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PUBLIC TRANSPORT GOVERNANCE

Fabio Hirschhorn and Wijnand Veeneman

Introduction

Public transport is an essential service to both users and non-users. It provides an option for people driving on congested roads, for people who cannot – or prefer not to – drive a car, for people who need a means to access educational and leisure opportunities. It is thus also important for the overall population for ensuring that workers and providers of services of varied nature can reach their employment sites, for people who would prefer to see more street space available for other uses than parking, and for those – now and in the future – who can benefit from an alternative that is more sustainable than private cars. In sum, public transport is a vehicle for the delivery of a multitude of public values.

Making public transport work in real life is challenging. Developing public transport systems that constitute an effective transportation alternative for people involves dealing with significant financial, technological, and infrastructure constraints (UN-Habitat, 2013). Nonetheless, it is the governance and policymaking of public transport that constitute the most complex challenge (Marsden & Reardon, 2017; Stough & Rietveld, 1997). It requires linking the diverse perspectives and interests that actors hold in relation to the way in which public transport should work and the outcomes it should deliver – that is, governance needs to ensure collective decision-making and coordinated action for public transport to prioritise and deliver public values.

The magnitude of the governance challenge is illustrated by the crisis involving the global outbreak of COVID-19, which put public transport at a crossroads. Trains, metro, and buses are identified as ‘unsafe’ because of potentially hazardous physical proximity during travel. At the same time, the fundamental role of public transport to users and non-users became more prominent than ever, as it can ensure that essential workers reach their job locations, keeping indispensable services to cities and society running. This ambiguity triggers a number of complex questions ranging from the need to revise subsidy and remuneration of operators, practices in relation to vehicle occupancy and cleaning procedures, the redefinition of routes and frequency of services, to strategies for the planning of future bidding and concessions. Permeating these questions is the intricate decision-making and coordination around a multiplicity of values, such as individual safety, public health, economic development, and sustainability (social, environmental, and economic), all of which are expected from public transport and that governance is supposed to enable.

How to tackle and understand the governance challenge? Traditionally, literature addresses (public transport) governance through the study of governance shifts. These are changes in mechanisms of governance, location of governance, governing capacities, and styles of governance (Kersbergen & Waarden, 2004). These shifts come about to address societal problems that are seen as most pressing, namely growing deficits, pollution, and pandemics, and/or due to emerging influential theories, that is, neoliberal ideals and networked governance, for example. Indeed, public transport governance studies historically look at how the introduction or reform of certain formal governance frameworks can help or hinder the achievement of diverse public values, including sustainability, accessibility, and safety (Hirschhorn et al., 2019).

Nevertheless, this approach is limited in its ability to reveal complexities involved in the design and implementation of public transport governance, thus being insufficient to equip decision-makers in their task of coordinating collective decision-making for the delivery of public values. At least two important considerations explain why this is the case.

First, most existing analyses tend to approach governance shifts from a fragmented perspective, setting apart a specific element of governance to estimate their isolated impact on performance, disregarding interdependencies between values. However, public values may not be aligned with each other, and preferences may change over time, generating potentially tough trade-offs. Promoting one value influences the ability of the system to deliver others, and managing trade-offs between values in political decision-making requires recognising these interdependencies.

Second, governance shifts should not be seen as changes in formal frameworks exclusively and taking place in a vacuum. Other dimensions of governance processes – such as the role of informal institutions, political steering, actors' agency, power relations, and framing in political decision-making – and the way they interact with formal frameworks are often neglected. However, they are also crucial explanatory factors of how governance shifts occur and the results they produce, including the public values that are promoted and safeguarded.

This chapter tackles the public transport governance challenge by answering four questions. First, it clarifies *what* is meant by public transport governance. Subsequently, the chapter addresses the question of *why* public transport governance is complex and reviews academic works explaining *how* public transport governance shifts deliver public values. Based on this stock-taking exercise, the chapter concludes by looking ahead and answering the *where* question – that is, it proposes directions for policy and academia.

What is public transport governance?

To understand public transport governance better, it is first important to clarify what it means. This is the objective of this section.

The term public transport (hereafter PT) is used in this chapter to designate all collective modes of land passenger transport services available to the general public on a non-discriminatory and continuous basis. In most cases, PT works according to predetermined routes, timetables, or frequencies, and access to it depends on the payment of fares. The word 'public' in the term is thus associated with the non-discretionary possibility of access to these services and not with the ownership nature of the transport operator – that is, PT services can be offered by either public or private firms. Finally, the chapter considers PT services offered within the urban context, linking the cities to the surrounding hinterland and providing links between cities.

From a systemic perspective, PT can be conceptualised as a complex sociotechnical system in that it comprises both complex physical-technical systems and networks of interdependent

actors (Bauer & Herder, 2009). PT is made up of interacting and interdependent elements such as infrastructure, technology, finance, and actors (individual or collective) and is supposed to fulfil a broad societal function – passenger transportation. For PT to work well, the systems that allow the planning and provision of services are necessary, as well as the systems that make the decisions on said planning and provision of services (White, 2017) (see also Chapter 21).

Each actor involved in PT – including politicians and public officials, operators' managers, drivers, users, and non-users – has a different perception of reality; actors have different opinions and preferences on the way PT systems and its subsystems should work and the functions they should fulfil. Because of these differing interests and perceptions, cooperation and coordination between actors cannot be taken for granted. This is the space for governance.

Broadly speaking, governance, and governance theories, are concerned with creating and examining the ways in which societies create and uphold norms and instruments to deal with matters that require coordination in the pursuit of collective interests (Bevir, 2013). It involves the formal and informal structures and processes shaping the interactions between public and private actors in collective decision-making and through which they coordinate practices in view of predefined goals (Hufty, 2011). Analytically, governance can manifest itself in three main facets, politics, polity, and policy (Treib et al., 2007). First, governance has a political dimension, which concerns player constellations, power, and conflicts in the political process. Second, the polity dimension of governance concerns the structures and rules that influence the players (but can also be shaped by them), that is, the institutional environment. Finally, the policy dimension refers to the instruments and content of policies designed and implemented in the sector.

Therefore, the governance of PT concerns the coordination of the decision-making processes to identify and promote the collective goals to be achieved in connection to PT as a policy area. Accordingly, PT governance establishes the allocation, amongst diverse (public and private) actors, of the roles and responsibilities – along with the needed resources and discretionary ability (agency) – for the design and implementation of PT policies and services.

Why is public transport governance complex?

The previous section clarified that, broadly speaking, (PT) governance is about the coordination of collective decision-making to achieve predetermined public values. It involves the identification of goals, the development of the policies necessary to reach those goals, and the allocation of powers and responsibilities across actors as well as the attachment of resources to those policies. But why is PT governance complex? This section addresses this question.

Public values

The collective goals that governance is expected to promote and secure reflect the public values held by the multiplicity of actors that have a stake in the functioning of PT. Public values thus represent the principles defining government's responsibilities and rights, along with the obligations of citizens, regarding different policy areas; they constitute the purposes of stakeholders and their networks in relation to that sector (Jørgensen & Bozeman, 2007; Koppenjan et al., 2008).

The precise formulation of a public value varies according to stakeholders' perspective and interests, existing problems, and policy arenas (de Bruijn & Dicke, 2006). Since every actor involved in PT governance processes has a limited perspective and set of priorities in relation to what PT is supposed to realise, the definitions of public values change in terms of time and

context. Moreover, as further detailed in the following, achieving goals such as environmental sustainability may affect the ability of PT to deliver other goals, such as greater efficiency (see also Chapter 8). This means that public values may not be aligned with each other, and the conflict between public values entails tough trade-offs for decision-makers (Stewart, 2006; Veeneman et al., 2009). These dynamic interdependencies are the main reasons behind the challenge for PT governance.

The challenge for public transport governance

Sociotechnical systems such as PT can be thought of as “vehicles through which important public values are delivered” (Steenhuisen et al., 2009, p. 491). As such, PT is not immune to the complexities alluded to in the previous section. Values attached to PT are multiple and varied in nature, including greater environmental sustainability, greater accessibility to work or leisure, efficiency in the production of the services to reduce the need for public subsidies, and time savings.

Not only is the set of values that need to be taken into account in PT decision-making multifaceted, but by definition, these values drive two conflicting types of objectives: some values are achieved by increasing the number of passengers in PT, and other values are achieved by increasing the spatial availability of PT (Walker, 2008). Promoting each of these objectives means negatively affecting the other. In periods of economic hardship, for example, authorities may prioritise the value of efficiency above accessibility, reducing PT spatial coverage and/or service frequency to decrease the need for operational subsidies. This decision impacts the constituencies that will have less access to PT for the benefit of the public purse. On the other hand, if in a different moment, there is a push for greater accessibility to PT in suburban areas, routes will have to become longer and the number of bus stops will be increased, affecting operational costs and possibly influencing efficiency.

Real examples of these interdependencies between values attached to PT are numerous. The opening of the market for rail transport in the United Kingdom brought changes in the efficiency of the operators but also unintended consequences in relation to safety and pricing (Department of Transport, 1993) (see also Chapter 14). Furthermore, the deregulation in bus services (outside London) has also been linked to lower quality of services and declining ridership levels (see also Chapters 1 and 13). This has led government to introduce a series of legislative measures shifting the emphasis over time, from a focus on competition as a major policy aim to one in which partnerships between operators and local transport authorities are encouraged as a means to support for service coordination (White, 2018). The introduction of tendering in Santiago triggered a host of changes in the behaviour of operators that asked for constant rethinking of the best way in which the contracts should be set up; a strong initial push for competitive tendering is now followed by a reconsideration due to perceived downsides (Galilea & Batarce, 2016). Likewise, different transport modes offer different values on different spatial scales, and, as such, they are valued differently by municipal, metropolitan, and national governments that might stimulate different investment decisions, as shown in case studies from Australia, the Netherlands, and South Africa (Veeneman & Mulley, 2018). Finally, and further complicating this scenario, there is also evidence that even goals linked to ridership objectives may not always be aligned with each other. In Madrid, in the 1990s and 2000s, for example, PT modal split and cost-recovery levels moved in opposite directions after the introduction of regulatory reforms (Vassallo et al., 2009).

This is where governance plays an important role, linking and coordinating the multiple perspectives on public values. The corporate governance of the railway company makes sure

that a decision of a planner to extend the services is financially feasible. It links the perspective of the planner to the perspective of the finance department. Market governance lets the price of the service convey the costs to the person deciding to use the system. It links the perspective of the customer to that of an entire supply chain. Safety governance requires train drivers to keep safety of the traveller a top priority. It links the perspective of the driver to that of passengers and their families. As such, governance can be seen as the integrating factor, widening the value and system perspective of the decision-maker, linking them to other decision-makers in fragmented multiactor systems.

Research can identify, help understand, propose, and explain possible safeguarding mechanisms and management strategies to deal with public values throughout the entire governance process, starting from the identification of goals and moving through the development of the policies, the attachment of resources to those policies, and the analysis of the results achieved. In other words, analysing and understanding PT governance is critical for decision-makers to manage and balance values' trade-offs. The next section examines the way in which most literature has worked to equip decision-makers by revealing the link between governance and the achievement of public values in PT.

How does public transport governance deliver public values?

Having clarified the meaning and the challenging task of PT governance in the previous sections, the chapter moves to addressing the subsequent question of how PT governance can eventually deliver public values.

Governance shifts

Kersbergen and Waarden (2004) explain that there is a tendency across disciplines to study governance by focusing on shifts; that is, literature across different fields, the authors claim, describes and analyses changes taking place in the forms and mechanisms of governance, the location of governance, governing capacities, and styles of governance. The multilevel governance framework, for example, describes a shift in the location of governance. It acknowledges the multiactor dispersed policymaking performed within and across politico-administrative institutions located at different territorial levels (Stephenson, 2013). The new institutional economics identify changes in governance mechanisms whereby actors coordinate actions via hierarchy, market, and hybrid structures, depending on the transaction costs each form entails (Williamson, 2010).

These shifts in governance can originate from changes in the type of problems with which societies are confronted and from influential ideas and theories. Literature on networked forms of governance, for example, suggests that the nature of unruly policy problems, such as growing congestion and pollution and global warming, require elected officials and public managers to develop new governance skills and tools. They are expected to develop trusting and collaborative relationships with a host of governmental and non-governmental actors to complement or substitute governance through hierarchies and markets (Sørensen & Torfing, 2009). Concerning shifts originated by influential ideas and theories, Bevir and Rhodes (2016) indicate that the shift for a greater emphasis on networks instead of markets and hierarchy can be traced back to the rise of neoliberal ideals in the 1970s and 1980s, giving primacy to values like efficiency and effectiveness, and the associated reforms under the New Public Management (NPM) label.

Examining governance shifts in public transport

In the field of PT in particular, governance studies have also historically worked by examining shifts. In the 19th century, Chadwick (1859), interested in the economic efficiency and fare levels in the English railway sector, compared the potential effects of shifts between competition for the field – namely competition to have access to a market or an area to deliver PT services – and competition within the field – related to the competition between different transport providers operating in the same market.

Since the 1980s, governance shifts, as well as their analysis, have proliferated in PT. This has been the case both in response to particular problems which need to be tackled – undesirable continued growth of public subsidies and declining passenger numbers – and in the wake of influential ideals and theories – the neoliberal ideals operationalised in NPM reforms, as well as the theory of contestable markets (Baumol, 1982) and competitive tendering (franchise bidding) as a regulatory mechanism for monopoly operations (Demsetz, 1968). As a result, efficiency became the key public value of PT driving governance shifts.

The shifts in PT governance in the last decades primarily involved experimentation with mixes of deregulation (reducing the number of rules to which transport operators are subject in the market in which they operate, resulting in greater freedom to define service characteristics), liberalisation (allowing other operators, in addition to the incumbent, to access the market), and/or privatisation (transference of the ownership of a company or agency from the public sector – such as the national or local government – to the private sector) (van de Velde & Hirschhorn, 2021). In the European context, for example, these shifts first became prominent in the United Kingdom, where the long-distance coach sector was deregulated in 1980 and local and regional bus sector outside London too, in 1986. The British government also introduced competitive tendering in the railway sector (known as railway “franchising”) in 1994. Other reform experiences with competitive tendering increased within the bus sector – in London (1984), Copenhagen (1991), Sweden (1989), France (reform of contracting in 1981 and stricter tendering rules in 1994), and the Netherlands (2001).

The literature in the field of PT governance has since been built on a body of work to understand if and how governance shifts involving these mixes can promote or hinder diverse performance goals in PT (Hirschhorn et al., 2019). In these analyses, authors describe and compare the different ways in which tasks and responsibilities are allocated amongst actors in the PT sector. Their aim is to investigate how such allocation (or changes thereof) may translate into variations in levels of performance indicators such as operational costs, ridership, modal split, or user satisfaction.

From an analytic perspective, this academic work can be mapped and grouped according to the type of task and responsibility being shifted across the three levels of PT management and control – strategic, tactical, and operational (van de Velde, 1999). The ‘strategic level’ refers to deciding on public transport ‘aims’ such as policy goals in terms of accessibility and modal share. The ‘tactical level’ refers to service design (routes, frequencies, fares, vehicle design, etc.), that is, determination of ‘means’. The ‘operational level’ refers to operational management, for example, crew and vehicle rostering or facility and vehicle maintenance.

A first crucial dichotomy in these studies refers to the distinction between PT systems based on competitive tendering of monopoly rights by a transport authority and those systems based on free market competition (van de Velde, 1999). In authority-initiated regimes, governments have the legal monopoly of initiative in the sense that autonomous market entry is legally impossible and all production or market entry is the result of choice of the authority to produce or request the production of services. In turn, in market-initiated regimes, the supply

of transport services is based upon autonomous market entry with more or fewer regulatory checks at the entrance. Most studies concerning this strategic-level characteristic of PT are concerned with identifying which of these systems is most efficient or how ridership levels are affected (see Cowie, 2012; Sakai & Takahashi, 2013).

Concerning analyses of governance shifts in elements of the tactical level of PT, issues such as the use of awarding competitive mechanisms or the contractual allocation of risks and responsibilities frequently appear as the object of studies. Authors investigate the cost savings that are linked to the use of competitive tender and negotiated contracts and differences connected to the use of gross-cost and net-cost arrangements (see Filippini et al., 2015; Zhang et al., 2015). Another tactical governance shift frequently examined concerns changes in fare policies, especially the introduction of integrated fare systems, and how this can help improve ridership levels (see Abrate et al., 2009; Sharaby & Shiftan, 2012).

Finally, concerning governance shifts in the operational level, studies mostly focus on variations in the ownership nature of transport operators. Authors seek insight into whether publicly owned or private operators perform better in terms of values such as technical efficiency or customer satisfaction levels (see Roy & Yvrande-Billon, 2007; Swarts & Warner, 2014).

Where to? Ways forward in the practice and study of public transport governance

This final section critically reflects on the previous sections. The next subsection suggests guiding principles that can allow decision-makers to better understand, design, and conduct PT governance. This is followed by an opportunity for academics to support decision-makers in their task.

The need to recognise complex interdependencies between values

There is a gap *between* the current mainstream academic work relating to PT governance and the actual functioning of governance in reality. Existing analysis tends to approach governance shifts from a fragmented perspective, setting apart a specific element of governance to estimate their isolated impact on a single type of performance. Discussing who initiates service delivery, private or public actors, for example, is just a single feature in the much wider governance and decision-making context; furthermore, as described previously, it is one that is mostly analysed from a perspective of one value: efficiency.

However, when looking at governance, a holistic approach appears more relevant. A governance system needs to be set up and function to deal with a wide range of values that, as highlighted in a previous section, may change over time and may not be aligned with each other. Due to the dynamic conflict between public values, decisions targeting one value will most likely influence the ability of the system to deliver others. Therefore, designing governance is an exercise in dealing with complexity. Rather than avoiding it, decision-makers should embrace it. Governance design and functioning are incomplete if not recognising these interdependencies to account for and manage such intricacies. The broader literature on political science and public administration offers insights that help in elaborating upon some guiding principles to support in this task. PT governance can follow a whole-of-values, adaptive, and context-aware approach.

A whole-of-values approach refers to the importance of recognising and taking into account *ex ante* the entirety of public values potentially affected by a governance shift being planned, as well as the interdependencies between these values (de Bruijn et al., 2004). Decision-makers

should endeavour to address head on the interdependencies and conflicts between diverse goals, making them explicit from the policy design and planning stage. The aim is to ensure a systematic and integrated vision of PT and related policy areas rather than the usual fragmented ‘system of parts’ approach. One mechanism to enable this effort for completeness can, for example, be the promotion of further communication across government departments working separately to develop policies on seemingly separate issues that, in fact, are interconnected. Likewise, having interdisciplinary teams that include individuals with backgrounds other than transport can also be valuable (Hirschhorn et al., 2020).

However, whilst advancing the need for a whole-of-values vision, it is necessary to accept that cognitive and resource limitations are inevitable and affect governance and policymaking. It is not feasible to expect that policymakers can have full *ex ante* insight into the totality of values affected by a governance design decision, and perhaps ‘muddling through’ is not only the single feasible approach but also the most effective one (Lindblom, 1959).

This is the reason an adaptive approach to governance, the second principle, is important. As delineated here, an adaptive approach complements the whole-of-values vision by proposing that decision-making should strive to find a middle ground between an all-encompassing approach – that disregards cognitive and resource limitations – and a fragmented and incremental view – that disregards the complex interdependencies between values. Adaptability thus entails being able to adjust not only to changing circumstances (the dynamic preferences and conflicts between values) but also to cognitive and resource limitations, allowing decision-makers to approach governance design and policymaking in a structured and focused manner, that is, developing a systematic *ex ante* analysis focused on selecting most relevant issues at stake, filtering and examining only strategic ones within the particular context. In other words, unable to review all the existing values and interdependencies at play, and seeking to do better than merely thinking one or two steps ahead, decision-makers can use their cognitive and time resources in first deciding amongst fundamental factors to be analysed – a higher-level scanning – and then examining in detail only the options within the chosen approach (Etzioni, 1986).

An adaptive approach can combine elements of complex long-term planning with incrementalism, always having a set of strategically defined societal goals in the backdrop. This can be operationalised in a number of measures, such as: (i) strategic problem structuring definition; (ii) recourse to the opinion and input from a broad set of stakeholders – from different government departments as well as from outside government; (iii) experimentation in pilots and living labs of different scales; (iv) the combined use of diverse meta-governance strategies, mixing more or less hands-on and direct or indirect governance strategies; (v) the use of flexible policy instruments that can be tweaked or replaced based on empirical knowledge gained over time; and (vi) mitigation instruments that can coexist with formal frameworks and compensate for their partial unintended effects without requiring completely overhauling them (Etzioni, 1986; Kemp et al., 2007; Sørensen & Torfing, 2017).

The third and final principle, rich context awareness, is a necessary condition of the previous two. Context awareness recognises that policy planning and decision-making processes always take place in a specific context, and context matters, because it turns (or fails to turn) causal potential into causal outcome (Pawson & Tilley, 1997). PT governance involves designing and implementing rules and processes that do not land on a clean slate; path dependencies, interests of incumbent actors, existing logics of action, and shared understandings play a role in determining the solutions proposed for and the eventual functioning of PT systems (Hirschhorn, 2020). Likewise, broader and much more complex socioeconomic trends or shocks in which the governing policy regime operates – including demographic events, pandemics, economic cycles – make a difference as well (as dramatically shown by the case of COVID-19). This means that

single policies or specific formal institutional frameworks transferred between countries or cities, or reattempted in a different time, will not necessarily work the same way. Decision-makers must be sensitive to context when designing and changing governance rather than blindly following existing templates. Only this way can they explicitly and *ex ante* take stock of the most strategic values at stake, as well as their potential conflicts, in an adaptable manner, looking for the best design to promote the desired values and manage trade-offs.

The need for a more comprehensive view on governance

Academia can have a pivotal role in supporting decision-makers in recognising the complex interdependencies between values to implement a whole-of-values, adaptive, and context-aware approach to the governance of PT. To this end, scholars have to address some gaps in the way this topic has been dealt with so far. This research opportunity is further detailed in this subsection.

Indeed, there is at least one important gap *in* current mainstream academic work in PT. This lacuna refers to the somewhat limited way in which the concept of governance has been understood and operationalised in most analyses in the field. When looking at governance shifts, studies focus primarily on how organisational elements of PT systems may influence performance outcomes. Whilst valuable, these efforts employ an overly narrow view of governance, restricting analyses to the effects brought by governance shifts in formal institutions – the set of formal rules that are created, communicated, and enforced by official channels, for example, constitutions, laws, and contracts (Farrell & Héritier, 2003; Helmke & Levitsky, 2004). In other words, analysis emphasises one portion of the polity dimension of governance only, neglecting issues such as the role of informal institutions, political steering, actors' agency, power relations, and framing in political decision-making.

Nevertheless, whilst analytically distinct, all dimensions of governance are empirically intertwined, and they do not work or produce effects separately. The interactions between these dimensions are decisive in the way collective decision-making processes develop, being crucial for the outcomes that are achieved. The interplay between elements across politics, polity, and policy dimensions vary according to the social and economic background in which they occur and thus depend on how actors (individual or collective) 'play the game'. Institutions constrain and enable actors by facilitating or hampering certain actions and outcomes but can also be shaped according to how these actors interpret and enact them (Mahoney & Thelen, 2010). Evidence shows that informal institutions may, alongside formal ones, enable better PT planning and integration with land use policies, and key leaders can have a pivotal role in championing and enacting PT solutions and governance shifts (Hirschhorn et al., 2020; Hrelja et al., 2017).

One crucial consequence of this multidimensional and contingent character of PT governance is that there are often important discrepancies between the imagined institutional design and their actual implementation and functioning. Recognising these discrepancies and, more importantly, understanding why and how they emerge is a challenge. However, the prevailing approach to the understanding and design of PT governance, described in this chapter, is unable to fully support decision-makers in grappling with these more complex questions of governance.

The study of shifts in the forms, locations, and capacities of governance should be complemented with analyses that consider issues such as the role of informal institutions, political steering, actors' agency, power relations, and framing in political decision-making. Whereas in other disciplines, especially in the social sciences, these topics have long been in the agenda (see Allison, 1971; Emirbayer & Mische, 1998; Sabatier, 1991), only recently have they become

more salient in PT (see Isaksson & Heikkinen, 2018; Reardon & Marsden, 2020). Therefore, there are clear opportunities for extending (not replacing) current research approaches by engaging with and benefiting from the insights produced by other disciplines in the social sciences. Understanding the dynamic interplay between specific actor constellations (with particular value preferences), policy instruments, steering strategies, and institutional environment (formal and informal rules) is key to improve governance design and understand what the possible effects of governance shifts can be.

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