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What Does It Mean to Have a Dirty and Informal Job? The Case of Waste Pickers in the Rio Grande do Sul, Brazil

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Abstract: The literature on dirty workers analysed material and symbolic aspects of work, highlighting how dirty workers deal with the stigma associated with their occupations. This approach put less attention on dirty workers who operate in the informal economy, which is a relevant category especially in some sectors, such as the urban-waste management and recycling. Drawing on a 2019–2022 qualitative study of waste pickers (WPs) in the Rio Grande do Sul state (Brazil), this article aims to understand whether and how the informal conditions interact with the symbolic and material aspects of the dirty job. First, it shows various attempts to redefine the meanings of waste pickers' work, in a positive sense. The more articulated attempts mainly concern the more structured WPs organisations and, in some cases, go far beyond the strategies described by the traditional literature on dirty workers. Second, it emphasizes the importance of the relations between WPs organisations and public administrations in defining the effectiveness of the actions aimed at reducing the stigma associated with the WPs' work. Together, these contributions highlight the utility of exploring the dynamics and the differences of informal dirty work in order to enrich the dirty-work approach.

Keywords: Brazil; dirty workers; identity; informal economy; waste management; waste pickers; working practices



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1. Introduction

Waste separation and re-use of the recyclable parts of waste are increasingly indicated as key actions to kickstart virtuous-circular-economy processes aimed at improving levels of sustainability and livability in urban areas around the world. The smooth functioning of these activities depends on the work of millions of waste operators, that is to say, dirty workers, who are employed in occupations related to waste collection, sorting and separation. In the Global South, a significant number of these workers operate in the informal economy (informal waste-pickers, IWPs, or waste pickers, WPs).

For a long time, the literature on dirty workers analysed and highlighted how dealing with materials that are considered filthy (dirt) contributes to the construction of different types of stigmas associated with certain occupations (dirty jobs) and thus with certain workers (dirty workers). On the one hand, various studies analysed the material and symbolic aspects that, by acting on and reacting to one another, structure the stigmatisation that affects dirty workers. On the other hand, an increasing amount of empirical research focused on the actions of dirty workers to reduce or neutralise stigmatisation. These studies highlighted the perceptions of dirty workers, their prevailing patterns of actions and the ways they position themselves as active subjects engaged in redefining a series of symbolic and material aspects related to their occupation. The dirty-jobs approach has, of course, described and analysed the work of those subjects employed in waste collection, sorting and recycling, albeit addressing almost exclusively those employed in the regular part of the economy, and mostly in the more economically advanced countries of the world [1–4].

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This article aims to enrich this debate by analysing the work of dirty workers operating in the informal economy. Specifically, through an analysis of empirical material collected in some urban areas of the Rio Grande do Sul state (Brazil) in the period between 2019 and 2022, it aims to examine and understand how, and to what extent, being an informal dirty worker affects the patterns of action and the processes implemented by workers in order to reduce stigmatisation.

2. Work and Its Multiple Meanings in Dirty Jobs

The expression dirty work was first used by Everett Hughes [5,6] to refer to occupations that involve tasks generally considered to be unpleasant, disgusting or humiliating. Over the years, numerous studies have shown that workers tend to be associated with their so-called dirty jobs, thus becoming dirty workers [7–9].

Hence, the literature highlighted three forms of stigma usually experienced by dirty workers: physical/material, social and moral [2,10]. In general, physical stigma occurs when workers are in continuous contact with toxic substances, waste, and refuse, or perform their tasks under hazardous or potentially health-damaging conditions (e.g., waste pickers, hospital workers). Social stigma mostly arises when workers carry out a servile role, that is, jobs that require a very low level of professionalism or involve continuous contact with people who are themselves stigmatised (for instance, AIDS patients, incarcerated individuals). Lastly, moral stigma is associated with jobs that are considered to deviate from prevailing moral norms (e.g., prostitution). These forms of stigma affect the formation of professional identity, negatively influencing workers' processes of constructing self-esteem and, more broadly, a sense of self [7]. Furthermore, according to various authors, the analysis of the meanings attributed to dirty jobs can allow us to explore and better understand the dynamics of class and power that underly these types of occupations, as well as the relations among single individuals and the social structures in which they are embedded [3,8].

Another set of issues analysed within this strand of the literature related to the perceptions of dirty workers and how they live with the different types of stigmas they face. The picture that emerges is less homogenous and negative than one might expect; in many cases, dirty workers did not result as socially and economically marginalised individuals who passively accepted their stigmatisation, but rather as social actors who implemented a series of practical and symbolic actions aimed at reducing the negative effects of stigmatisation. In fact, several empirical studies attempted to explore the modalities adopted by dirty workers to maintain a positive sense of self, revealing, analysing, and interpreting the schemes of action these workers undertake and the psycho-social techniques they employ.

However, the literature focused more on the symbolic and social meanings associated with dirty jobs than on their material aspects. Ashforth and Kreiner [10], for instance, identified a number of cognitive techniques implemented to counter the effects of stigmatisation. Specifically, they isolated the techniques of (1) reframing, which consists of transforming the meaning attributed to certain occupations; (2) recalibrating, which centres on the tasks assigned to dirty workers, emphasizing the more pleasant aspects and those that require the possession of uncommon characteristics for their performance (e.g., courage and physical strength); and (3) refocusing, i.e., shifting the focus of attention from the most stigmatised aspects of the work to those that are less stigmatised or not stigmatised at all.

These techniques allow dirty workers to confront the stigmas attached to their occupation by redefining some of its meanings in order to preserve their dignity as workers. In the literature, the redefinition of work's meanings is framed as a tool for understanding why a significant proportion of dirty workers express medium-to-high levels of job satisfaction, despite the negative effects of stigmatisation. For example, Deery and colleagues [11] have drawn on some mechanisms identified by Hodson [12,13] to explain such levels of satisfaction. These mechanisms which partially overlap with those of Ashforth and Kreiner [10]—are: (1) re-construction of a series of meanings attached to the job (reframing); (2) construction of spaces of autonomy within the work routine (spaces in which individuals

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can express their problem-solving skills); (3) valorisation of relationships with one or more co-workers and development of solidarity mechanisms within the group; (4) valorisation of the variety of tasks that are usually assigned to dirty workers in various sectors. Through this type of analysis, the Deery and colleagues' study shed light on the importance of situational factors and social context in determining satisfaction levels.

Slutskaya and colleagues [3] also related dirty jobs and their connected meanings to broader situational and contextual factors such as social class, gender, and ethnic group, underlining how this type of analysis can highlight 'how the moral boundaries and margins of the social order are both contested and maintained' (p. 169). In their study on street cleaners and refuse collectors, they showed how forms of social comparison are particularly important in dirty workers' processes of construction and the defence of identity and self-esteem. In this case, street cleaners and refuse collectors put themselves in continuous comparison with groups of workers considered more vulnerable (women, precarious workers, migrants, unemployed), thus generating further segmentations within the set of workers employed in the most humble and low-skilled jobs. The study emphasised, for instance, how male dirty-workers experienced the regularity of their employment as key to asserting their dignity as workers, distinguishing themselves from precarious and informal workers, who cannot exhibit such work continuity. This empirical evidence revealed the existence of grassroots strategies of distinction aimed at claiming spaces of freedom and autonomy within the heterogeneous category of dirty jobs, all the while risking, as was argued, doing nothing more than reinforcing already existing power relations.

Other scholars, however, showed how readings of the dirty-jobs phenomenon exclusively adopting a 'culturalist' and 'hyper-socialised' lens (strictly focusing on the production of meanings attributed to the job and the construction of workers' sense of self) tended to overlook the physical and material aspects of the work itself [2]. According to these authors, it is therefore necessary to pay more attention to the material aspects of dirty jobs in order to fully understand how dirty workers seek to dignify their work, both from a discursive-symbolic and a practical-material point of view. Indeed, while on the one hand various forms of stigma have prompted dirty workers to activate a series of mechanisms aimed at associating their work with new and more positive meanings, on the other hand, some substantive aspects of dirty jobs can undermine these mechanisms and make them less effective.

Some scholars embraced Barad's [14] concept of intra-action to explore how material and symbolic aspects intertwine and feed off one another in defining the experiences of dirty workers. Barad proposed a strongly relational approach, emphasising how the material and symbolic components of work must be considered inseparable phenomena, which by intra-acting with each other co-constitute the phenomenon itself. Alternatively, Hardy and Thomas [15] proposed an examination of the four key aspects of the materiality of work (objects, practices, bodies, and space), taking into account how material and discursive/symbolic aspects are 'inextricably entwined' in dirty jobs [15] (p. 680). Moving beyond the differences between the approaches of Barad and Hardy and Thomas (for a more in-depth discussion see [16]), it is important to underline how both place the material aspects of the work at the centre of their analysis, avoiding, at the same time, the negation of the discursive/symbolic aspects: indeed, they aimed to provide interpretive frameworks useful for understanding how the material and the symbolic relate to each other.

In general, the invitation to pay adequate attention to the daily material practices of dirty workers seems particularly useful for analysing the multidimensionality of dirty jobs, such as the work of waste pickers, in which material and symbolic aspects appear particularly evident. This becomes even more valuable when we look to the Global South, in contexts where this kind of work is mostly executed by informal workers. Indeed, we believe that the status of informal worker, and all that follows from it in terms of the materiality and discursiveness of work, poses a further challenge to the analytical frameworks proposed by the literature on dirty workers. More explicitly, using the empirical case proposed here, the article would like to begin to explore what happens to the material and

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discursive/symbolic aspects of work when the status of 'dirty' is associated with that of 'informal'. Therefore, it will try to highlight whether, and on what terms, being an informal dirty worker is different from being a dirty worker.

3. Urban Livelihoods, Waste Management and Waste Pickers

Globally, the separate collection of urban waste is touted as a measure that can meaningfully contribute to making urban life sustainable by significantly reducing the need for the use of open-air dumps, which are considered a source of environmental, economic, and social problems. Over the years, separate collection has become a key strategy for making municipal solid-waste-management and disposal-systems effective and efficient; moreover, it has been increasingly recognized as a crucial element in the integration of waste management into circular economy systems [17–19].

In many countries of the Global South, a significant proportion of waste-collection activities are carried out by informal workers, whose work activities are not regulated and/or protected by state laws and norms of collective-bargaining systems [20]. It is important to make a brief digression on the concept of the informal economy because, over the years, the task of finding its universally accurate and accepted definition has not been accomplished. However, the majority of definitions focused attention on the relations with the formal institutions or the state; for instance: (a) the informal economy encompasses 'those actions of economic agents that fail to adhere to the established institutional rules or are denied their protection' [21] (p. 990); (b) the informal economy includes 'all incomeearning activities that are not regulated by the state in social environments where similar activities are regulated' [22] (p. 12). These are only two of the most cited definitions of the informal economy, which tried to highlight a few crucial features of a phenomenon characterized by many empirical demonstrations [20,23].

In general, waste pickers collect waste from public and private buildings, separating recyclables (paper, cardboard, aluminium, glass, electronic waste, and different types of plastic) from materials destined for dumps (organic waste and non-recyclable waste); they usually transport the collected waste in heavy handcarts or horse-drawn carts. Waste pickers operate autonomously (often involving other family members in the activity) or as members of groups, associations, and cooperatives, in some cases formally recognised, in others belonging to the informal sphere of the economy. Although they are essential actors in the implementation of modern waste-sorting policies, they generally work under precarious conditions, receive low wages, and are often subjected to exploitation, primarily by middlemen who buy the sorted waste from the waste pickers and resell it to larger traders or processors [24–28]. Despite differences in the spheres of regulation and work practices, in many cities of the Global South 'they suffer from stigma attached to informal work and the lack of recognition for the services provided' [29] (p. 1).

In the literature, their work has been scrutinised from various angles, each of which highlighted different aspects and criticalities. In some cases, the focus has been on the service activity: its costs, efficiency, and the level of integration (or non-integration) with the other parts that make up the waste collection and management chain. In other cases, scholars focused on work and its social practices, situating their analysis within a broader debate on labour transformations. In still others, analyses focused on the associative and cooperative elements of such practices. From an interpretive point of view, some approaches seemed to prevail over others, namely: (1) the so-called culture of poverty approach, which views the informal waste pickers (WPs) of the Global South as victims of processes of social and economic marginalisation and progressive dispossession, which physically and symbolically bring together subjects rejected by society with objects considered useless [25,30,31]; (2) the politics of the informality approach, which analyses forms of grassroots representation and resistance, developed in the absence of forms of support from the state [24,32,33]; (3) the decent-work approach, which, focusing almost exclusively on collective forms of waste picking, emphasises the attempts of associations and coopera-

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tives to improve living and working conditions of waste pickers, often in vastly different institutional and cultural contexts [34–38].

Empirical studies in the Global South have thus contributed to acknowledging the central role that WPs play in urban-waste collection and disposal chains. Concurrently, they have revealed how, in many urban contexts, these informal actors carry out their work in an economic and social environment in which the risks of exploitation and progressive dispossession—of their status as workers, citizens, and people—are high. Thus, the literature focused on initiatives aimed at reducing these risks, especially in the form of inclusion policies and bottom-up initiatives of collective-labour organizations. In general, however, while the literature on WPs in the Global South has often touched on the stigmas associated with waste picking, it has very rarely employed the interpretive schemes developed by the literature on dirty jobs, confining such schemes exclusively to the analysis of dirty work within the formal economy.

4. Empirical Context, Materials, and Methods

In Brazil, the most recent environmental reforms introduced various innovations in the management of local waste-collection and disposal services. The most notable is represented by Law 12305, introduced in 2010, which established the so-called National Policy for Solid Waste (*Politica Nacional de Resíduos Sólidos*, PNRS). The PNRS established principles, long-term objectives, instruments and sanctions for states and local municipalities regarding waste management [39]. It thus launched a regulatory framework within which local governments can promote specific policies suited to the contexts under their administration. With the PNRS, Brazilian local governments (*prefeituras*) became the main managers and executors of the waste-collection and disposal processes through some specific policies such as the municipal sanitation plan (*Plano municipal de saneamento básico*, PMSB) and the municipal plan for the integrated management of urban solid waste (*Plano municipal de gestão integrada dos resíduos sólidos urbanos*, PMGIRS) [40].

The PNRS also brought about important changes for informal waste-pickers (*catadores* in Portuguese), allowing for the direct contracting of cooperatives and associations in the municipal territory, thanks to the *dispensa de licitação*, that is, the exemption from having to participate in public-bidding procedures. Indeed, one of the objectives of the PNRS was to create a more favourable regulatory environment for WPs and their organisations, in order to improve their working conditions. It is important to highlight the fact that waste pickers in Brazil can work collectively within different forms of organization: informal groups, associations (which are very simple formal organizations, with low registration costs), and cooperatives (which are more articulated formal organizations, with higher registration-costs).

Several empirical studies attempted to investigate the effects of the introduction of the PNRS on the realities of waste pickers, providing conflicting results [41,42]. Some studies squarely concentrated on the implementation of the parts of the PNRS that concern the integration of waste pickers' organisations into the urban-waste-management chain, primarily through processes of formalisation and contracting carried out by local authorities. For example, Calderón Márquez and colleagues [43] highlighted the fact that in 2016 (six years after the approval of the PNRS), only 22% of the 5567 Brazilian municipalities had adopted the programmes envisaged by the reform. Moreover, according to Rutkowski and Rutkowski [44], in 2015 only 25 Brazilian local governments concluded formal agreements with WPs' organisations, delegating all or part of the municipal-waste collection to them.

These numbers testify to the existence of several difficulties concerning the implementation of the reform at a local level, in particular: (1) local authorities' struggle to organise the entire waste-management and disposal chain (it is unclear, for instance, whether and how to involve private actors in the processes of integrating informal waste-pickers) [45,46]; (2) difficulties on the side of the waste pickers' organisations, in terms of work organisation and efficiency improvement, as well as in formalising and financially securing their activities [44,47].

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Empirical studies thus demonstrated that, despite the introduction of a (national) law requiring the integration of waste pickers, actual levels of integration remain very low. Moreover, even in cases where integration processes have been realised, they have taken on various forms, often involving only a few WPs' organisations, and producing very differentiated outcomes—both in terms of improving the working conditions of WPs and in terms of economic stability for the portion of the waste chain that substantively includes informal workers.

Regarding the region where we carried out the fieldwork, Rio Grande do Sul, the implementation of the PNRS was on average higher than in the other Brazilian states: slightly more than half of local administrations adopted at least some of the environmental-management tools outlined by the reform (around 300 local governments out of a total of 497). Nonetheless, separate waste-collection is still not very effective: on average, in 2019, only about 13% of the total municipal solid-waste was recovered [48].

Materials and Methods

Over the last three years (2019–2022), we carried out a case study on the waste pickers operating in the state of Rio Grande do Sul. The study started from the analysis of the most recent literature on waste pickers, with the aim of investigating similarities and differences within this occupation in terms of organization and working conditions, but also in terms of attitudes, meanings and values attributed to work and everyday life by the waste pickers themselves. One of the main objectives of the empirical research was to highlight, if it exists, the heterogeneity within the work of the waste pickers and if and how this heterogeneity can influence the 'voice' of the waste pickers and their role within the chain of municipal-waste collection and sorting activities. For this reason, WPs' organisations of different forms were chosen (associations, cooperatives), which operate in different urban contexts, and which therefore may have developed multiple relationships with the other actors who, directly or indirectly, are involved in the collection and management of urban waste. The juxtaposition of different contexts of practice was aimed at achieving an adequate level of comparative potential [48], useful for reinforcing and extending the statements emerging from empirical research, following the principles of argumentation theory [49–52]. According to Van Eemeren and Grootendorst [48,50] (p. 13), 'argumentation is a social and rational verbal activity aimed at convincing a reasonable critic of the acceptability of a thesis through a set of propositions that are put forward to prove or disprove the stated proposition'. There are several theoretical and methodological contributions that argue that argumentation theory can perform the same function for qualitative research that probability theory performs for quantitative research, for the construction of knowledge [48,52,53].

The research was exploratory in nature and mainly based on semi-structured interviews, observations at the work sites, and analysis of documents. Specifically, the interviews were conducted in two periods: 2019–2020 and 2021–2022. The interviews outline contained questions related to the following topics: (a) daily work practices; (b) working conditions; (c) working hours and salary; (d) relations with colleagues; (e) relations with other people; (f) background; (g) perceptions of waste-picking work; (h) origin of the group; (i) relations with local institutions and NGOs; (l) internal governance; (m) gender and positions occupied in the organisation; (n) types of services provided to the community; (o) access to training and capacity-building (the interview guide is provided in the Supplementary Materials of this publication). The usefulness of audio and video recording for research purposes was explained to all participants. They were asked for their consent and were informed about the possibility of refraining from taking part in the research at any point.

In the first period we mainly interviewed the leaders of WPs' organisations. The study involved 15 cooperatives and associations (out of around 80 that are present in the Rio Grande do Sul), according to their diffusion throughout the state: a higher concentration in the metropolitan region of Porto Alegre, a lower concentration in the inland regions (specifically, the fieldwork was developed in the following urban contexts: Porto Alegre, Cachoerinha, Canoas, Cruz Alta, Encruzilhada do Sul, Novo Hamburgo, Uruguaiana,

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Pinheiro Machado, Santa Cruz do Sul, Santa Maria, Santiago, São Borja, Turuçu). The leaders of the organisations selected for the study were previously contacted by telephone, to explain the main objectives of the study and to inquire about their availability for the interview and for hosting the researchers for one or two days at their organisation. The selection of the research participants was thus based on previous contacts and was then expanded, through snowballing. Recruitment within the contacted people allowed us to cover the continuum between large and well-equipped groups and small groups operating with the minimum equipment. During the visits to the WPs' organisations, we had informal conversations with other group members (beyond the leaders). In general, these conversations allowed the participants to express their perceptions of being a waste picker. Follow-up conversations were held through phone and WhatsApp to collect further details and to complement the collected data. Furthermore, in 2019, we participated to a two-day training workshop organized in Porto Alegre by an NGO. In the second period of interviews (2019–2022), the study involved more individual WPs and WPs operating within organisations (beyond the organisations' leaders). The interviews followed the same outline used in the first period. In total, we interviewed twenty organisations' leaders, eight WPs working in organisations and seven individual WPs. Most of the respondents were women. Their ages varied widely, ranging from 30 to over 60.

The collected data were transcribed, anonymized, systematized, and analysed by applying qualitative content analysis based on thematic coding [54]. This basically involved generating initial codes through the raw data, identifying specific themes, and interpreting the identified themes (as conceptual blocks) [48,55,56]. The following section discusses the interpretation of the main empirical results.

5. Results

As illustrated above, this article aims to use concepts and interpretive schemes proposed in the literature on dirty jobs to analyse the material and immaterial aspects of informal dirty jobs, drawing on the empirical evidence collected in fieldwork with WPs. Following the scholarly suggestion to take into proper account the material aspects that characterise dirty jobs, as well as their interrelations with symbolic aspects, we inquired whether and how such material and symbolic aspects intersect in the case of WPs with the status of informal worker, and how this intersection contributes to defining new forms of identity and meanings related to waste picking.

To answer these questions, the empirical material is organized according to some of the dimensions of work used and discussed in the literature on dirty workers. We chose to adopt the following dimensions for their capacity to shed light on the situational factors and social contexts, highlighting the role they play in the process of reconstructing the meanings attributed to work as well as that of valorising some of its practices. As far as possible, we will illustrate whether and how the status and perception of being an informal worker shapes the structure of these processes.

5.1. Re-Framing the Meaning of Work

Among the cooperatives and associations studied, WPs' practice of attributing new meanings to their work was recurrent. WPs no longer perceived themselves merely as an individual, informal waste-picker, dedicated to the collection and sorting of urban waste, but as 'ecology prophets' (*Profetas da ecologia*, which is the name of a WPs' association) who can be 're-born' (*Renascer*, which is the name of another WPs' organisation).

Moreover, the term rubbish (*lixo*) was never heard in the interviews: WPs exclusively used the words 'residue' or 'material'; what changes above all, however, is the semantics of the term: the 'material' is not dirty, but rather a source of wealth, with the potential to place waste pickers in a position to provide for themselves and their family's needs, through decent work.

In general, many members of the WPs' organisations are often former drug-users, ex-prostitutes, unemployed workers, women who have been subjected to physical violence

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and, more generally, very vulnerable people. For these individuals, joining a self-organised group meant first and foremost putting their own personal fragilities on the back burner, while concurrently giving value to the usefulness of their work for the entire community. Indeed, various attempts to re-frame the common perception of waste collection and disposal work (*catação*) emerged from the interviews. These attempts were aimed at increasing the self-esteem of the people involved, by stressing the positive aspects of being a *catador* and of the daily work it involves, which nevertheless remains tiring, difficult and stigmatised:

"The colonisation of Santa Cruz is German. And it is strict. There are practices of branqueamento (whitening), here in Santa Cruz. The cooperative was born out of this struggle, (created) by these catadores, all living in the south (of the city), the poorest neighbourhood. They joined together for survival." (CAM01, Santa Cruz do Sul)

The re-framing attempts often tended to associate WPs' organisations with meanings and functions that go beyond their role in the waste-management chain. In many cases, these re-framing processes were promoted and reinforced by external actors. Indeed, WPs organisations' members were frequently invited to participate in training courses organised by NGOs, universities, or other entities. For instance, we participated in a course organised by a non-governmental organisation (NGO) in Porto Alegre in 2019, which lasted three days and covered topics including self-management practices and waste pickers' working-conditions. During training days, WPs thoroughly discussed the relationship between their past—as individual waste pickers—and their present, as a self-managed group. This new configuration was referred to as new picking (novo catar), which implied an adherence, also ideological, to a new life and work project, less personal and more collective in nature, where values were more strongly shared and a common idea of the political and social role of the waste picker was built.

In general, these kind of training courses prompt the identification of common destinies, which describe and reinforce the identity of the WP as a member of a group (see Section 5.4 for more details). This constitutes a deep re-definition of the meanings attached to being a waste picker, beginning with the working sphere and eventually embracing other dimensions. Significantly, this exercise of identity renewal is tentatively brought about even in those contexts in which waste picking continues to be marked by a high level of material deprivation. In this scenario, indeed, change is seemingly supported by the search for something capable of giving meaning and significance to the work of the WPs: meetings, a sense of belonging, the social role of the WPs' organisations, the social relations that strengthen the value of the group, and the work itself. In this sense, these findings seemed to be similar to the studies on the strategies that dirty workers develop to deal with tainting and to give meaning to their work [7].

However, our study did not identify any linearity in this process. Rather, it revealed a high variability in its outcomes and the factors influencing it. Specifically, a higher degree of formalisation of the WPs' self-management experiences seemed to coincide with more articulated forms of change, not only in the symbolic, but also in the material aspects of the organisations studied. In fact, cooperatives were the ones most involved in promoting environmental education and, more generally, training events and cultural activities involving the entire urban-community: public events, school meetings, social projects, music groups, fundraisers, street theatre and other social activities.

"We are putting together the paperwork to start a project with the municipality, so that, in addition to plastic and aluminium, we could collect organic waste, produce compost, and start a community garden, to plant vegetables. [...] We also have an agreement with the (municipality's) social workers. Because we receive clothes, which could be used by the poor. [...] But we also do other things. For example, there are people who come to us asking for help with their child who 'needs a psychologist' and we pass on the contact details of a psychologist we know, who helps us." (LCM06, Cachoeirinha)

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Most of the interviewees described their relationships with the neighbourhood, the local schools, families living near the WPs organisations' locations and, in general, local communities. As previously mentioned, interactions with the social environment outside the organisations did not exclusively concern the strictly working-dimension: in the interviews, various waste pickers described cultural and social activities that took place in the neighbourhood, especially among women. Furthermore, a great deal of emphasis was placed on the activities developed within the community: the interviewees smiled while they recollected certain episodes, expressing a sense of pride in all the activities that stemmed from the waste-picking activities. Cooperatives seemed again to be the actors with the greatest potential to create and renew these mechanisms, allowing WPs to relate to the outside world and reduce their perception as marginalised and stigmatised workers: in some cases, waste pickers thus became civic subjects, active in their community.

5.2. Spaces of Autonomy

The fieldwork showed that the concept of autonomy is central to understanding the differences between individual WPs and WPs organised in groups. Generally, individual workers are free to carry out their work as they see fit (albeit within the constraints deriving from the economic organisation of the sector): the important thing is to make it through the day and sell the collected material. On the contrary, WPs working in an organisation receive a salary—weekly or monthly—and abide by the work-schedules established by the organisation. Substantially, the workload of individual workers depends on the amount of waste they are able to collect on the street, whereas the workload and work-rhythm of organized workers largely depends on the municipal-waste loads the organisations receive from the local authorities, following agreements between the latter and the WPs' groups themselves.

In this sense, the WP who decides to join an organisation has to rethink their own autonomy. This is one of the major difficulties expressed by people we interviewed, and one of the most mentioned factors used to explain the high turnover-rate within the WPs' organisations:

"The (individual) catadores want to preserve their independence, their rules. We try to explain to them that when organised, things work better, but we only succeed sometimes. These catadores come looking for us to sell us the material they collect, but they don't want to be part of an association: they have been doing this work alone for many years and we are certainly not going to change their minds." (LAF10, Porto Alegre)

The space for individual autonomy within the WPs' organisations seemed to be quite limited: in the organisations we visited, the work processes were rather standardized, and unfolded along a chain in which each WP carried out their work at an individual workstation. These findings were similar to the results shown in other studies on refuse collectors and street cleaners [3]. However, it does not mean that there were not attempts to introduce small and gradual innovations. In some cases, we found spaces of autonomy for workers—or rather, flexibility—especially in the scheduling of work shifts. This degree of flexibility was especially beneficial for women, since it allowed them to try to reconcile work obligations with family responsibilities:

"We were evolving, working with six people, and today thanks to God, we have a good income, a good job [. . .] When I still had that job at the factory, I couldn't do a lot of things. I was hustling all month just to be able to provide for my son: a medical treatment, a backpack. But when there was a presentation for Mother's Day (the holiday dedicated to me) at his school, my employer told me: 'no, you cannot be absent; if you go, your salary will be reduced'. With the association, it's not like that. We go to the children's presentations. They are the most important moments of their lives, the most beautiful. They will remember these moments for the rest of their lives. These are the important things I didn't have before. [. . .] In the factory where I worked, I couldn't do it. I just hustled all month." (CAF16, Turuçu)

In the WPs' organisations, working hours and other work-related issues are generally discussed at meetings held on a weekly basis. During these meetings, wages are also discussed, with some groups deciding on an hourly amount to be paid to each member (the more they work, the more they earn), while other groups allocate a fixed salary for each member of the group and a variable hourly-wage, related to the number of hours worked. In general, these forms of flexibility are not mentioned in the literature on dirty workers, and they seemed to be strictly linked to the self-organisation of work that characterises the WPs' organisations.

5.3. Giving Value to the Variety of Waste-Pickers' Tasks

Tasks related to the separation and reclassification of municipal solid-waste are generally repetitive. A large part of the work takes place around a conveyor belt (in few cases) or around a worktable (in the most part of cases).

The whole process of separation and reclassification of waste largely depends on market demand. Usually, WPs' organisations focus their activities on the materials the processing industries demand the most: PET-type plastics, aluminium, and cardboard. In some cases, they also recover electrical material from computers and household appliances, relying on the 'know-how' of a group member who specializes in this type of activity. In other cases, glass is also separated. Some interviewees described their workday as follows:

"We arrive here in the morning. We plan our workday. We put on music and work. Until our lunch break. We might take a break, smoke a cigarette. But the work is repetitive." (CCM18, Porto Alegre)

"We put on music. We can converse. Joke. Take a break. But we work here. We cannot stop. We have work schedules." (LAM13, Canoas)

Within this scenario, the fieldwork also pointed out a gender-based division of tasks, following traditional, stereotypical patterns. Men were usually assigned tasks requiring greater physical strength (operations at the weighing scales or the compactor) or demanding greater risk (such as handling electronic waste). These findings were consistent with the argument that physical effort and endurance in dirty, manual work can be an expression of personal power and resistance to the attributions of low occupational-prestige that characterise dirty work [8,11].

However, the repetitiveness of the waste pickers' work-routine joined to difficult working conditions that made the daily material-conditions of these workers particularly difficult, ultimately creating fertile ground for the phenomena of alienation. As a result, the limited autonomy and the material hardship of WPs' daily lives have the potential to reduce or hinder the positive effects generated by the attempts to reframe some meanings of waste-picking activities and the common identity-building processes we are describing in the text.

5.4. The Importance and Fragility of Collective-Identity Building

The forms of self-management developed by waste pickers go beyond the creation of new working-practices. They often assume political and social values that allow the waste pickers to redefine themselves according to principles and rules that are collectively constructed and aim to overcome a situation of extreme marginality.

Much of the empirical data shed light on this aspect of the multidimensionality of the waste picker as a person, as well as on the self-organised waste pickers as an organisation. For example, the interviewees rarely referred to the other members of the organisation using expressions such as 'worker' or 'colleagues', preferring instead to use 'person' (a pessoa) or 'people' (a gente). A waste picker explained this well, as she recounted the difficulties of managing a cooperative:

"The person starts to think that 'this is something I can hang onto', that 'the wage will be low, but I'll have something to eat'. Then we started to incentivise production and productivity. By evolving. Even reducing working hours. The cooperative dropouts and turnover stopped. Those useless quarrels. We planned. Because these are the problems: the electricity at home being cut, hunger . . . all this creates frictions, even in the cooperative. Imagine working in a sector like this, which makes you tired, which makes you feel dirty [. . .] You come home, and you have nothing, or rather, you know that they've cut your electricity, and your son has no shoes. [. . .] A gente [we] has overcome these difficulties together. An evolution. [. . .] Today, thanks to God, we have a decent salary; a job that satisfies us." (LCF17, Turuçu)

The interviews revealed many personal difficulties that emerged within the WPs' organisations, which made the path to building a stable and dignified working-reality even more difficult and uncertain. We recorded various unpleasant episodes and reports of difficult periods, which hindered the regular work-routine. In some cases, these groups had shown remarkable resilience, a capacity to move beyond the obstacles they encountered. When referring to this, the interviewees used the word 'process', which reflects the intertwining of changes made at both the personal and the group level. Moreover, during the interviews, workers often dwelt on topics including the 'value of work', 'working as a team', and participation in meetings.

"The first month I joined the association, I worked for free. The second month I earned 70 reais. For heavy work. I wanted that to change. Some people said it wouldn't change, except for the worse. Some left the cooperative. They didn't understand the process. Then we started all over again [. . .] As president, I started to think that you have to have a strategy. You must find a way to make people stay. The work was reorganised. Before, people worked all week to earn 50 reais. Then people started earning 50 reais in two days. We worked less and earned the same. People started to realise that collective management made sense." (LCF17, Turuçu)

The WPs' organisations we visited attempted to rebuild forms of mutual trust and collective identity, which seemed to be constantly put to the test by day-to-day management problems. The fieldwork shed light on the non-linearity feature of this 'process' and some relevant problems that can affect it. For instance, various interviewees underlined the fragility of the WPs' organisations: they said that many of these realities were shut down just a short time after they were born. The volatility of these organisations appeared to stem from both internal and external factors; among these factors, the relations with local administrations seemed to be considered a crucial factor:

"The candidate for mayor (prefeito) assured a group of catadores that once he won the elections, with a CNPJ in hand (In Brazil, the Cadastro Nacional Pessoa Jurídica (CNPJ) is an official registry created by the Brazilian Federal Revenue Service to recognise the existence of businesses and commercial enterprises), he would sign an agreement (convênio) between the cooperative and the prefeitura. Unfortunately, in the years that the prefeito remained in office, a convênio was never realised. It had been the mayor himself who, during the election campaign, had invited the catadores to get organized in cooperatives to be 'contracted' by the local government. The invitation triggered the creation of a series of networks with other organisations working in the area, aimed at developing social projects around the mayor's proposal. There were social projects (extensão social) to help informal groups of catadores form cooperatives. [. . .] The whole administrative process was initiated, the collection of signatures, the creation of a statute. Nevertheless, the process was completed within a few months. It was a record! The catadores were enthusiastic. Then, between 2012 and 2015, four different secretaries alternated in directing the municipality's environment sector. That was one problem. But the biggest problem was that the mayor had never thought about how to create an agreement, what to include in it. We gave him some examples from other local administrations, but he didn't even take them into consideration. One day, he said to me,

'how can I make a deal with catadores? They can't even write.' It was all a big bluff. Very sad. We spent time, had hopes, organising training courses, creating a cooperative, and the mayor betrayed all our expectations." (CLM19, São Borja)

In general, the presence of an agreement between WPs' organisations and local authorities seemed to be a factor able to strengthen and improve the economic and working conditions of waste pickers. However, the fieldwork highlighted a limited presence of agreements and a high level of heterogeneity in terms of content. In many cases, the agreements did not provide for an economic contribution in money, but rather in other forms of support. There are, for instance, local administrations that preferred to distribute lunch vouchers as compensation for the work of sorting waste. This practice was highly contested by the interviewees, who not only considered it to be economically unsatisfactory, but also detrimental to the waste pickers' status of workers. Still, this was not the worst situation in which a WPs' organisation could find itself. In fact, some local administrations decided not to provide any form of reimbursement for the work of sorting and separating waste, considering the loads of waste delivered free of charge to the depots of the associations and cooperatives to be sufficient.

In line with other studies [42,43], our empirical survey highlighted how widely the contents of these agreements can vary. Furthermore, they are rather short-lived (one year, two at most), rarely taking on the form of a formal service-contract; and, even when they do take on such a form, they mostly involve cooperatives that have already been operating for several years. Thus, a certain degree of segmentation among WPs emerges again, whereby higher levels of informality seem to correspond to greater uncertainty and greater levels of invisibility (from the point of view of local administrations).

Moreover, the relations with local administrations can be considered one of the main material factors that can affect the difficult attempts to build multidimensional collective-identities for WPs' organisations. Regarding this topic, what did emerge from the research was that the construction of collective identities is crucial to reduce the stigma that affected these informal dirty-workers. At the same time, many difficulties arose in this process, and they seemed to be inseparable from the co-presence of material and immaterial factors of the dirty jobs, which act on and react to one another.

6. Discussion and Conclusions

Over the most recent years, occupations related to the collection and disposal of urban waste, such as street cleaners, refuse collectors or waste pickers, have assumed an increasingly important role within urban economies, not only as crucial operators for translating into practice the supply of an essential service, but also as workers who, through their daily activities, make it possible to develop forms of circular economy [17,19,29,56,57]. Despite their growing importance, they continue to be part of the so-called dirty workers, subject to various forms of stigma and forced to deal with difficult working conditions and low wages. In many less-developed countries, those employed in this sector are also very often informal workers: a condition that adds further uncertainty, precariousness, and marginality.

In this situation of disadvantage, the literature on dirty workers has shown how these workers, overcoming a passive acceptance of their condition, try to create new positive meanings for their work, through actions and processes aimed at countering the stigma and strengthening their own self-esteem and sense of self [1,3]. However, so far, there are few studies that have tried to investigate the dirty workers who operate within the informal economy. This article therefore aims to deal with this knowledge gap by asking whether, and if so how, the status of informal worker can influence the efforts dirty workers extended in reducing the stigma associated with their jobs.

The study has shown that informal waste-pickers attempt to modify the material and symbolic aspects of their work by adopting strategies very similar to those that the dirty-worker literature has defined as reframing, recalibrating, and refocusing processes [2,7,10]. Specifically, the article showed how, within the studied WPs' organisations operating in

different urban contexts of Rio Grande do Sul, there are widespread attempts to redefine the meanings attributed to their work, in a positive sense. It is interesting to note how these attempts seem to take on a more accomplished form when they expand to extraworking dimensions in which the organisations of WPs are engaged. It is therefore when WPs' actions are open to the local community—through, for example, courses on the environment or cultural activities—that the process of redefining the meanings assigned to the work takes on more articulated forms, transforming WPs from simple providers of an essential service to 'civic actors' who play an active role within the communities in which they work [58]. In this type of case, the article has thus highlighted attempts aimed at building new individual and collective identities that go far beyond the attempts described by the traditional literature on dirty workers.

Furthermore, the more complex processes of redefining the meanings of work seemed to be closely linked to the self-organizing forms that characterize the work of the WPs. Regarding this issue, the evidence from the fieldwork underlined the fact that these groups of workers can be very heterogeneous in terms of internal organisation of work, relationships with external subjects, and objectives, as well as in the roles within the urban-waste collection and separation sector. Within this heterogeneity, the consolidation of the selforganising experiences appeared to depend on many factors, including relations with the public actor, and mainly with local administrations, which seemed to play a crucial role. From this point of view, the study showed various difficulties: agreements between local administrations and WPs' organisations were rare, they mainly involved the more structured WPs' organisations (cooperatives), and the contents were often uncertain. A 'dependency culture' approach still seemed to prevail on the part of local administrations, recognising the WPs' organisations more as self-organised groups of poor and marginal subjects, rather than as economic actors that perform an essential service for the community. This perception appeared to be an important obstacle for the attempts undertaken to reduce the stigma associated with the work of WPs and for a full recognition of their role as essential workers and active subjects within communities.

Finally, the application of analytical schemes developed by the literature on dirty workers to distinguish, understand and analyse material and immaterial aspects that characterize informal dirty-workers has allowed us to show some similarities as regards the reconstruction of the meanings attributed to dirty jobs, but also important differences, highlighting how the status of 'informal' can both increase the marginality of these workers but, at the same time, open the field to attempts to build new collective identities that go beyond the working dimension. In general, informal dirty-workers deal with material and symbolic aspects of their work, fighting against the stigma attributed to it through actions and strategies that seemed to be similar to those described in the dirty-workers literature. Furthermore, they also deal with the 'institutional' aspect of their work and the stigma that comes from political actors, given the importance of the relations with local administrations in the process of consolidating and strengthening the actions developed by workers. This clean-cut multidimensionality that the fieldwork highlighted encourages new empirical studies able to share different data-collection strategies, to better understand the phenomenon from different points of view [59].

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List of Abbreviations

WPs: waste pickers; PNRS: Política Nacional de Resíduos Sólidos/National Policy for Solid Waste; PMSB: Plano municipal de saneamento básico/municipal sanitation plan; PMGIRS: Plano municipal de gestão integrada dos resíduos sólidos urbanos/municipal plan for the integrated management of urban solid waste; NGO: non-governmental organisation; CNPJ: Cadastro Nacional Pessoa Jurídica/Official registry created by the Brazilian Federal Revenue Service (Receita Federal do Brasil) to recognise the existence of businesses and commercial enterprises.

References

- Perry, S. Collecting Garbage; Transaction Publishers: New Brunswick, NJ, USA, 1998.
- 2. Hughes, J.; Simpson, R.; Slutskaya, N.; Simpson, A.; Hughes, K. Beyond the symbolic: A relational approach to dirty work through a study of refuse collectors and street cleaners. *Work. Employ. Soc.* **2017**, *31*, 106–122. [CrossRef]
- 3. Slutskaya, N.; Simpson, R.; Hughes, J.; Simpson, A.; Uygur, S. Masculinity and class in the context of dirty work. *Gend. Work. Organ.* **2016**, 23, 165–182. [CrossRef]
- 4. Valtorta, R.R.; Baldissarri, C.; Andrighetto, L.; Volpato, C. Dirty jobs and dehumanization of workers. *Br. J. Soc. Psychol.* **2019**, 58, 955–970. [CrossRef] [PubMed]
- 5. Hughes, E.C. Work and the self. In *Social Psychology at the Social Psychology at the Crossroads*; Rohrer, J., Sherif, M., Eds.; Harper and Bros: New York, NY, USA, 1951; pp. 313–323.
- 6. Hughes, E.C. Men and Their Work; The Free Press: Glencoe, IL, USA, 1958.
- 7. Ashforth, B.; Kreiner, G. How can you do it? Dirty work and the challenge of constructing a positive identity. *Acad. Manag. Rev.* **1999**, 24, 413–434.
- 8. Dick, P. Dirty work designations: How police officers account for their use of coercive force. *Hum. Relat.* **2005**, *58*, 1363–1390. [CrossRef]
- 9. Douglas, M. Purity and Danger: An Analysis of Concepts of Pollution and Taboo; Routledge: London, UK, 1966.
- 10. Ashforth, B.; Kreiner, G. Dirty work and dirtier work: Differences in countering physical, social and moral taint. *Manag. Organ. Rev.* **2014**, *10*, 81–108. [CrossRef]
- 11. Deery, S.; Kolar, D.; Walsh, J. Can Dirty Work be Satisfying? A Mixed Method Study of Workers Doing Dirty Jobs. *Work. Employ. Soc.* **2019**, *33*, 631–647. [CrossRef]
- 12. Hodson, R. The Active Worker: Compliance and Autonomy at the Workplace. J. Contemp. Ethnogr. 1991, 20, 47–78. [CrossRef]
- 13. Hodson, R. Dignity at Work; Cambridge University Press: Cambridge, MA, USA, 2001.
- 14. Barad, K. Posthumanist performativity: Toward an understanding of how matter comes to matter. *Signs* **2003**, *28*, 801–831. [CrossRef]
- 15. Hardy, C.; Thomas, R. Discourse in a material world. J. Manag. Stud. 2015, 52, 680–696. [CrossRef]
- 16. Simpson, R.; Hughes, J.; Slutskaya, N. *Gender, Class and Occupation: Working Class Men Doing Dirty Work*; Palgrave: Basingstoke, UK, 2016.
- 17. Buch, R.; Marseille, A.; Williams, M.; Aggarwal, R.; Sharma, A. From Waste Pickers to Producers: An Inclusive Circular Economy Solution through Development of Cooperatives in Waste Management. *Sustainability* **2021**, *13*, 8925. [CrossRef]
- 18. Gutberlet, J.; Kain, J.H.; Nyakinya, B.; Oloko, M.; Zapata, P.; Zapata Campos, M.J. Bridging Weak Links of Solid Waste Management in Informal Settlements. *J. Environ. Dev.* **2017**, *26*, 106–131. [CrossRef]
- 19. Gutberlet, J.; Bramryd, T.; Johansson, M. Expansion of the Waste-Based Commodity Frontier: Insights from Sweden and Brazil. Sustainability 2020, 12, 2628. [CrossRef]
- 20. Chen, M.; Carré, F. The Informal Economy Revisited. In Examining the Past, Envisioning the Future; Routledge: London, UK, 2020.

21. Feige, E. Defining and Estimating Underground and Informal Economies: The New Institutional Economics Approach. *World Dev.* **1990**, *18*, 989–1002. [CrossRef]

- 22. Portes, A.; Castells, M.; Benton, L.A. (Eds.) *The Informal Economy: Studies in Advanced and Less Developed Countries*; John Hopkins University Press: Baltimore, MD, USA, 1989.
- 23. Coletto, D. Informal economy. In *The Wiley Blackwell Encyclopedia of Urban and Regional Studies*; Orum, A.M., Ed.; John Wiley and Sons Ltd.: Hoboken, NJ, USA, 2019.
- 24. Coletto, D.; Bisschop, L. Waste pickers in the informal economy of the Global South: Included or excluded? *Int. J. Sociol. Soc. Policy* **2017**, *37*, 280–294. [CrossRef]
- 25. Gutberlet, J.; Uddin, S.M.N. Household waste and health risks affecting waste pickers and the environment in low- and middle-income countries. *Int. J. Occup. Environ. Health* **2018**, 23, 1–12. [CrossRef]
- 26. Marello, M.; Helwege, A. Solid Waste Management and Social Inclusion of Waste pickers: Opportunities and Challenges. *Lat. Am. Perspect.* **2018**, 45, 108–129. [CrossRef]
- 27. Omotoso, K.O. Informal waste recycling activities: Implications for livelihood and health. *Afr. J. Sci. Technol. Innov. Dev.* **2017**, 9,785–793. [CrossRef]
- 28. Parra, F. Recycling: Yes, but with Recyclers; WIEGO: Cambridge, MA, USA, 2015.
- 29. Gutberlet, J. Grassroots waste picker organizations addressing the UN sustainable development goals. *World Dev.* **2021**, *138*, 1–12. [CrossRef]
- 30. Birkbeck, C. Self-employed proletarians in an informal factory: The case of Cali's garbage dump. World Dev. 1978, 6, 1173–1185. [CrossRef]
- 31. Samson, M. Accumulation by dispossession and the informal economy: Struggles over knowledge, being and waste at a Soweto garbage dump. *Environ. Plan. D Soc. Space* **2015**, 33, 813–830. [CrossRef]
- 32. Ogando, A.C.; Roever, S.; Rogan, M. Gender and informal livelihoods: Coping strategies and perceptions of waste pickers in Sub-Saharan Africa and Latin America. *Int. J. Sociol. Soc. Policy* **2017**, *37*, 435–451. [CrossRef]
- 33. Rosaldo, M. The Antinomies of Successful Mobilization: Colombian Recyclers Manoeuvre between Dispossession and Exploitation. *Dev. Change* **2022**, *53*, 251–278. [CrossRef]
- 34. Conceição Ribeiro, P.S.; Rutkowski, E.W.; Rezende, S. Negotiations and Conflict in the Implementation of a Waste Pickers' Cooperative: A Sociology of Translation Approach. *Sustainability* **2021**, *13*, 12889. [CrossRef]
- 35. Danese, G. One person's trash is another person's treasure: In search of an efficient property regime for waste in the Global South. *Waste Manag.* **2021**, *128*, 251–260. [CrossRef] [PubMed]
- 36. Dias, S.; Samson, M. Informal Economy Monitoring Study Sector Report: Waste Pickers; WIEGO: Cambridge, MA, USA, 2016.
- 37. Meira, R.; Dutra, D.S.; Yamane, L.H.; Siman, R.R. Influence of the expansion of the selective collection in the sorting infrastructure of waste pickers' organizations: A case study of 16 Brazilian cities. *Waste Manag.* **2020**, 77, 5058.
- 38. Oliveira Dias, M. Current facts on Brazilian cooperative societies. Glob. Sci. J. 2019, 7, 624-633.
- 39. Maiello, A.; Britto, A.L.; Valle, T.F. Implementação da Política Nacional de Resíduos Sólidos. *Rev. De Adm. Pública* **2018**, 52, 24–51. [CrossRef]
- 40. Carbonai, D.; Baum, J.V.; Camiz, S. Gestión municipal de residuos y ambiente institucional en el Rio Grande do Sul. *Rev. EURE–Rev. De Estud. Urbano Reg.* **2020**, *46*, 139–153.
- 41. Lima, M. Plasticidades recriadas: Conhecimento sensível, valor e indeterminação na atividade dos catadores de recicláveis. *Sociol. Antropol.* **2017**, *7*, 209–238. [CrossRef]
- 42. Sakamoto, J.L.; Silva de Souza Lima Cano, N.; de Oliveira, J.F.D.; Rutkowski, E.W. How much for an inclusive and solidary selective waste collection? A Brazilian study case. *Local Environ*. **2021**, *26*, 985–1007. [CrossRef]
- 43. Calderón Márquez, A.J.; Silva de Souza Lima Cano, N.; Rutkowski, E.W. Inclusion of Waste Pickers into Municipal Waste Management Systems: A Comparison Between Colombia and Brazil. *J. Environ. Dev.* **2021**, *30*, 395–425. [CrossRef]
- 44. Rutowski, J.E.; Rutowski, E.W. Expanding worldwide urban solid waste recycling: The Brazilian social technology in waste pickers inclusion. *Waste Manag. Res.* **2015**, *33*, 1084–1093. [CrossRef] [PubMed]
- 45. De Oliveira, C.T.; Luna, M.M.; Campos, L.M. Understanding the Brazilian Expanded Polystyrene Supply Chain and Its Reverse Logistics Towards Circular Economy. *J. Clean. Prod.* **2019**, 235, 562–573. [CrossRef]
- 46. Rutkowski, J.E. Inclusive Packaging Recycling Systems: Improving Sustainable Waste Management for a Circular Economy. *Detritus* **2020**, *13*, 29–46. [CrossRef]
- 47. Lima, N.S.; Mancini, S.D. Integration of Informal Recycling Sector in Brazil and the Case of Sorocaba City. *Waste Manag. Res.* **2017**, 35, 721–729. [CrossRef] [PubMed]
- 48. Cardano, M. La Ricerca Qualitativa; Il Mulino: Bologna, Italy, 2011.
- 49. Cardano, M. Defending Qualitative Research: Design, Analysis, and Textualization; Routledge: London, UK, 2019.
- 50. Van Eemeren, F.H.; Grootendorst, R. *Una Teoria Sistematica Dell'argomentazione*. *L'Approccio Pragma-Dialettico*; Mimesis: Milan, Italy, 2004.
- 51. Godden, D.M.; Walton, D. Advances in the theory of argumentation schemes and critical questions. *Informal Log.* **2007**, 27, 267–292. [CrossRef]
- 52. Mason, J. Qualitative Researching; Sage: London, UK, 2002.
- 53. Patton, M.Q. Qualitative Research and Evaluation Methods: Integrating Theory and Practice; Sage: London, UK, 2015.

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- 54. Scheirer, M. Qualitative Content Analysis in Practice; Sage: London, UK, 2012.
- 55. Mortensen, D.H. How to Do a Thematic Analysis of User Interviews. Available online: https://www.interaction-design.org/literature/article/how-to-do-a-thematic-analysis-of-user-interviews (accessed on 15 January 2023).
- 56. Maiello, A. In, Out or Beyond? Waste Pickers and Policy Networks: A Story from Jardim Gramacho (Rio de Janeiro). *Sustainability* **2022**, *14*, 16977. [CrossRef]
- 57. Navarrete-Hernández, P.; Navarrete-Hernández, N. Unleashing Waste-Pickers' Potential: Supporting Recycling Cooperatives in Santiago de Chile. *World Dev.* **2018**, *101*, 293–310. [CrossRef]
- 58. Lichterman, P.; Eliasoph, N. Civic action. Am. J. Sociol. 2014, 120, 798–863. [CrossRef]
- 59. Flick, U. Doing Triangulation and Mixed Methods; Sage: London, UK, 2018.

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