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article

How street-level bureaucrats use conceptual systems to categorise clients

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This study analyses how street-level bureaucrats' categorisation of citizens is embedded within conceptual systems. We observe the process of categorisation as embedded in cultural schemata used by street-level bureaucrats. We provided vignettes to 40 teachers in São Paulo public schools to observe how they categorise similar behaviours of students within different social contexts. We then determined if there were differences in the systems of categories created and actions proposed to deal with similar behaviours in different contexts. The data showed that, depending on the way in which context triggered the teachers' system of categorisation, distinct actions were proposed. These different actions produced different types of deservingness that, in the case analysed here, are related to actions inside or outside the school. These findings have important implications for policymakers in ensuring more equal access to services for students requiring additional support in the classroom.

Key words policy implementation • street-level bureaucracy • categories • relational-schemata

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Introduction

Social policies are based on the categorisation of citizens, considering their eligibility and the levels of benefits and types of services to which that they are entitled (Mohr, 1994; Schneider and Ingram, 2005; Stone, 2005; Møller, 2009; Altreiter and Leibetseder, 2015). The categorisation process occurs during policy implementation, when street-level bureaucrats must decide who gets what (Oorschot, 2008; Lipsky, 2010; Tummers and Bekkers, 2014) and then activate different types of official and unofficial categories (Harrits and Møller, 2013). The uses of categories by street-level bureaucrats generate different types and levels of distribution and deservingness, meaning the way the state treats differing groups of needy citizens (Oorshot, 2006;

Lipsky, 2010; Epp et al, 2014; Altreiter and Leibetseder, 2015; Tummers et al, 2015; Terum et al, 2018; Pedensen et al, 2018; Brady, 2018). Thus, the analysis of the uses of categories by street-level bureaucrats contributes to understanding how social constructions affect welfare policy delivery (Thomann and Rapp, 2018). Notwithstanding classic studies such as those by Schneider and Ingram (2005), Stone (2005) and Yanow (2003), research analysing the construction and use of categories by street-level bureaucrats is still scarce (Harrits and Møller, 2011; Raaphorst and Groeneveld, 2019).

Throughout this article, we advance the idea that scholarship might benefit from understanding categories as being embedded in conceptual systems (Lakoff, 2008). For instance, street-level bureaucrats who classify a client as 'mother' might engage in a certain range of actions and treatments. In contrast, 'working mother' or 'single mother' are likely to be associated with different actions. We suggest that street-level bureaucrats apply several informal and interconnected categories to any given concrete situation. The individual's perception of this structure of categories is ultimately related to the actions suggested to clients. Thus, by exploring these associations, we provide a novel approach to eliciting and analysing the backgrounded informal categories used by street-level bureaucrats.

Cognitive sociologists have explored how individuals associate categories and mobilise these associations in daily activities (Hunzaker and Valentino, 2019). For that purpose, this research stream has advanced the concept of 'cultural schemata', as socially shared patterns of cognitive associations. This concept helps explain why certain categories are frequently used in association with others, as well as the contextual triggers that might explain why a specific category is mobilised (Strandell, 2017).

Empirically, we analyse the process of categorisation developed by teachers, classic types of street-level bureaucrat, when interpreting the behaviour of similar students within different social contexts. Previous research has proposed that teachers are known for 'categorising' students, leading to differential treatment (Maynard-Moody and Musheno, 2003; Harrits, 2019a), but they usually do not observe categorisation vis-à-vis cultural systems.

Using vignettes with teachers from public schools in Sao Paulo, Brazil, we analysed whether there are differences in the systems of categories created and actions proposed to deal with similar behaviours in different contexts. We analyse these actions based on the idea of different types of deservedness, in which some students are directed to services inside the school and education system, while others are directed to services out of school, meaning a more complex situation. The difference between in and out highlights the distinction teachers make about the complexity of the case and their (in)ability to take action. It also highlights the difference between cases that should be treated inside the school and those who have to be sent out of the school.

Based on the codes associated with responses obtained, we provide factor analyses in order to explore the cognitive schemata associated with each vignette. This analysis allowed us to understand the informal categories that emerged, as well as how these categories are associated with each other.

This article brings three contributions to the literature. First, we suggest that cultural schemata are a theoretical perspective that might help scholars to understand how categories are embedded in complex conceptual systems. Second, we provide a novel methodological approach to formalise culture. Finally, we present substantive insights into how clients might be led to actions that differ in terms of treatment.

The article is organised as follows. First, we present the theoretical discussions about categories in policy implementation and cultural schemata. Second, the study's context, data and methods are recounted. In the third section, we analyse the uses of categories and actions. In the fourth section we present the discussions, before ending with concluding remarks.

Street-level bureaucrats' categories and schemata

Street-level bureaucrats' categories

Policies are composed of rules that organise types of citizens and the corresponding services delivered to them (Schneider and Ingram, 2005). Differentiation between citizens, as proposed by policy rules, are necessary, as different types of people require distinct types of services (Thomann and Rapp, 2018). The differentiation of citizens is affected by the way they are categorised into the different types of categories proposed by rules and policies. Categories carry trajectories rooted in society while producing substantive consequences for the way citizens are treated by the state (Mohr, 1994; Zacka, 2017; Møller and Stensøta, 2019). As access to public services depends on a person's institutional position within these categories (Mohr, 1994), such categories produce citizenship and legitimacy (Zacka, 2017) by identifying someone as an individual with certain needs, able to make certain demands, and with certain rights (Mohr, 1994; Altreiter and Leibetseder, 2015). Thus, the process of categorisation constitutes groups with different types and degrees of access – included, excluded, central, and marginalised citizens – institutionalising social, economic and political cleavages (Schneider and Ingram, 2005; Altreiter and Leibetseder, 2015) and deservingness (Oorshot, 2006; 2000; Tummers and Bekkers, 2014; Jilke and Tummers, 2018).

The categories proposed by policies never operate autonomously and depend on state agents to be implemented (Møller, 2009). State agents, studied using street-level bureaucracy theory, play the role of transforming official and abstract categories into concrete processes through their daily interactions with citizens (Prottas, 1979; Lipsky, 2010) and, in doing so, operationalise categories that evaluate each specific situation to define who gets what, when and how (Oorschot, 2008; Lipsky, 2010).

The process of categorisation is based on both official and unofficial categories. The official ones are those proposed by policies and regulated systems. Street-level bureaucrats include unofficial categories into the categorisation process for several reasons. First, concrete situations are more complex than those predicted by formal rules. As a consequence, street-level bureaucrats apply unofficial categories in order to frame, select and organise contextual information relevant to decision making (Harrits and Møller, 2013). Second, and related to the first reason, street-level bureaucrats often assess and produce citizens' types and degree of deservingness based on tacit and contextual data and on how they trust citizens (Møller, 2009; Altreiter and Leibetseder, 2015; Tummers and Bekkers, 2014; Thomann and Rapp, 2018; Davidovitz and Cohen, 2020). These assessments often entail applying unofficial categories into concrete situations. These unofficial categories are often based on how bureaucrats assess different types of deservedness, in which clients are entitled to different types and degrees of services even when presenting the same demand (Tummers and Jilke, 2018; Thomann and Rapp, 2018). One example can be seen

when teachers decide that some students deserve to have extra time and attention because they are 'hardworking', even if they already have better assessments than the others. Third, street-level bureaucrats are embedded in collective cultures (Harrits, 2019a; Harrits and Møller, 2013), which leads to the sharing and internalisation of cultural schemata.

Throughout this section, we have emphasised the centrality of categorisation to street-level bureaucrats' daily activity. In the next section, we will suggest that single categories might be analysed within systems of categories. For instance, when we consider the concept 'chair', it is given different meanings, depending on the set of concepts in which it is included. A 'chair' that comes together with 'sofa', 'coffee table', and 'salesperson' is understood to be merchandise in a furniture store. In contrast, a 'chair' that is surrounded by children circling around while a song plays is a device in the 'music chair' game. Consequently, we suggest that meaning attributed to concepts depend on wholistic cognitive model (Lakoff, 2008).

Categories and cultural schemata

Within this section, we will propose that while categories play a central role in understanding Street-level Bureaucrat-client relations, it is worthwhile grasping how sets of categories are associated under cognitive and cultural schemata. For that purpose, we will explain the concepts of cognitive schemata, followed by cultural schemata. Cognitive schema is defined as the cognitive representation of a set of elements' recurring patterns. This representation emerges as individuals experience the external environment's recurring patterns (Strandell, 2017). These structures emerge as individuals amass experiences and internalise patterns of associations into networks of concepts. These concepts entail beliefs, attitudes and behaviours, arranged into relational structures. In addition to representing the external environment, cognitive schemata are also associated with processing mechanisms, that is, the ways in which individuals act given external environmental stimuli (Quin, 2017). For an illustrative example, consider Figure 1. When a person hears the word 'bird', she usually associates it with a prototypical representation (Shepherd, 2011). The structure on the left side of the figure depicts a prototypical cognitive schema for 'birds', where the concepts 'animal', 'feathers', 'flies', and 'wings' are associated with one another and depict an

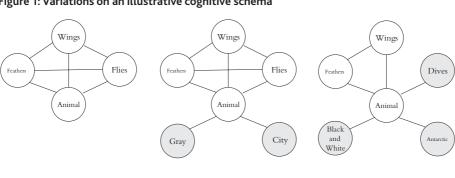


Figure 1: Variations on an illustrative cognitive schema

Source: Strandell (2017), reproduced with the author's permission

Prototypical Bird

Dove

Penguin

abstract notion of birds. A prototype is a representative of a category (Rosch and Lloyd, 1978). The middle structure depicts a cognitive schema associated with doves. This structure is similar to the birds' prototypical cognitive schema, while adding two additional concepts: 'city' and 'gray'. Hence, by extending the original prototype to include two additional elements, doves become a more specific concept of what denotes a 'bird'. When we compare the cognitive schema related to a penguin (on the right), it is possible to observe several changes vis-à-vis the original prototypical cognitive schema for birds: penguins dive (they don't fly), and 'diving' is usually not associated with 'wings' or 'feathers'. The cognitive schema associated with penguins is distant from that which is associated with prototypical birds. As a consequence, 'doves' will receive a higher odds of being associated with 'birds' than with 'penguins'.

A direct consequence of conceiving cognitive schemata as an internalised system of concepts is the idea that, given a complex and novel situation, individuals will add assumptions in order to generate sufficient meaning. Researchers of cognitive schemata propose that contextual elements trigger alternative associative structures (Strauss and Quinn, 1997). Hence, individuals might infer Y whenever they perceive X in a given situation, regardless of whether Y is present or not in the situation. Whenever individuals reveal the deployment of implicit, taken-for-granted assumptions in order to allow for interpretation, it is illustrative of hidden concepts that suggest lasting cognitive schemata (Strauss and Quinn, 1997). Following the 'connectionist model', the extant literature suggests that cognitive schemata might be represented as a network of concepts, comprising explicit and implicit entities (Strauss and Quinn, 1997; D'Andrade, 2005). In the example illustrated above, if 'wings', 'flies' and 'feathers' bundle together, then individuals are likely to assume that if an animal has feathers and wings, it can fly. Along the same line, we would expect individuals to take for granted that 'wings' are associated with 'flying', rather than 'diving'. While 'flying' is relatively highly connected to other concepts within a bundle of concepts, 'diving' is a peripheral concept. More formally, a category is likely to be more salient the more it is embedded in cohesive areas of cognitive schemata.

Organisational scholars have identified the challenge of explaining how individuals' interpretations of the environment converge into collective understandings. The lack of collective interpretations would lead to a failure to take concerted action. In his early writings, Weick (1969) identified that individuals also benefited from organisations' causal maps, which allowed ambiguity reduction and hastened the sensemaking process. Later, Daft and Weick (1984) suggested that organisations have emergent cognitive systems that go beyond the aggregation of individuals' interpretations. Even if specific individuals come and go, organisations' cognitive systems endure (Daft and Weick, 1984). In this article, we suggest that cultural schemata play an important role in supporting the convergence of individuals' interpretations (Glynn and Watkiss, 2020).

While cognitive psychologists have applied the concept of cognitive schema to individuals, cognitive sociologists have suggested that cultural schema is analogous to cognitive schema and could be the basic unit of cultural analysis (DiMaggio, 1997; Strandell, 2017). Cultural schemata are similar to cognitive schemata as both depict recurring patterns of related elements. Cultural schemata differ from cognitive schemata in that the former are socially transmitted, shared and learned (Strandell, 2017). Thus, we may define cultural schemata as socially shared patterns of cognitive associations. These patterns are developed as individuals interact and enact within their environments, as teachers constantly do at college and later at school units.

Cultural schemata both represent information and explain action (Strandell, 2017; Hunzaker and Valentino, 2019), as well as helping to explain why distinct contextual elements trigger different categories, as well as the reasons that certain categories can be evoked, even when they are not present in a given situation.

Cognitive and cultural schemata influence each other (Strandell, 2017). As cultural schemata are internalised by individuals, they influence those individuals' cognitive schemata. At the individual level, cognitive schemata are associated with individuals' experiences, which retain idiosyncratic aspects. Yet, as individuals share experiences and narratives within collective social groups, different individuals are influenced by the same cultural schemata (Romney et al, 1986; Ghaziani, 2009). Consequently, it is possible to conceive of cultural schemata at both the group level and as emerging from interactions between individuals, but also influencing individuals' cognitive schemata.

Analogously to cognitive schemata, cultural schemata can also be represented as associations between concepts (as illustrated at Figure 1). As a result, they emerge as bundles of words. This depiction relies on two assumptions. First, 'bundles' represent areas wherein concepts present a greater association with each other, leading to a higher probability of being recalled together (Tabor and Tanenhaus, 2001). Returning to Figure 1, we observe how 'wings', 'flies', 'feathers', and 'animal' are all related and reinforce the prototypical idea of birds. Second, following cognitive sociologists, we may conceive cultural constructs as relying on both inclusion and exclusion (Zerubavel, 1996). We refer again to Figure 1, where the concept, 'dives', is not associated with 'wings'. Consequently, cultural schemata associated with different kinds of birds is likely to include 'flies' into its cohesive bundle, while excluding 'dives' to the periphery or even in opposition to the prototypical conception of birds. As a result, it is possible to characterise cultural schemata as a system constituted by subcomponents. In summary, a cultural schema is represented by the whole network that associates concepts. We posit that we may analyse a cultural schema's structure by identifying its subcomponents. Each subcomponent is analytically a cluster, which is simultaneously internally cohesive, might present overlapping concepts with other clusters, and oppose other clusters (DiMaggio et al, 2018). When concepts are included in a given cluster, we refer to 'positive association'. Conversely, when concepts are excluded from a given cluster, we refer to 'negative association'.

Cultural schemata are socially shared, but they do not exert a deterministic role over individuals' behaviour; how they influence individuals is reliant on an individual's experiences, but also on contextual triggers. Depending on the concrete situation at hand, individuals are likely to be influenced by specific cultural schemata rather than others (Bayer et al, 2016).

Context, data, and methods

Overall, Brazil is the seventh most unequal country in the world (UNDP, 2019). It occupies the 57th position in the PISA and still has almost 3 million children out of school (around 3% of the students). In 1988, the country approved a new constitution, proposing a welfare state and based on two main principles: universalism in access to policies and rights, and the reduction of inequalities. These principles have inspired many social policies in the areas of education, health and social work. In education, the main advancement was to include many more students in the schooling system, and over 30 years, millions of students have entered the educational system. However,

even with many more children in school, this development has not yet achieved a reduction in educational inequalities: in 2018, Brazil was the fifth most unequal country in terms of the PISA assessment (Iede, 2019). Consequently, education professionals often feel pressured to justify why academic performance is not higher and more equal. Therefore, they must make decisions in a scenario of universalism and inequalities. This means that teachers cannot refuse service to any student, but instead must deal with their differences when deciding who gets what. Studying teachers within the Brazilian policy framework, therefore, provides an interesting case for understanding how they deal with these inequalities and practices of differentiation when implementing universal policies and how they subsequently categorise types of students in terms of being deserving of what type of service.

For this study, we chose schools in Sao Paulo, which is Brazil's largest city. The choice of Sao Paulo is justified as a convenience sample. Sao Paulo is an interesting case, considering the complexity of the education and the inequalities inside the city and also within the system. While Sao Paulo has well-structured schools that reach high indexes in the assessment system, it also has very poorly structured schools with low indexes. Therefore, we can see, in this case, the inequalities that matter for the research question.

The data were collected in four municipal schools that offer all levels of education; only eight Sao Paulo schools share this characteristic, and it was important to minimise contextual variation. These schools differ in performance levels and in their degree of internal differences and inequalities, as shown in Table 1.

The performance was measured based on the national index of school performance (IDEB) that it evaluates and compares each school's performance based on students' assessment tests. We chose two schools with an index above the national average and two with an index below the national average. Heterogeneity was obtained from two variables: race and income. Schools with high racial and income diversity were considered heterogeneous schools (around 50% black and white, around 50% poor and middle class). On the other hand, schools with an absolute predominance of a race and income profile were homogeneous (more than 70% black or white; more than 70% poor).

In each school, we interviewed ten teachers: five elementary and five high-school teachers. Interviewees were selected based on their interest in participating in the research. This may have resulted in some bias among the respondents, which we tried to reduce by interviewing teachers with different profiles (demographic information is provided in Appendix A). We obtained the consent of all interviewees.

Two different strategies were used to collect data from the teachers: interviews and vignettes. The interviews were designed to understand the teachers' profiles and trajectories, while the vignettes were applied post-interview to analyse the system of categorisation the teachers used. Vignettes are a semi-experimental method defined

Table 1: School characteristics

School	Performance	Degree of homogeneity
School 1	High performance	Homogeneous
School 2	High performance	Heterogeneous
School 3	Low performance	Homogeneous
School 4	Low performance	Heterogeneous

as short stories relating hypothetical circumstances about which interviewees are asked to answer (Finch, 1987). They present authentic situations or real dilemmas to interviewees, through which researchers can understand behaviour and the construction of meanings. In studies with street-level bureaucrats, vignettes have been used to understand beliefs, preferences and attitudes (Terum et al, 2018; Harrits, 2019b), and they allow a comparison of bureaucrat reactions to the same real situation in different contexts (Terum et al, 2018). To analyse how bureaucrats mobilise different systems of categories and actions, we used different vignettes to test whether students with different family characteristics but experiencing a similar problem would induce bureaucrats to activate different systems of categorisation.

In the present research, we designed two testing vignettes. As students are different in elementary and high school, we adapted the description of the case for each context. In this way, we analyse two testing vignettes for elementary school context and two other testing vignettes in the high school context.

Table 2 presents an abstract of the testing vignettes (the full vignette is given in Appendix B). Featuring students of different ages, the vignettes presented the same kind of problem: a good student whose behaviour in school had changed. The sociology of education literature has explored situations in which teachers express stereotypical thinking towards students, depending on the latter's characteristics (for example, Tiedemann, 2002; Morris, 2005; Harrits, 2019a). Additionally, as to the students' characteristics, teachers frequently mobilise patterns when considering the students' families and context (Lightfoot, 2004; Amatea et al, 2012). The presentation of the problem was purposefully ambiguous to allow different interpretations, and the variation that was tested involved the family context (type of family and their social conditions). We deliberately maintained the same behaviour for both vignettes and the same characteristics of the students in order to only test the categories activated when varying the family context. By keeping these elements constant we avoided the activation of stereotypes concerning behaviour and students' features. Therefore, we use the family context as a trigger to observe potential changes in the categories used to interpret the same behaviour. The idea was to check if the same behaviour is judged differently, considering variation in the family and social conditions.

Vignettes were developed through previous interviews with teachers wherein we mapped critical situations and the decisions they make about students. After designing

Table 2: Vignette descriptions

Vignette 1: Structured Family	Vignette 2: Unstructured Family	
Student Name: Lucas (high school) and Robson	Student's Name: Daivisson (high school) and Jona-	
(elementary school).	than (elementary school).	
Family Condition: Married family, 3 children.	Family Condition: Single mother raising 4 children	
Parent occupations: Hired housekeeper,	alone.	
bricklayer.	Parent occupations: Self-employed maid, absent	
Problems in elementary and high school: He is	father.	
a popular boy at school with a dominant role	Problems in elementary and high school: He is a	
among students. His behaviour has recently	popular boy at school with a dominant role among	
changed: He arrives late, is angry, and does not	students. His behaviour has recently changed: He	
want to engage in school activities. His school	arrives late, is angry, and does not want to engage in	
performance is decreasing. The parents do not	school activities. His school performance is decreas-	
know what to do.	ing. The parents do not know what to do.	
Specific to high school: Lucas leaves classes to	Specific to high school: Daivisson leaves classes to	
talk to other boys outside of school.	talk to other boys outside of school.	

these vignettes, a pilot test was conducted with three teachers to ensure that they were as authentic as possible.

Vignettes were presented to the teachers after the interviews. At any given level (elementary or high school), a randomly chosen half of the group (20) answered to the first testing vignette and the other half (20) to the second. After presenting the vignettes, we asked participants to react and explain how they would deal with the specific case in question. Teachers were free to interpret the case and think about the actions they would take.

All interviews were recorded, transcribed verbatim, and coded using NVivo. The authors used two stages of analysis, based on the codification process of grounded theory (Charmaz, 2006): 1) the initial line-by-line process, naming categories and types of action that arose from the interviews themselves. In this phase, we identified 44 types of category and 13 types of action; 2) reorganisation of the identified categories, which generated 17 categories and 13 actions. To present the categories, we organised them into four groups: categories related to student behaviour, pathologies, social class and family (see Appendix C). Based on the grounded analysis, we found two different types of actions that were not in the design of the research: internal and external actions. Those that were internal ones proposed a solution inside the school or the education system. The external actions propose solutions outside the school and the education system. When teachers believe that they can deal with the situation by themselves or within the school, they propose internal actions. In contrast, when they think that the case is too critical or difficult to be solved, they suggest external actions, which removes the case from the school's responsibility. Therefore, this differentiation is important because this division is related to different types of actions and, as a consequence, of deservingness.

The coding was double-checked by two different researchers. After coding each interview in NVivo, we constructed tables using each teacher's answer to each vignette as lines and each category and action as columns. Thus, we signalled which interviewee used each type of answer in a dichotomous table (1 = use, 0 = not use). The table had 40 lines (each interviewee) and 30 columns (categories and actions).

The responses for each vignette generated one 'two-mode' matrix, which we used to produce the factor analysis and the clusters of categories (see Attachment D for details). For both vignettes, we chose three groups to balance ease of interpretation with accuracy. Our analyses of clusters are based on the words that were identified as pertaining to it (positive association) or being excluded from it (negative association). The hierarchical cluster analysis adopted allowed us to identify whether a concept's positive or negative association to a cluster was significant or not. In other words, when we identified which concepts were included or excluded in each cluster, we were able to assign to each association a probability that it was distinct from random chance (p-value). Thus, we also reported a word association's parameter and significance vis-à-vis a cluster. For instance, for a given cluster, the 'unstructured family' concept's parameter could be positive and significant, but the 'psychologist' concept's parameter could be negative and significant. While the former states that 'the cluster includes "unstructured family" above random odds', the latter states that 'the cluster excludes "psychologist" above random odds.'

Following the suggested definition of cultural schemata as relational conceptual structures shared by members of a culture, we aimed at identifying clusters of concepts that are close to each other, while exploring whether distinct groups of concepts

oppose each other, representing cultural systems. We also analysed how respondents were associated with the clusters obtained, in order to assess whether different cultures generate distinct patterns.

Findings

Here, we detail the analysis of the clusters and Principal Component Analysis (PCA) applied to each of the vignettes, first presenting the analysis of each vignette and later comparing the two.

Intra-vignette analysis

Table 3 presents a summary of the clusters derived from the first vignette, which was associated with a less vulnerable family. We selected three clusters (all shown in Appendix D), described using positive (second column) and negative (third column) categories and actions.

A first glance at Actions positively associated with Vignette 1 clusters reveals the prevalence of 'internal actions' (that is, Actions under the school unit or the education system purview). Specifically, 'Bonding' (cluster 2) and 'Activate parents' (cluster 3) show the interviewees' willingness to reinforce rapport with the student and his family. Here the concept of 'Bonding' is used as teachers' connections to the students in their school, based on positive feelings, exchanges and outcomes (Crosnoe et al, 2004). Therefore, these types of actions suggest how teachers propose actions that are within their responsibilities – either alone or together with parents. Cluster 1 contains both elementary and high school teachers. In contrast, Cluster 2 is completely constituted by high school respondents, while Cluster 3 is mainly populated by elementary teachers (see Appendix, Figure D1). Cluster 1 combines statements that imply that the family is responsible for the child's failure ('Family sets no boundaries' and 'Family provides no support'), and, in tandem, that motivating the student is excluded as a possible action. Specifically, the establishment of boundaries (a code not too far from this cluster, Figure 2) emerged as a feasible solution to a student who is obedient but whose family is not cooperative. More disciplinary actions ('Activate principal') emerged as closer to the activation of a family who sets no boundaries (Figure 2).

Within Cluster 2, the student's agency impedes the educational process ('Arrogant' and 'Problem child'), although bonding with the student was regarded as a possible solution. In contrast to Clusters 1 and 3, the action taken does not involve the family (as was the case in Cluster 3), nor does it assume that the family poses an obstacle

Table 3: Vignette 1 clusters (less vulnerable family)

	Positive	Negative
Cluster 1	Family sets no boundaries Family provides no support	 Motivate Problem child Lack of focus
Cluster 2	Bonding Problem child Arrogant	• None
Cluster 3	Lack of focus Activate parents	Family provides no support

Figure 2: Categories obtained from teachers' reactions to Vignette 1 (2 PCA dimensions, varimax rotation)

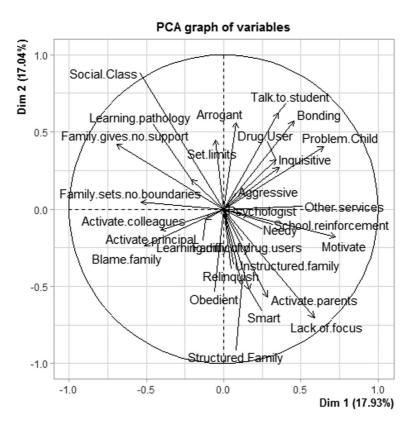


Table 4: Vignette 2 clusters (more vulnerable family)

	Positive	Negative
Cluster 1	Motivate Lack of focus	Other services Social class Unstructured family Drug user
Cluster 2	Family of drug users Obedient School reinforcement Bonding	• None
Cluster 3	 Drug user Social class Unstructured family Psychologist Activate principal Relinquish 	• None

to the educational process. The focus was solely on the student and the relationship that teachers seek to restore with them.

Cluster 3 suggests that when a student's failure is framed as a lack of focus (a mild learning obstacle), parental activation would be feasible and desirable. Cluster 3 was

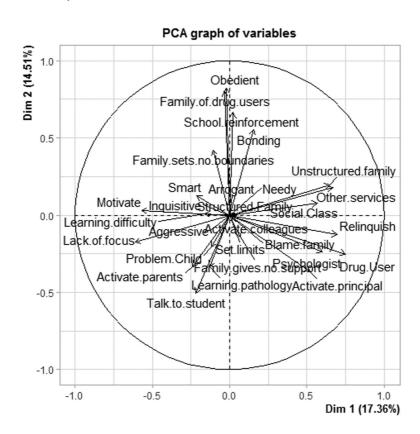


Figure 3: Categories obtained from teachers' reactions to Vignette 2 (2 PCA dimensions, varimax rotation)

also located in the same quadrant as 'Motivate'. Consequently, we may interpret it as teacher's willingness to include the family as a partner in the educational process and conceive the student as a positive and engaged actor in their own learning process.

Table 4 presents the clusters selected for the second vignette, which was associated with a more vulnerable family (Appendix E). In contrast to Vignette 1's clusters, Vignette 2's clusters also present 'external actions' (that is, codes associated with actions outside the school unit or education system purview). Specifically, Cluster 3 (Table 4) brings three categories under this rubric: 'Psychologist' and 'Relinquish'. When a psychologist is activated, the student might receive special and focused attention and no longer disturb the routine of the classroom. Finally, 'Relinquish' is the ultimate displacement of the student beyond the school's boundaries. These types of actions suggest how teachers include solutions that are beyond his responsibility.

Cluster 1 includes teachers from both elementary and high school levels, whereas Cluster includes only elementary school teachers and Cluster 3 entails only high school teachers (see Appendix, Figure E1).

As in Table 3, the second and the third columns of Table 4 depict the positive and negative categories and actions associated with the cluster, considering their proximity in the PCA graph in Figure 3.

The positive association of 'Motivate' and 'Lack of focus' to Cluster 1 suggests that teachers perceived a lack of focus as a mild obstacle to learning, and motivating the

student emerged as a feasible response. At the same time, this cluster excludes codes 'Other services', 'Social class', 'Unstructured family', and 'Drug user', commonly associated with typecast ('Drug user'), whose background is perceived as determining their failure ('Social class', 'Unstructured family'). We will return to this set in the analysis of Cluster 3.

Cluster 2's positively associated codes portray an image of a student whose family might constitute an obstacle or simply a non-existent resource ('Family of drug users'). By contrast, the student was seen as a potential partner ('Obedient'). Hence, despite a failing family, the student might still be 'rescued'. Teachers saw 'Bonding' and 'School reinforcement' (categories that indicate willingness to deal internally with the situation) as possible courses of action in this case, actions which we suggest constitute attempts to offer the student a surrogate for their own family. Thus, the cluster revealed a position where the family was seen as lost, but the student was regarded as salvageable.

Cluster 3 entailed several codes that had already been observed as opposing Cluster 1: 'Drug user', 'Social class' and 'Unstructured family'. As suggested earlier, these codes reveal a typecasting of both student and family.

Inter-vignette analyses

As suggested in our theoretical review, the meaning of words can shift depending on how they are related to other words. Throughout the answers to these vignettes, it was possible to observe how codes received new meanings, in particular with regard to three concepts: 'Family' (registered across several codes), 'Bonding' and 'Motivate'.

Within responses to both vignettes, 'Family' emerged as an important concept, yet with different meanings attached. In Vignette 1, families were seen as a potential source of the problem because of their actions (that is, 'sets no boundaries', 'provides no support'). Within responses to Vignette 2, families were also thought of as the source of challenges, but this time for what they 'were' (that is, 'Drug users', 'Unstructured'). In the former set, teachers attributed greater agency to families, whereas in the latter, they looked at families' existential conditions to draw inferences. Analogously, while responses to Vignette 1 considered the family as a potential partner, responses to Vignette 2 saw families solely as a constraint.

'Bonding' is considered core to the educational process (Crosnoe et al, 2004; Quin, 2017); yet, as observed throughout these analyses, the bonding process gains different meanings and functions depending on how teachers perceive a student's situation. Throughout the responses to Vignette 1 (Cluster 2), bonding was seen as a way of attracting a 'problem child' or 'arrogant' child into the school community, thus performing the role of uniting the student community into a cohesive whole. In contrast, answers to Vignette 2 (Cluster 2) revealed that 'Bonding' assumed the role of rescuing a student from their family. Hence, whereas in the former situation, bonding refers to the school's internal environment, in the latter, bonding refers to how teachers perform their boundary-spanning role, mediating between the school and its surrounding environment.

Finally, we suggest that 'Motivate' changes its meaning depending on what it is opposed to. Within responses to Vignette 1, 'Motivate' emerged as the opposite to 'Family provides no support' and 'Family sets no boundaries' (Cluster 1); hence, motivation is feasible when an unsupportive family is absent. In contrast, answers

to Vignette 2 revealed that 'Motivate' was placed in opposition to a constraining background ('Social class', 'Unstructured family'); thus, this action becomes feasible if the associated constraining background is not present. Answers to both vignettes show how the 'Motivate' action is possible when certain constraints are lifted; however, the constraining background varies, which suggests that tacit assumptions differ across vignettes.

Discussions

These analyses show how teachers apply systems of categorisation and associate different types of categories and actions to cases with the same behaviour but with different situations. They also demonstrate how the same category can become very different when related to other categories and situated within a specific case. The use of clusters enabled us to understand how some categories are associated with each other and how some are dissimilar to others when grouped. Taken together, these clusters depicted cultural schemata mobilised by teachers throughout their categorisation processes.

One example is how the analysis showed the different meanings attributed to the category 'family' in the vignettes. As previous research has shown, our data suggest how families can play a central role in the education process according to the way teachers categorise situations (Abrams and Gibbs, 2002; Yanow, 2003; Lareau, 2011; Harrits and Møller, 2014; Harrits, 2019a; Vinopal, 2020). However, this data demonstrates that the interpretation of family behaviour and family responsibility may be very different. This was evident in the first vignette. Cluster 1 suggested the idea of family as an obstacle that must be avoided, Cluster 3 depicted families as partners, while Cluster 2 was silent about families, placing all the attention on the students. This means that the same concept changes meaning in different clusters: family can be either a solution or a problem, contributing to the situation or seen as ineffective. Thus, families may be judged not only by their perceived behaviour regarding a student's education but also by their structure.

Comparing both vignettes, the data suggest that introducing a variable of vulnerability to the cases changes the role attributed to the family by teachers from being responsible (or a solution) for the case to being a contextual problem that cannot solve the situation.

The comparison between the two vignettes also demonstrates how introducing the idea of a 'more vulnerable family' changes the interpretations teachers make of their cases, even when using the same types of categories and observing the same behavioural problem. The second vignette illuminates how teachers introduce, in the more vulnerable cases, aspects and interpretations that transcend the situation described, such as the ideas of drug use and social class. It also takes a case to realms outside of the school, suggesting the activation of the child service, psychologists and other services. This was evidenced by the introduction of 'external actions' in some clusters of the second vignette. In the most precarious situations (Cluster 3), teachers placed students outside the school system. In hybrid situations (Cluster 2), where the student's background was problematic but the student was seen as cooperative, teachers believed it was possible to retain them in the educational system. Finally, when there was a minor problem and the family was not an obstacle (Cluster 1), minimal interventions were seen as sufficient.

The analyses show that there are differences both between and within vignettes about how teachers interpret the cases, about the categories they use and how they associate them and, finally, about the internal and external actions they mobilise. These differences suggest the ways in which teachers activate cultural schemata to understand the situation that goes beyond the behaviour and introduces information in the cases based on their interpretation of it. These differences also suggest that cultural schemata tend to be different in elementary and high school levels. In the first one, the differences between vignettes are less clear than in the second one. Also, at the high school level, teachers tend to include more outside actions than do those in the elementary school. One possible explanation for this difference might be related to the extent that teachers at different levels perceive the efficacy of internal actions on students' trajectories.

Previous studies have also suggested how the dimension of social class or standards activate different types of interpretations into cases (Dubois, 1999; Maynard-Moody and Musheno, 2003; Harrits, 2019a). In our cases, however, it is noteworthy that evoking these categories associated with vulnerable situations was associated with activating a situation in which the case becomes unsolvable within the school's boundaries. When they introduce these new categories related to a vulnerable situation, teachers identify the case as a very difficult one, for which they do not have a solution or the ability to address; hence, they must propose external actions to solve it. A problem of bad behaviour inside the school becomes attached to a problem of drugs, social class, poverty (as teachers have mentioned), and other categories that jettison the case outside of the school and move it to the upper level of problem and solution.

It is important to note that teachers' withdrawal should not be interpreted as an issue of moral erosion: the teachers in this study really believed that the inadequacy of students originated from an unequal society, and, therefore, that the state (and not the school) should be responsible for difficult cases. However, in some cases, this belief results in proposing actions external to the school, removing the responsibility of the school to solve them. Our study suggests that this rationale is not based on student behaviour but rather on the way teachers categorise the situation through associating different types of categories.

Conclusions

This study has aimed to analyse how street-level bureaucrats' categorisation of citizens is embedded within conceptual systems. We observed the process of categorisation as embedded in cultural schemata used by street-level bureaucrats. Analysing the responses to vignettes, we observed how teachers make sense of similar behaviours using different categories and types of actions. To analyse the uses of these categories and actions, we constructed matrices. From these matrices, we obtained clusters that illustrate how codes might be close to, far from, and opposed to each other and what contextual triggers might explain why a specific category is mobilised. We suggest that the way street-level bureaucrats deploy categories coalesces into cultural schemata. In this way, the same categories acquire different meanings and are related to different courses of action when the student's context is changed. Consequently, the analyses show that, depending on how context triggers the teachers' system of categorisation, distinct actions are proposed. These different actions produce different

types of deservingness that, in the case analysed here, are related to actions inside or outside the school.

This study makes four distinct contributions to the literature. The first is to enhance our limited understanding of how street-level bureaucrats use categories when interacting with citizens, a topic that is 'less widespread' in the current research (Harrits and Møller, 2011; Terum et al, 2018; Thomann and Rapp, 2018; Raaphorst and Groeneveld, 2019).

The second is its observation of categories as systems of categorisation by which teachers classify students. We have suggested how categories are associated with each other and thus attain new meanings. It shows how the same concept may be based on different interpretations of a situation and how these interpretations may also generate a variance in responses.

The third contribution is to suggest a methodological-theoretical approach to formalise culture. Categories are analysed as embedded in cultural schemata and the approach proposed here offers a theoretical perspective that contributes to understanding how categories are embedded in complex conceptual systems. Finally, we present substantive intuitions on how clients might be led to actions that differ in treatment. Certain situations lead teachers to suggest actions that are under the school's control, while other situations lead to actions that disengage teachers from direct responsibility.

These findings have important implications for policymakers in ensuring more equal access to services and a more equal approach to dealing with students who require extra support in the classroom. Two critical situations are evidenced in these findings. The first speaks to the ways in which teachers categorise students. As the categorisation process may imply inequality, they should be influenced (Devine, 1998). The second centers on the different types of deservingness produced under this categorisation process. The study suggests that teachers associate different categories when triggered by contextual factors. Within this process, teachers propose for some students, actions inside the school, under his responsibility while other students should receive actions out of the school, meaning that the school is unable to deal with them. Both situations produce differentiation and unequal access inside the schools.

To deal with these situations, scholars have already suggested that policymakers should be made aware of how street-level bureaucrats categorise citizens, considering that unofficial categories may affect access, deservingness and also identities (Zacka, 2017; Jilke and Tummers, 2018; Thomann and Rapp, 2018; Harrits et al, 2019a).

Therefore, policymakers should identify how the process of association takes place in each context and also how this process affects the way students are treated. Based on that, policymakers should encourage collective discussions about this, providing information and incentives aimed at influencing the categorisation process and the relationship between teachers and students (Zacka, 2017; Harrits, 2019a). Further, socialisation with heterogeneous groups of students may influence the way street-level bureaucrats categorise them (Pettigrew et al, 2007; Pettigrew and Tropp, 2008; Raaphorst and Groeneveld, 2019; Harrits, 2019a: 101). Therefore, managers play important roles in this process, guiding and influencing street-level bureaucrats' decision-making Gofen, 2014; Altreiter and Leibetseder, 2015). Finally, researchers have also proposed that constructing trust between workers and citizens is an important measure with which to change the way citizens are categorised and entitled to services (Davidovitz and Cohen, 2020).

The main limitation of this study is that it has applied these innovations to the analysis of just one profession in one context; thus, future studies should use this methodological-theoretical proposition to analyse different types of street-level bureaucrats and different contexts. Studies on health workers, social workers and police officers, for example, might contribute to understanding how different types of street-level bureaucrats mobilise their shared cultural schemata to categorise citizens. Furthermore, analysing this in contexts with lower levels of inequality would provide an interesting opportunity to examine whether inequality can explain differences between vignettes in the categorisation process, as we suggest here.

Another limitation is the sample size, which is small and makes it difficult to generalise the findings. That is also a reason to conduct the same kind of research in other contexts (more and less vulnerable than ours) and applied to other bureaucracies (such as social workers and health workers, for example). Finally, further studies should also include variables such as gender and race, which we decided not to test in this study. In this way, future research can also examine differences in the categorisation system of how teachers judge female students or black or white students, as previous research has suggested observing street-level bureaucrats (Soss et al, 2011; Portillo and Rudes, 2014; Epp et al, 2014; Bosk, 2020; de Boer, 2020).

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Appendix

The online Appendix can be found here: https://www.ingentaconnect.com/content/tpp/pap/supp-data/content-policypold2000133app and doi: 10.1332/030557321X163 12005005443.

Conflict of interest

The authors declare that there is no conflict of interest.

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