic Space Plan' mentions that, when the road is too narrow, the footpath will be used as a "provisional" bicycle-pedestrian road. While the plan's goal is to put an end to the emergency measure of footpath sharing, it is also recognised that this space-sharing cannot be done without in the short-term.

What the plan does not mention, however, is that only a limited part of Tokyo's roads are actually equipped with a footpath. This is highlighted, for instance, in the local Shibuya ward bicycle plan (Figure 8). However, the coexistence of pedestrians, cars and bicycles in a single space - that is, the current situation on the majority of Tokyo's streets - is not discussed in the plan.

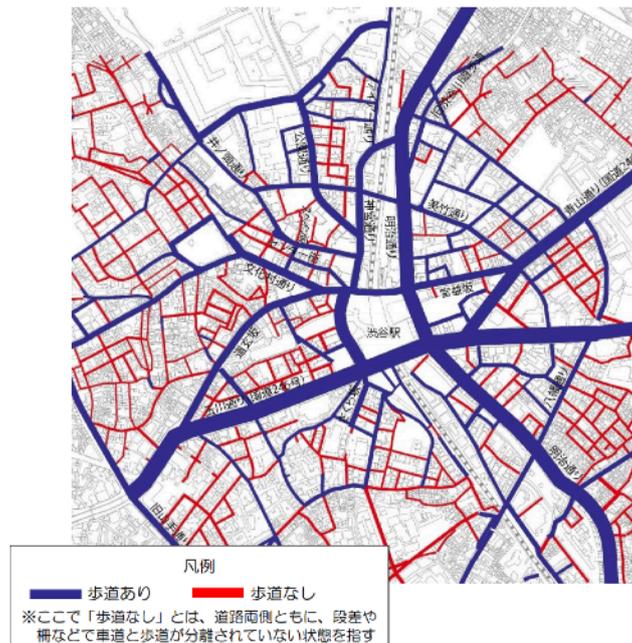


Figure 8 - Map of a neighbourhood within Shibuya Ward. Roads with footpaths in blue, roads without footpath in red. Source: Shibuya Bicycle Plan (Shibuya Unknown)

Deconstructing the narrative - Complete separation is not possible in the short-term, space-sharing leads to inclusiveness

When looking at the visuals that illustrate the ideal cycling neighbourhoods in the 'Traffic Space Plan' (Figure 9), it appears that this vision would be unachievable in the vast majority of Tokyo's existing residential neighbourhoods (Figure 10). Yet, the 'Traffic Space Plan' is presented as a plan for all of Tokyo's streets.

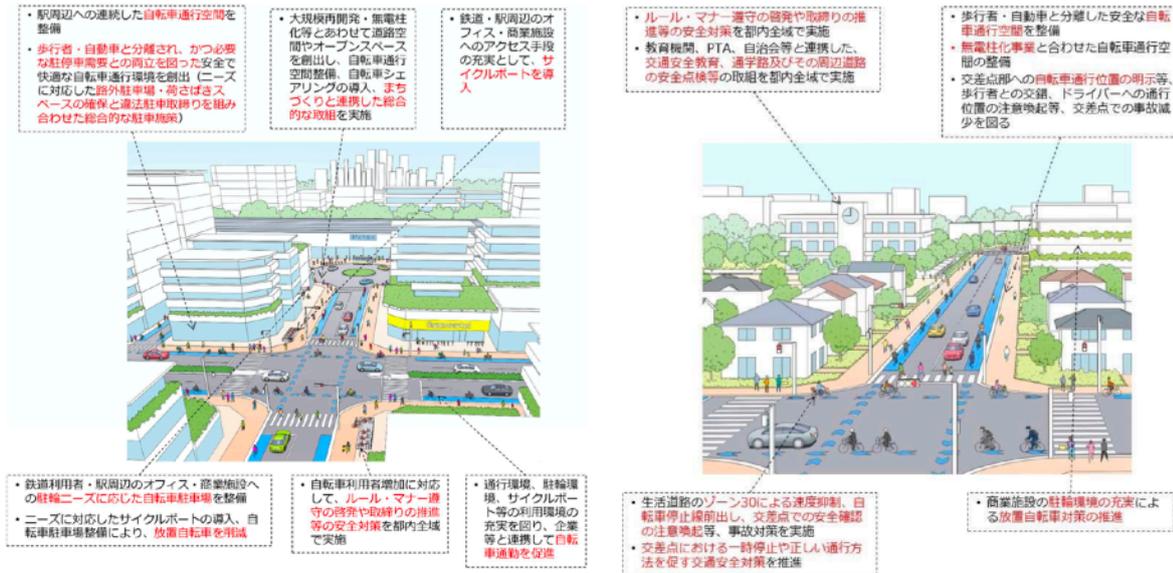


図 5-2 業務・商業地における自転車活用推進重点地区のイメージ

図 5-3 住宅地における自転車活用推進重点地区のイメージ

Figure 9 - TMG’s vision for cyclable business districts and residential districts. Source: Tokyo Bicycle Usage Promotion Plan pp. 98-100



Figure 10 - Residential streets in the Tokyo neighbourhoods of Yanaka (upper left), Naka Meguro (upper right) and Gokokuji (down middle). Pictures by author.

Indeed, the TMG’s goal is to bring the kilometres of roads adapted to cyclists to 900 km by 2030, that is, a 4.8% of the road network. This is a substantial increase from the current 1.6% ; however, it also suggests that it will take time to achieve the separation that the TMG calls of its wishes. ‘Unplanned’ coexistence will endure, and one could argue that it would be more efficiently

addressed by recognising the values of the current space sharing systems, along with its limits : afterall, it has allowed to the development and persistence of a substantial and inclusive cycling practice, with limited government intervention up until now.

The current approach can be explained by the Japanese transport planning culture: according to Dr. Kazuki Nakamura, transport planning in Japan is more concerned with physical infrastructure than with use patterns. The underlining meaning influencing all transport policies is the following: any transport problem has an infrastructural answer. When it comes to cycling, a safe public space is a key pre-requisite. To the interviewee for the TMG, one should also take into account the operational challenges associated with delivering such a plan: the breadth has to be limited in some ways, and certain dimensions need to be prioritised. In the current plans, those were education and infrastructure. However, the author would like to argue that there is a missing piece in this infrastructural approach: an approach based on current practices on the public space, one that would account for the different needs of different groups, including women.

“Japanese planning has more to do with construction, you see. It’s infrastructure planning. That’s also the case for bicycle planning. What we’re interested in is how to introduce bike lanes, how to change roads physically, not (...) the user. That’s probably the reason why the diversity of users is not cared for too much in the planning. (...) Obviously, we [Note: researchers] recognise such an important topic (...). But in planning, that system hasn’t been introduced”. Kazuki Nakamura, Associate Professor in Urban Studies, Meijo University

“When it comes to taking measures, the breadth has to be limited in some ways. In the end, if we strip down the idea of creating an environment for commuting, shopping, and transporting people, the necessary element that emerges is a traffic space or a place to stop to ensure safety. So it is a different understanding from saying that it is not taken into account. ” Interviewee, Tokyo Metropolitan Government

Alternative narrative - Valuing space-sharing while improving the network to answer a variety of needs

Exploratory interviews conducted with cyclists in Tokyo by this author (unpublished) suggested that female cyclists preferred riding on narrow residential streets, even if it implied making a detour. They felt safer on those streets: they are subjected to low speed limits (20 km/h or 30 km/h), and their winding structure works as a traffic-calming mechanism. When riding on large avenues, these same respondents preferred to ride on the footpath. The case of narrow streets is overlooked in the plans ; this is not surprising given that the Grand Design for Urban Development plans for these types of streets to be entirely eliminated by 2040.

Indeed, it also appears that this plan also works against a certain ‘chaotic’ aesthetic ; today, one of the core tasks of the Tokyo Metropolitan Government Bureau of Urban Development (TMGBUD) is to promote « urban renewal that strengthens the city’s international competitiveness » and create urban spaces that have the elegance and multi-functionality

befitting an international business centre » (TMG; Bureau of Urban Development 2016). A wish to display 'global' aesthetics has also been identified by urban researchers studying the neighbourhoods of Shibuya (Morris, Brian 2010) or the renewal of Roppongi (2011). Moreover, while cycling was not a key part of the Olympic strategies, new cycling lanes were created around the stadium, in areas that would be most visible to the world. One can assume that high-quality cycle paths and lanes have become not only a practical, but also an aesthetic features of advanced metropolises, as presented in the Tokyo Grand Design for Urban Development.

To the contrary, other experts, such as Dr. Kazuki Nakamura, see a value in this "chaotic" environment because it supports inclusive cycling practices. When flexibility is allowed, different cyclists can all have it their way: cycle on the road or on a bicycle lane to commute fast, or cycle slowly on the sidewalk to feel safe and make multiple stops. And indeed, space-sharing is now widely promoted in bicycle planning abroad. The UK Department for Transport (2011) defines shared space as "a street or place designed to improve pedestrian movement and comfort reducing the dominance of motor vehicles and enabling all users to share the space rather than follow the clearly defined rules implied by more conventional designs". While many cities of the world experiment with this new system, Japanese cities already have a pre-existing system that sustained its cycling culture.

"A chaotic environment is appropriate. You see, it's quite an Asian way, but it's this chaotic environment that allows cyclists to use a bicycle everywhere, they can create a safer environment. That's probably... It leads to the promotion of more use of female cyclists. I think so. That's why Asian cities have more popularity in bicycle. We have less rules, planning control, you see, so that we allow this flexible bicycle use in the city. It's illegal, but we ignore, somehow, those rules. So that flexibility allows female cycling in cities, so it's quite quite important. So that's why I am just opposed to enforcing cyclists to use the driveway speed. I think it's not good for female cyclists" Dr. Kazuki Nakamura, Associate Professor in Urban Studies, Meijo University

Western researchers have presented shared space as way to return to the pre-automobility city, to urban streets as they were before the mass diffusion of cars. In the 1980s, they were seen as a way to "save old valued practices and human relationships from forces that threaten them with obligation" (Albert, Z. Guttenberg 1982). Today, they allow to recreate "the back lanes or alleys common in the 19th century working class row housing" (Biddulph, Mike 2010). Yet, when these shared spaces are created, when these vernacular streets are brought back to life, conflicts of usage commonly emerge (Barr, Stewart; Lampkin, Sal; Dawkins, Laura; Williamson, Daniel 2021): even when the vernacular space is re-created, the norms that supported its use have long disappeared. For decades, the use of space has been regulated by raised footpaths, kerbs, and markings (Ben Hamilton-Baillie 2008, Petzer, Brett John Mathew 2021) ; removing these markers leaves road users confused. This even led some researchers to wonder whether there could be a cultural inability to share space, from the United Kingdom (Barr, Stewart; Lampkin, Sal; Dawkins, Laura; Williamson, Daniel 2021) to Greece (Nalmpantis, Dimitrios; Lampou, Sofia-Christina; Naniopoulos, Aristotelis 2017).

In Japan, the vernacular city has evolved, but it has never entirely disappeared, and the social norms that support space sharing have endured. This social infrastructure (Martial, Léo; Nakamura, Fumihiko; Miura, Shino 2020) is a resource that could be valued, and harnessed to develop a Japan-specific cycling infrastructure. An alternative narrative would account for the fact that different cyclists may have different needs. Separated bicycle paths are a safe option, particularly efficient to cycle fast and far. However, the option of shared space also has a value: it has allowed *mamachari-riding* women to perceive cycling as compatible with care-trips and domestic-serving trips, a barrier that European and North American local authorities are still struggling to address. This pre-existing system could be greatly improved and made safer, following current guidelines from researchers (Yannis, George; Kondyli, Alexandra; Georgopoulou, Xenia 2014, Hatfield, Julie; Prabhakaran, Prasannah 2016, Liang, Xinyu; Meng, Xianghai; Zheng, Lai 2021), if its value was acknowledged.

Conclusion

This working paper used a feminist theoretical framework to analyse Tokyo's new bicycle promotion strategy. Three questions guided this work. The first two, interrelated questions were: what is the assumed standard for a cyclist in these plans ? Does the policy address the differences between men and women, or across women ? The author presented and deconstructed policymakers' narratives about beneficiaries' socioeconomic profiles and trip motives, and revealed that the variable of gender was entirely overlooked. Women are very much absent for this policy ; the tone is universalist, and measures are presented as having the same expected effect for everyone. The author then moved on to discussing the narratives around these specific measures, so as to explore whether they might, indeed, affect women and men in the same way.

The second narrative was around safety: cycling would create unsafety due to cyclists' unruly , pedestrian-like behaviour ; education would thus be the key answer. This discourse needs to be understood in the context of the current Japanese cycling system: one in which bicycles commonly ride on the footpaths, and where narrow residential roads are shared in a negotiated way between cars, pedestrians, and bicycles. It has been argued that this discourse tended to blame the most vulnerable users on the road, particularly women riding with children as the elderly are still allowed to ride on the footpath. Moreover, this discourse about bicycles needing to be used as a vehicle rather than a form of walk-enhancement disregards the widespread use of *mamachari* vehicles, designed to ease the transport of children and groceries for short trip around one's house.

The third narrative was around infrastructure provision: to ensure safety for all, an end should be put to space-sharing practices, and cyclists should be properly separated from pedestrians and drivers alike. While this is a sound projet, it is faced with many operational barriers, an only 4% of Tokyo's road network should be adapted to bicycles by 2030. It has been argued that Tokyo could

have valued its current space-sharing heritage, and improved it to maintain its gender inclusive cycling practice.

All in all, these narratives appeared to be infused with a pro-growth, care-blind bias. This bias is embedded in institutions, as demonstrated by the lack of gender-specific data in the plans and the value of infrastructure-led approaches rather than people-led approaches. Even when policymakers are fully committed to answering the needs of all cyclists, and open to discussions about gender-bias, institutions frame the policy outcome.

Through this analysis, the author endeavoured to show the value of acknowledging the inequalities found in society when framing policy problems, so as to develop truly inclusive measures. The fact that women's unequal social position was overlooked is by no means unique to cycling policy, or to Japan. It is a much wider issue that is fortunately extensively discussed by both researchers and policymakers nowadays, and one that was welcomed by all stakeholders interviewed.

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