







# A Behavioral Systems Approach to a Brazilian Restorative Justice Organization

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## Abstract

Restorative justice (RJ) corresponds to a set of actions, programs, and practices to promote a more autonomous conflict resolution process. RJ includes involving all individuals who have interest in a particular conflict, seeking reparation for the harm caused to the victim and accountability by the offender, and identifying antecedent or consequent conditions that could be related to such conflicts. This practice is being implemented in Brazil's justice system as part of a national public policy in an attempt to solve conflicts in a more autonomous fashion, which in turn could reduce the time and cost produced by traditional justice procedures. The main objective of this article is to analyze a Brazilian public organization that works with restorative practices according to the perspective of Behavioral Systems Analysis (BSA). Toward this objective, tools such as Total Performance System (TPS) and metacontingency, and intervention models such as the Behavioral Systems Engineering Model (BSEM) were combined with a literature review to analyze organizational practices. Results suggested gaps between the prescribed public policy and its actual implementation. Some aspects of the analysis are highlighted, including the lack of operationalization of monitoring criteria by the control agencies of the judiciary system and the absence of feedback regarding the service (both by the users of the service and those interested in its delivery). Recommendations such as implementation of a data control system, are provided with the aim of ensuring the success of this organization and the effective implementation of the public policy.

**Keywords** Behavioral systems analysis · Metacontingency · Organizational practices · Restorative justice

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Culturo-behavior science (CBS) is an emerging concentration in behavior science with a corresponding set of concepts and procedures that has an inter- and transdisciplinary approach to social problems, coherent with Skinner's (1981, 1987) proposals. It makes use of principles and concepts from behavior analysis (BA) and other disciplines, such as anthropology, sociology, and systems science (Cihon et al., 2021). A part of CBS is behavioral systems analysis (BSA), a subset of BA that is interested in analyzing and promoting improvements in the performance of individuals and groups within organizations (McGee & Crowley-Koch, 2021). Although BSA has traditionally been valuable for assessing for-profit organizations, recent research has shown promise in its application to evaluate public and nonprofit entities, as well as public policies. This emerging trend contributes to a better understanding and enhancement of their practices by highlighting selective processes that are currently in operation. In this article, we report the use of a CBS framework to evaluate a public organization responsible for implementing restorative justice practices in Brazil's justice system.

BSA recognizes that selection processes take place at both the individual and cultural levels (Glenn & Malott, 2004)<sup>1</sup> and that organizations are, in essence, open systems (i.e., groupings of elements that adapt to the dynamics of an environment; Malott, 2003). The studies carried out in BSA employ tools and units of analysis such as the metacontingency (Glenn, 1986; Glenn et al., 2016; Malott, 2003) to examine organizational practices. The metacontingency is a unit of analysis defined as "a contingent relationship between 1) recurring interlocking behavioral contingencies (IBCs) that have an aggregate product (AP) and 2) an environment or selecting conditions" (Glenn et al., 2016, p. 13). The concept of IBCs is defined by Malott (2003) as "the behavior of at least two participants, in which any component of the behavioral contingency or product of one participant interacts with elements of the behavioral contingency or product of other participants" (p. 33). The metacontingency model helps to describe processes of selection at the cultural level, drawing the attention of scientists and practitioners to the consequences that influence cultural and organizational practices.

Another tool often employed in BSA is the Total Performance System (TPS; Brethower, 1972; Brethower & Dams, 1999), which can be used to analyze interactions between the elements of a system and the relationship between the system and its environment. The TPS can be used at different levels of analysis depending on the objective: (1) macrosystem level, which comprises the larger system in which the organization is analyzed; (2) organization level, which reveals specific aspects of the functioning of that system and its relationship with other elements of the environment; and (3) individual level, which verifies reinforcement contingencies arranged to influence the behavior of those involved in that organization that is required for it to achieve its objectives (Malott, 2003). As suggested by Malott (2003), the analysis should start from the highest level (macrosystem) and go to individual contingencies only as needed.

The version of the TPS used in this study followed the identification of the elements described by Malott (2003): (1) mission, a description of what an organization intends to produce, taking into account the macrosystem in which it is inserted; (2) products, what is generated by the organization as a result of the coordination of functions; (3)

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<sup>1</sup> A glossary of acronyms is provided after the Final Considerations section.

receiving system, who receives the product or who is interested in the organization's products and services (stakeholders); (4) feedback from the receiving system, consequences provided by clients or stakeholders about the product delivered; (5) processing system, how the organization's products are generated; (6) feedback from the processing system, internal information about the organization's functioning (e.g., cost, time spent on a process); (7) resources needed to deliver the product (i.e., trained people, information, equipment); and (8) competition (for resources and/or customers).

The TPS and metacontingency are related such that both allow for the identification of behavioral relations, making it possible to track feedback processes (or cultural consequences) that keep them in operation. These strategies, when applied in BSA studies, are organized into intervention models, one of which is the Behavioral Systems Engineering Model (BSEM), proposed by Malott (2003). BSEM consists of multilevel analysis of an organization (e.g., macrosystem, organization, process, task, behavior, and management) based on two components: (1) analyzing behavioral systems based on metacontingencies and (2) creating and maintaining changes based on behavioral contingencies. For this study, we took the following steps: (1) evaluating the macrosystem for the organization; and (2) assessing the organization as a system, which involved using the TPS to identify the variables that affect the organization as a whole (Malott, 2003).

The BSEM approach fosters BSA's interest in benefiting organizations with systemic changes, considering different aspects of elements that interact within and outside of organizations, and ensuring the consistency between levels. BSA is usually aimed at meeting the demands of private organizations (Diener et al., 2009; McGee & Crowley-Koch, 2021; Redmon & Mason, 2001) so that they are more likely to succeed, increasing in profitability, consumer satisfaction, market share, etc. However, some works have proposed applying BSA tools in nonprofit contexts (e.g., Amorim et al., 2022; Cran et al., 2023).

Amorim et al. (2022) evaluated a Brazilian public policy to assist women victims of violence. To this end, the TPS was used as an analysis tool, and the BSEM as an assessment model (Malott, 2003). The results associated with this study identified the receiving systems of the service offered (e.g., women, children of women victims of violence) and which procedures are involved in the feedback from the processing and receiving systems (e.g., costs, information about the service). Moreover, the TPS helped to identify the relationship between the product (defined as humanized and integrated care for women) with the receiving system, which contains stakeholders such as the feminist movement, media, etc. In this type of organization, the people who benefit from the organization's activities (women victims of violence) are not the same people who are providing cultural consequences that could foster organizational survival. This finding could illustrate that the actual receiving system demands might not be what are providing the cultural consequences that maintain the organization's processes. The authors made recommendations such as recording data and information about the service delivered at the municipal level.

Cran et al. (2023) analyzed cultural practices in two community gardens, identifying the variables and practices that favor the maintenance of this type of organization. Ethnographic research methods, observation, and structured interviews were conducted with an adaptation of the Behavioral Systems Analysis Questionnaire

(BSAQ; Diener et. al, 2009). The information collected was organized using the BSEM (Malott, 2003). Data obtained demonstrated that both gardens had similar practices as to what the literature considered ideal for this type of organization; however, the researchers identified barriers such as an excessive amount of time required from coordinators and volunteers to maintain the garden, lack of community support and lack of funding. Some recommendations were made to mitigate the problems faced by the gardens, such as the implementation of harvest targets through data tracking software, compensation for time spent by coordinators on garden activities (e.g., going more days of the week as opposed to going a few times, requesting less time per day) and looking for new volunteers within the community.

The works of Amorim et al. (2022) and Cran et al. (2023) show that BSA was relevant to assess nonprofit organizations. It is noteworthy that adaptations were necessary when applying the BSA analysis models to these types of social/cultural systems, especially concerning issues related to identifying the receiving system and its feedback. The recommendations made in the two studies have similarities about data collection procedures and management of data for internal planning. Finally, the works expanded the use of an organizational model applied to public institutions.

To propose adjustments and improvements in the processes comprising an organization, it is important to understand the environmental and organizational variables that are operating inside (and outside) of it. From a BSA perspective, it is possible to identify which variables (including cultural consequences in the sense that they are described in metacontingencies) help or hinder the success of an organization. Therefore, the present study aimed to conduct a BSA of an organization associated with the Brazilian judiciary system. This organization's main objective is the implementation of restorative justice practices. The purpose of the current analysis was to develop a better understanding of which variables are linked to the maintenance of the restorative justice practices employed.

Restorative justice (RJ) is presented as a form of conflict administration based on the active participation of those involved, and as a way to respond to the needs of the victim, offender, or community (Silva Neto & Santos, 2018; Zehr, 2008). This set of practices constitutes a framework for comprehending and addressing conflict in a socially responsible manner, empowering individuals to identify the conditions necessary for the restoration of harmonious communal relations. RJ has recently been implemented in legal environments and seeks to include all parts in the processes of repairing damages and holding the offender accountable. At present, RJ programs and actions are available as an alternative to retributive (or traditional) justice in state and federal courts, as presented by a mapping study organized by the National Council of Justice (Conselho Nacional de Justiça [CNJ], 2019b).

Zehr (2008, 2012) has outlined some characteristics of retributive justice, which is based on the notion that punishment for crimes should be determined and applied by the judiciary system. This is accomplished by following the characteristics provided by law with the aim to bring benefits to both the individual and the community. On the other hand, RJ has characteristics that are opposite to the retributive model, especially in terms of how to respond to a crime (i.e., how punishment is applied according to the perception of victim and offender) and how to include a response to the harm generated by the conflict. An analysis of the implications of each of these

models is beyond the scope of the current article; however, interested readers are encouraged to review Secco and Lima (2018) who provide such an analysis.

Recent studies have suggested the possibility of discussing RJ from the standpoint of BA. For instance, Santos (2014) proposed an RJ program in a public school in the southern area of Brazil. The method implemented by the author was the restorative circle,<sup>2</sup> which corresponds to formal interactions with predefined protocols, assisted by a facilitator (Marcucci, 2021). Following the program, a reduction in aggressive behavior was observed. However, this effect did not persist in the long-term evaluations of the agreements made in the restorative circles.

Other studies such as Silva and Gallo (2016) conducted a theoretical investigation aiming to identify common elements between RJ and BA. They argued that the procedures used in restorative practices are like the use of differential reinforcement of alternative and desirable responses, as well as the development of repertoires of self-knowledge and self-control. In addition, Vaccari (2017) analyzed the individual and cultural consequences resulting from the use of a program that aimed to establish RJ as a judicial practice. Results have shown that the program analyzed by Vaccari described the consequences in mentalistic and generic ways, without considering environmental variables in its analysis. This research also highlights the importance of identifying and evaluating RJ programs as a set of cultural practices.<sup>3</sup>

Starting from this proposition, other concentrations in BA—especially within CBS—could provide tools to evaluate the application of justice as a cultural practice, focusing on the organizational practices involved in its implementation. This article presents how this method was applied to a public organization responsible for applying restorative justice practices. We present an example of how such activity was carried out, as well as the necessary adaptations. Furthermore, the work presented here promotes an approach to social justice while utilizing BSA tools to analyze cultural and organizational practices within the justice system. Thus, it is expected that replication in other RJ organizations will be possible, as well as indicating possible ways of employing the tools used here for the analysis of nonprofit organizations, contributing to social change.

## Method

### Phase I: Information about Best Practices

This stage consisted of an interpretative/documentary analysis using the method presented by Borba (2007, 2024) and Tourinho (2007). The objective of this phase was to generate data about RJ and its application in legal contexts based on descriptions

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<sup>2</sup> It is beyond the scope of this study to delve into descriptions of restorative procedures. For detailed descriptions on the method and practices in restorative circles, we recommend Pranis (2011) and Zehr et al. (2015).

<sup>3</sup> The cultural practice concept used by Vaccari (2017) is based on the one presented by Carrara and Zilio (2015), which corresponds to the replication of behaviors by members of a group that, in turn, produces consequences for the group. This notion implies that these practices are occurring through behavioral processes at the ontogenetic level.

in specialized literature. The results of these analyses served as the basis for adjusting the questionnaires used in the interviews (as described in Phase II below), describing the RJ practices as discussed in the literature, and relating what was found with the results of the next phases. All results for this section are presented and intertwined with the discussion of the interviews.

## Phase II: Recruitment and Interviews

For the second phase, we selected an organization responsible for maintaining and implementing a RJ public policy in a judicial unit of Brazil. This phase aimed to identify specific information about this organization and its relationship with other systems (i.e., tracking communication between sectors through internal and external feedback flows), allowing the description of the contingencies and metacontingencies involved in the organization's practices.

The selected organization is a subsystem of a larger judiciary institution, located in a city in Northern Brazil. This larger judiciary institution is a part of the Brazilian Judiciary system. It should be noted that the chosen organization is the sole unit within the main institution responsible for implementing RJ practices. It is comprised of 11 public servants, divided into administrative and finalistic activities (e.g., applying the RJ practices with the assisted population).

Interviews were conducted with the organization's public servants from the judiciary system and carried out using an adaptation of the Behavioral Systems Analysis Questionnaire (BSAQ; Diener et al., 2009).<sup>4,5</sup> The adaptations to the BSAQ were made to ensure greater suitability to the nature of the organization (i.e., a justice and public institution) while maintaining its categories and overall structure. An example of an adaptation is found in the Internal Feedback section, which originally read "What information is collected about processing system performance? (e.g., quality, quantity, timeliness, cost, safety)" (Diener et al., 2009, p. 117). The adapted question reads: "Is information collected on how the processing system is functioning? (e.g., intervention time, quantity of procedures, nature of procedures)." The BSAQ is applied in three levels, namely (1) organizational level; (2) process level; and (3) performance level. In this study, we conducted only organizational-level interviews given the time available to complete the analysis.

Three public servants from the organization were interviewed. All three were directly involved in the organization's core activities and interdepartmental interactions. The first interview involved two employees responsible for daily operations and interactions with other departments within the unit. The final interview, described below in Phase III, was conducted with the organization's leader.

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<sup>4</sup> Specific data about the employees of this organization is not included to protect their anonymity. The authors would also like to point out that the missing elements should not hinder the contributions of this article, because it aimed to present how the work was done, thereby allowing its replication in other public institutions.

<sup>5</sup> The adapted questionnaire may be requested from the corresponding author.

### Phase III: Data Organization and Analysis

Malott's (2003) BSEM proposes interventions that sustain long-term changes in organizations based on three units of analysis: behavioral systems, metacontingencies, and behavioral contingencies.

In the first stage, the macrosystem to which the evaluated organization belongs was identified, as well as its mission. The information collected from the interviews and through document analysis was arranged to identify the macrosystem and the expected aggregate product (i.e., what is produced by the organization). In this way, it was possible to assess the mission of the organizational system in question. At first, the data relating to the mission found in the document analysis and interviews was evaluated based on Diener et al. (2009) and Malott (2003). Then, the information was organized graphically containing the elements of the TPS (using the draw.io platform).

A mission formulation guide proposed by Malott (2003) was used to propose a statement, containing the essential elements for the organization (e.g., products, receiving system, internal and external feedback). We also used the ACORN test (Gilbert, 1978), which is an acronym for the following terms: (1) accomplishment, which must identify an accomplishment and not just the description of behavior; (2) control, the people who work in this organization must have control over the processes included in the mission—in other words, the products must be the result of their own work; (3) overall objective, the mission must contain an objective that encompasses all organizational processes; (4) reconciled, the mission must be compatible with other objectives of the institution and (5) number, must have ways of measurement of what is included in the statement.

Then, the second stage was undertaken, which consisted of analyzing the organization as a system using the TPS. At this time, the objective was, after recognizing the aspects of the macrosystem, to understand the various processes that comprise that system, especially taking into consideration the main products the organization generates and how they adjust to the demands of the receiving system. (i.e., who receives the products or who is interested in them).

After the second stage, the information obtained for both levels (i.e., macrosystem and organizational) was organized into the BSEM model and submitted for consideration by the team responsible for the organization, including its leader. A set of suggestions based on the analyses made here was also constructed and shown to the team. These propositions were then presented, discussed, adjusted, and validated by the organization's team, for study and future implementation. Because these propositions are specific to this organization, they will not be presented in detail, which aims instead to present the model that was used.

### Results and Discussion

This section presents the data found through document analysis and interviews. The presentation of the information starts with a brief conceptualization of the terms, followed by the presentation of data from the document analysis and interviews in a narrative manner, respectively. At the end, we present a discussion about the analysis of the organization and its practices.

## Environment

Environment is understood as the external variables that have a function for the organization, such as the economy, government, and culture (Glenn & Malott, 2004; McGee & Crowley-Koch, 2021). The adoption of self-composed forms of conflict resolution (i.e., methods that ensure cooperative action among those involved in a legal conflict) in the judiciary system has been influenced by several factors. These include the high number of legal proceedings, as well as pressure from international human rights organizations advocating for solutions to social problems (CNJ, 2019b; Cruz, 2016).

As pointed out by Cruz (2016), the retributive character of the judicial cases is predominant in the Brazilian justice system. Self-composed practices like RJ are less likely to be explored in this context, which increases the number of processes that the system must handle in a formal (and bureaucratic) manner. Initiatives have been introduced to modernize state services due to its perceived ineffectiveness. These initiatives were implemented following the Judiciary Reform, which was brought to fruition with the approval of Constitutional Amendment No. 45 (Emenda Constitucional No. 45, 2004). This amendment established, among other things, the National Council of Justice (CNJ) as the control and oversight body for the legal activities of the judiciary system (Lima et al., 2016).

During the implementation of the judiciary reform, discussions were held on how to effectively provide guarantees for legal rights and ensure that state mechanisms can accomplish this objective. This context gave rise to debates regarding conciliatory methods in the judiciary system. At the same time, an international movement was emerging, emphasizing the need to include self-composed methods in legal procedures, supported by the deliberations of the United Nations (UN). Resolutions 1999/26, 2000/14, and 2002/12 addressed the application of RJ, with recommendations for member countries to implement it (Resolução No. 225, 2016).

Resolution No. 225 (2016) marks the beginning of the implementation of RJ as a public policy in the Brazilian legal system, as well as the goals established by the CNJ in its subsequent annual planning. Salmaso (2016) argues that there is a growing interest in using self-composed methods of conflict resolution because of economic advantages (e.g., reducing the use of public resources to reach a penalty for crimes and reaching faster agreements than the traditional methods). Also, self-composed methods could foster social transformation as the process could favor IBCs that allow for the occurrence of desirable repertoires of change. However, it is important to note that other variables can act as obstacles to the effective implementation of this public policy.

Traditional litigation practices, for example, may reduce the likelihood of consensual methods emerging, as they reflect a culture's inclination toward resolving disputes through contentious legal means rather than collaborative actions. Thus, in such practices, depriving others of access to reinforcement seems to be a preferable option (e.g., incarceration of an offender), because it tends to persist and function more reliably compared to alternative practices like self-composed methods.

The discussion in this section offers an overview of the actions of sectors such as the UN, the Ministry of Justice and Citizenship, and the CNJ, which acted as



promoters of the RJ movement within the Brazilian legal system, selecting certain IBCs related to the creation of the National Restorative Justice Policy (NRJP; Resolução No. 225, 2016), which in turn generated RJ programs and actions in the country's courts. Such actions changed the contingencies of selection for cultural practices, seeking to facilitate the emergence of strategies that can produce gains for the culture—the guarantee of rights and conflict resolution—in a way that is based more on collaborative actions, and less on coercive actions.

It is in the cultural environment described here that we can understand the emergence and functioning of sectors or units in courts of justice that involve RJ practices. Thus, it is possible to understand what we will highlight as the macrosystem in which such organizations are formed and the mission they seek to accomplish.

### **Mission and Macrosystem**

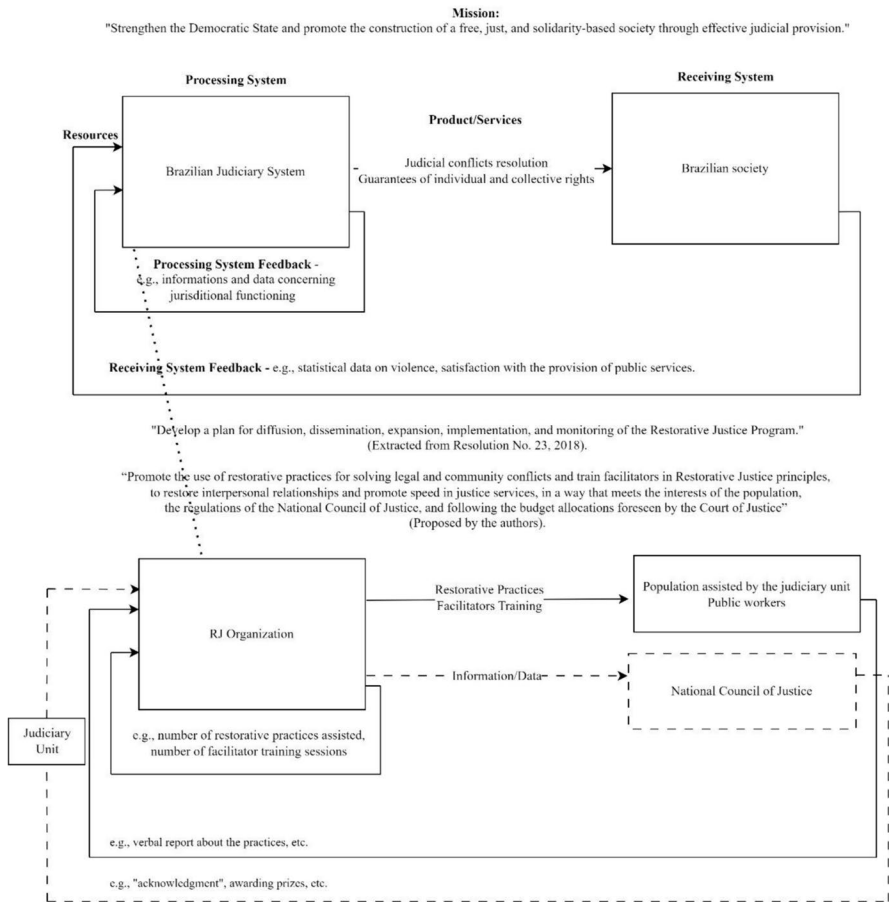
A mission can be understood as a statement that comprises the overall objectives of an organization (McGee & Crowley-Koch, 2021). A well-established mission includes elements of the organization's macrosystem in its statement, allowing the organization to adapt to changes in the environment.

The macrosystem, according to Malott (2003), is “the system that contains the organization we are analyzing” (p. 46). The organization analyzed in this article is one of the systems that make up the Brazilian judiciary. The justice system's goal is to resolve disputes that arise in society through the application of the law, according to the Federal Constitution of 1988 (Silva, 2005). The service provided by this system revolves around conflict resolution and the guarantee of individual and collective rights. The mission statement of this organization is described in Resolution No. 325 (2020) as “Do Justice.” A more detailed description can be found on the CNJ website, which describes the mission as to strengthen the democratic state and promote the construction of a free, fair, and supportive society through effective jurisdictional provision (CNJ, 2015). A graphical TPS representation of the macrosystem and its relation to the organization can be seen in Fig. 1.

The documents related to the application of RJ in the legal system highlight a set of objectives for organizations of this nature. These include providing clarity about the social and institutional structures that act as motivators of violence, addressing the needs of those involved, and holding accountable those who were directly or indirectly responsible for the occurrence of the damage (Cruz, 2016; Resolução No. 225, 2016). A more complete statement appears in Article 10 of Resolution No. 23 (2018), which establishes the attribution of “developing a plan for diffusion, dissemination, expansion, implementation and monitoring of the Restorative Justice Program” (p. 8).

During the interviews carried out with BSAQ, it was possible to understand that a broad objective involves “developing a plan for diffusion, dissemination, expansion, implementation, and monitoring of a Restorative Justice program at the state level” (as mentioned in the interviews). This declaration is an extension of the objectives established by Resolution No. 225 (2016) and Resolution No. 23 (2018).

The statements found in documents, normative acts, and data collected in interviews report comprehensive objectives as suggested by McGee and Crowley-Koch



**Fig. 1** Macrosystem and Its Relationship with the Organization’s TPS

(2021); however, they do not necessarily consider the elements of the macrosystem as suggested by Malott (2003). Furthermore, the statements in the documents and interviews present an emphasis on activities (e.g., developing a dissemination plan, and promoting strategies) but fail to provide a clear description of the expected outcomes of these activities (see Gusso & De Luca, 2017, for a more detailed discussion). Based on Malott’s mission formulation guide, it is possible to propose the following adjustments to the mission: “Promote the use of restorative practices for solving legal and community conflicts and train facilitators in Restorative Justice principles to restore interpersonal relationships and promote speed in justice services in a way that meets the interests of the population, the regulations of the National Council of Justice, and follows the budget allocations foreseen by the Court of Justice.”

The proposed statement incorporates the product of the macrosystem (judicial conflicts), feedback from the receiving system (satisfaction for the population and the National Council of Justice, as presented later), and feedback from the

processing system (use of resources in an economical manner). The expected results from the delivery of restorative services (e.g., restoring relationships and promoting speed in justice services) were also included, as an attempt to identify the effects of organizational practices. All items for the ACORN test (Gilbert, 1978) were also included in the proposition.

Some adjustments to Malott's (2003) proposal were applied to the mission statement, such as the inclusion of the CNJ in the statement. This was included due to the significant disparities between the private world and the public sector, both of which will be addressed in detail in the Receiving System section. In the private sector, it is simpler to track which consequences arranged by the receiving system support the functioning of the organization (normally the profit), which does not always occur so clearly in public service agencies. Although the population served by the judiciary plays a role in the proposed mission, they do not always have a direct influence on administrative decisions or financial resources. In other words, the consequences provided by those who receive the service have limited power in controlling the variables that keep the organization functioning, suggesting that other cultural consequences are acting as selectors of some organizational practices. This discrepancy affects the extent to which the public service agencies align with the interests of its recipients, while also serving the interests of the group that manages these services (such as legal operators, and public managers).

## **Products and Services**

Products or services are what result from interrelated IBCs in an organization (Malott, 2003), or simply what is produced and delivered to a receiving system. The organization analyzed here within provides conflict resolution services using self-composing techniques and methodologies. Through the interviews, it was possible to verify that the services include restorative practices, which are divided into nonlegal and legal actions. The first is carried out in partnership with other public sector bodies (e.g., Municipal Secretariat of Education and Culture, Extraordinary Secretariat of Human Rights and Citizenship); the second refers to disputes that are processed within the judiciary system. These cases are sent to this organization by judges who determine whether RJ could be used to resolve the case.

In addition to restorative practices, training for people who could apply RJ practices (facilitators) is also offered. This training is provided by a member of the management team in collaboration with other public service organizations who train employees of these institutions.

## **Receiving System**

The receiving system comprises the individuals who receive the organization's products or services (Malott, 2003; McGee & Crowley-Koch, 2021). Another part of the receiving system is the stakeholders which, in the context of public administration,

can be understood as “sectors for which the organization’s mission is a (non-financial) value” (Amorim, 2022, p. 150). In the private sector, customers and stakeholders are the people who provide consequences (i.e., money for purchasing the products or services) that are essential for the maintenance of the organization.

The primary recipients of the service provided by this RJ organization would be the population assisted by the justice services, and in particular, the members of the public who have a dispute and who have agreed to resolve it through self-composed methods. During the interviews, the public was classified into three categories. The first group consists of individuals who have legal cases pending in court. The second group is comprised of community members who benefit from institutional collaborations with other sectors, such as the City Hall. Lastly, the third group includes employees of the judiciary (when the organization is summoned to deal with labor problems between workers).

The stakeholder of this organization corresponds to the National Council of Justice (CNJ), presented in the Environment section, as the CNJ is the body that acts with respect to the control for the administrative and procedural transparency of the Brazilian Courts of Justice. As provided in Article 3 of Resolution No. 225 (2016), it is up to the CNJ to plan a project to promote activities that support RJ. The data collected through the BSAQ helps identify the position of the CNJ as a stakeholder within this organization. This is based on the influence of the CNJ assessments (i.e., the criteria established by the CNJ assessments exert control in the maintenance or change of organizational processes).

Based on the considerations made in this section, it is important to highlight that the descriptions provided in the BSA literature (Diener et al., 2009; Malott, 2003; Malott & Glenn, 2006; McGee & Crowley-Koch, 2021) include an analysis of functional terms used to identify the actors and sectors involved in an organization. In this study, we decided to group the direct recipients of the justice services (i.e., people who use the service, community members, and employees) along with CNJ within the receiving system, in agreement with the consulted literature. However, it is important to note that these groups do not dispose of the same cultural consequences to the organization; hence, there is no direct equivalence in the use of these terms, unlike in the context of private organizations. This distinction can be seen as a limitation of this analysis model when applied to public organizations.

Finally, attributing the stakeholder role to CNJ entails monitoring the cultural consequences under which certain IBCs are sustained and established within organizational processes. The attribution of the CNJ as a stakeholder to the analyzed organization was due to the institutional function established by Brazil’s constitution. In addition, the CNJ is an integral part of the Brazilian judiciary; and as such, it carries out administrative and managerial functions that can affect other systems. This influence can lead to the adoption of cultural and organizational practices that align with the macrosystem’s mission.

## Receiving System Feedback

This category refers to which consequences are presented by those who receive the products or services of the organization (Malott, 2003; McGee & Crowley-Koch, 2021). Referring to Resolution No. 225 (2016), provisions for evaluating and monitoring restorative practices are identified (e.g., Art. 18 and Art. 20).

CNJ also identifies some feedback strategies for courts/organizations that work with restorative practices, such as the “acknowledgment” provided to courts (CNJ, 2019a). The nature of the “acknowledgment” offered to public organizations may be associated with granting awards (as mentioned later in this section). Also, official documents have proposed that CNJ is responsible for partnering with universities and/or courts to promote research aimed at identifying how RJ is being applied in the judiciary context. This would include suggestions for research topics, such as examining the satisfaction levels of those involved, and whether the actions were successful in promoting a reduction in violence (CNJ, 2019a).

As viewed in this section, normative documents prescribe how CNJ can monitor RJ programs and conduct research in collaboration with other institutions. However, there is no clear systematization of how to collect, analyze, and use the data to inform the organization about its internal procedures. Furthermore, concerning the aspects defined for the prescription of feedback by the CNJ, a similar problem to that addressed in the Receiving System section arises. The documents state that CNJ will encourage the implementation of strategies that are considered here as feedback from the receiving system (e.g., satisfaction, reduction of violence). However, there is no certainty that these strategies have been executed and if they meet the requirements to function effectively as feedback. In other words, it is unclear whether the data collected informs the organization about its processes and if it enables them to redefine these processes accordingly.

From the data obtained by BSAQ, it becomes evident that there is little feedback from those who receive the service directly. This is due to the complexity perceived by the RJ organization team on quantifying subjective concepts such as reconciliation, satisfaction, and accountability of the offender. This information is similar to the data obtained by Santos (2014) and Vaccari (2017) when dealing with the difficulty of operationalizing terms referring to RJ. An attempt to gather feedback is often done through verbal reports during dialogues with restorative practice facilitators. However, this information is not collected systematically and therefore does not result in any changes to the organization’s internal processes.

As mentioned earlier, CNJ is responsible for the administrative control of the courts of justice, and as such, monitors things like the budgetary guidelines. It does not interfere with the court’s budget directly, but it can apply consequences if they fail to meet certain established goals known as macro challenges. The CNJ Quality Award is one such consequence, which awards quality seals (e.g., Excellence, Diamond Quality, Gold Quality, Silver Quality) to courts based on their scores in four categories: governance, productivity, transparency, and data and technology (Portaria Presidência No. 82, 2023).

The strategy of awarding courts based on recognition seals provided by CNJ can function as a controlling variable for the IBCs taking place in the organization presented here. If the judiciary unit (which contains the organization analyzed in this study) performs unsatisfactorily in the evaluations, it could negatively affect the workers. This may result in changes in job duties, reassignments, job transfers and even raises concerns regarding productivity, especially considering the public money that is invested in the maintenance of this public organization. Furthermore, verbal stimulation (e.g., disapproval) can function as a behavioral consequence for

the interlocking of individual consequences, as indicated by research conducted with experimental microcultures (e.g., Almeida et al., 2020). In addition, it is worth considering that these strategies offer consequences to the judiciary unit as a whole though not specific to the work provided by the RJ organization. Delivering direct feedback (or cultural consequences, as indicated later in this section) could bring more effective outcomes such as shaping employee behavior aligned with organizational goals as well as selecting or maintaining IBCs in the culturo-organizational level (de Carvalho et al., 2017; Daniels & Bailey, 2014; Tourinho, 2013).

In the private sphere, dissatisfied customers may cease to seek services from a particular organization, leading to the organization's eventual failure (McGee & Crowley-Koch, 2021). However, in the public context, the people who utilize the justice services are not the ones who ultimately provide the consequences for the maintenance of the organization, nor do they have alternatives that produce the same services (meaning there is little or no competition). As pointed out by Amorim et al. (2022), this control exercised by the population likely comes from other organizations and groups such as the media, human rights groups, and universities, which pressure certain public service sectors to guarantee adequate and efficient services. This is a gap in the application of these organizational models of intervention when applied to public organizations; it also suggests that there are other cultural consequences selecting IBCs and their aggregate products, although perhaps not easily identifiable as in the case of private organizations.

Finally, a clear distinction must be made between individual feedback in Organizational Behavior Management (OBM) and feedback for systems analysis. Feedback in OBM can be understood as a tool to inform someone about their performance in the work environment (operant behavior), altering the probability for desirable behavior to occur (Daniels & Bailey, 2014). In this sense, feedback normally refers to a verbal consequence, which reinforces behaviors that are interesting to the organization and/or provides punitive consequences that reduce undesirable behaviors in the work environment. At the level of cultural selection, feedback from the receiving system must be understood as the cultural consequences that maintain certain IBCs and the corresponding aggregate product(s) in an organization. In other words, even if the organization has adopted measures to collect feedback about its services (e.g., collecting verbal reports, in the case analyzed here), these measures cannot be considered feedback unless they effectively cause changes to the organization's internal processes. This suggests that other consequences (e.g., CNJ evaluations) should play the role of external feedback.

## Processing System

An analysis of the processing system aims to understand how organizations transform resources into valuable products/services for clients and stakeholders (McGee & Crowley-Koch, 2021). Clarifying an organization's processes ensures the efficient use of resources to generate products. In public management, it is crucial to ensure that the organization's interests are aligned with those of the public service, as they use public funds for their maintenance.

The processing system for a RJ organization follows recommendations presented by the public policy normative documents. Resolution No. 225 (2016) provides a flowchart to guide RJ procedures in judicialized cases: once sent to the RJ organization, a facilitator is selected to guide the practice and, once in contact with the victim and offender, explains about RJ practices. They seek to map the damage caused by the conflict and the victim's needs. All interested parties (victim, offender, community, and/or representatives of entities) subsequently come together in an attempt to offer a solution to the needs of the parts involved (Salmaso, 2016). In the end, the agreement phase involves signing a form containing a brief summary of the session, including an action plan for the RJ practice. After 3 to 6 months, the parties involved in the agreement meet to evaluate whether the agreed terms were fulfilled. If the obligations were not met, the case may revert to traditional justice. (Salmaso, 2016).

As for the data provided by the interview, the organization analyzed has an internal division consisting of two sectors. The administrative sector comprises one coordinator, one secretary, and a judicial assistant. Their main function is to manage the processes promoting RJ practices and facilitator training. The application sector is divided into two groups of facilitators, and each group is composed of four people. Each group receives cases transferred by judges who have identified the need for restorative justice practices, and they deal with civil and criminal cases, respectively.

### Processing System Feedback

Feedback from the processing system comprises the organization's internal control measures (McGee & Crowley-Koch, 2021). Good feedback measures from the processing system involve evaluating (1) what type of information is collected—which variables will be measured; and (2) how this information is measured and used, and by whom (Diener et al., 2009).

Concerning information obtained through document analysis, data related to feedback include recommendations on supervision and discussion of cases, reports, and statistical data; monitoring and evaluation of programs; and maintenance of a database sector, among others (CNJ, 2019a). Through the interviews conducted, it was found that the organization implements measures to control its internal processes. These measures include creating documents with virtual access that contain records of the procedures performed. These documents include photos, reports, frequency lists, and more. In addition, the organization holds monthly meetings to address any difficulties and to align agendas based on employee reports. These reports may include administrative or managerial demands, as well as feedback related to the facilitator's practice and experience. Restorative practices are quantified and documented by the facilitators in an Excel spreadsheet. This spreadsheet contains detailed descriptions of all the activities carried out. The primary purpose of this information is to inform the judicial unit about the activities completed so that they can be included in the institution's final report.

It is evident from both the normative documents and the data obtained by BSAQ that there is limited emphasis on quantifying information about the organization's functioning, and the type of metrics used to measure its activities are insufficient.

The description provided in documents such as the Excel spreadsheet does not consider the organization's main aggregate products (i.e., RJ practices and facilitator training), which are essential for efficient internal control and informing the organization about its processes. This situation may be due to the generality of the prescription in law documents regarding monitoring of activities, which allows each organization to determine arbitrary criteria for evaluation.

At this point, two analyses can be pointed out concerning this type of internal feedback. Most of the information was gathered through interviews, suggesting that general recommendations could result in arbitrary measures, or even discourage public organizations from implementing internal control measures. This pertains to the second point, which highlights that the organization's current internal measures are significantly influenced by the requirements of the justice unit for the final evaluation of its subsystem's activities. In essence, the organization chooses which data about internal processes are pertinent to gather based on what is necessary for the final report of its activities. Although the organization responds to environmental pressures, it fails to align with its restorative mission (e.g., whether the RJ practices are being done in a way that offers alternative solutions to conflicts, whether agreements are effectively fulfilled, and if other conflicts are avoided) and with facilitator training (e.g., if the facilitators meet the demands of their environments, if they conduct restorative practices appropriately).

## Resources

Resources (or inputs) are crucial to achieving the organization's mission with the quality required to produce adequate cultural consequences (McGee & Crowley-Koch, 2021). Official documents highlight crucial resources for an RJ organization. These include (1) an adequate and secure physical space; and (2) personnel with comprehensive and high-quality training in restorative justice. The minimum personnel structure comprises a judge and two technical advisors, all trained in RJ practices, along with a judicial assistant and an intern (Resolução No. 225, 2016, Resolução No. 23, 2018).

The RJ public policy planning also encompasses recommendations that can be seen as resources, such as (1) incentives (from the CNJ) for courts to financially support RJ organizations; (2) incentives (from the CNJ) of mechanisms permitting the reversion of funds from specific sources to these organizations; and (3) the promotion of collaborative initiatives with other projects and offering diverse funding options for these organizations (CNJ, 2019a).

Within the public policy planning and Resolution No. 225 (2016), terms like "incentive" are used to depict CNJ actions directed at the courts, aimed at streamlining the adoption of RJ programs and promoting adherence to essential parameters. The precise nature and form of these "incentives" remain ambiguous based on official documents; nevertheless, they appear to be part of a cultural-organizational milieu (i.e., a set of antecedent factors that cause or allow certain interlockings of behavior and some aggregate products; Housmanfar et al., 2010).

The cultural-organizational milieu allows us to observe an interactive relationship between resources, cultural practices, social and economic variables, and the



organization itself. For example, in a restorative practice, resources, cultural practices, and infrastructural variables influence its implementation. This may include the availability of facilitators and/or equipment (e.g., computers, paper), as well as established organizational practices and norms (e.g., desirable behavior patterns of facilitators in an RJ practice). All these factors are part of an environment that allows the best practices to be carried out.

The absence of clearly defined and measurable criteria for monitoring activities results in discrepancies in the information collected by each court unit, hindering the ability to compare and evaluate the outcomes of the public policy (CNJ, 2019b). In the case of the organization examined here, initiatives such as holding monthly meetings and recording data in an Excel spreadsheet represent attempts to document relevant information about internal processes. However, these tools do not directly assess the aggregate product produced by the organization nor how well they align with external demands. In other words, the chosen units of measurement for evaluating the processing system were not designed for "quality control" but rather to generate information for the final reports submitted to the judiciary unit. Moreover, within the context of the RJ public policy, which extends to the public sector at large, it would be beneficial for all RJ initiatives to incorporate a dedicated sector for data analysis. This would ensure control over information production, verifying the effectiveness of program implementations, and identifying data that could contribute to organizational success.

The survey conducted by the National Council of Justice (CNJ, 2019b) on RJ programs uncovered that 77.3% of courts have incorporated some form of monitoring and evaluation for their initiatives in restorative practices. However, many of these courts use different types of information to collect data, such as the degree of satisfaction with the restorative experience, the degree of satisfaction with the service provided, the number of cases handled, and resignification, among other factors. It is important to highlight that among all the items included in the evaluation survey one of the most relevant to providing information to the organization about the scope of its mission would be the number of agreements fulfilled. Nevertheless, this happens in only 27.2% of courts (CNJ, 2019b). The preference for such data stems from the challenges associated with quantifying other elements inherent in the restorative process such as the transformation of user's conflict experiences and the restoration of relationships. Furthermore, this approach considers behavior analytic contributions to the discussion of verbal behavior as a reliable measure (cf. Barros, 2003; Moore, 2017). Also, agreements can be made in restorative practices; yet if there is no follow-up (which happens in the context presented here), there is no way to ensure whether they were duly fulfilled.

According to the CNJ mapping, the survey also inquired about the existence of a routine for meetings dedicated to case studies and self-evaluation within the courts. In this aspect, 70.5% of the courts indicated having such a routine. However, there is a lack of specific information regarding systematic data collection or any indications as to how this data might be utilized to influence organizational practices. As mentioned earlier, for information to be genuinely considered a feedback measure, whether internal or external, these data must be used by the organization to adapt or sustain internal processes. This poses a challenge because, despite being desirable that public organizations adopt measurement systems, there is a potential risk that these measures do not effectively serve the society that receives these products,

leading to poor use of public funds. An alternative to this scenario is for sectors such as the CNJ or the judiciary units to (1) establish contingencies capable of implementing feedback measures; and (2) operationalize variables that are related to the organization's aggregate products. Those practices are probably useful in other contexts of nonprofit and public organizations, and further research may help in producing new strategies for implementing them.

As mentioned earlier, these discrepancies between the prescribed policy and the "real world" data show that other cultural consequences are acting as selectors for IBCs related to the processes within the organization. In other words, there may be a lack of selective pressure from other systems (such as the macrosystem presented) to ensure good measurement techniques. Organizations of this nature must exert control over these analyses and, in association with other sectors, plan more adequate and efficient ways of measuring the aggregate product produced, aligned with the organization's mission.

Other BSA studies also proposed recommendations related to the data systematization process (e.g., Amorim et al., 2022; Cran et al., 2023). These data suggest that private organizations for which competition for resources or customers and cultural consequences are directly linked to profit from the delivery of products/services tend to be more sensitive to the implementation of feedback as part of their survival strategy. In contrast, for public organizations (and other nonprofit entities) that operate in noncompetitive environments and that are not subject to the same revenue-related fluctuations, practices that prioritize more accurate internal control are less likely to be selected. Table 1 depicts a summary of the results provided in this section.

**Table 1** Overall Results of Each Category Analyzed (Diener et al., 2009; Malott, 2003)

Category	Overall Results
Environment	The Brazilian judiciary system and issues related to how conflicts are addressed The Brazilian judiciary reform and the adoption of self-composed methods in response to pressure from international organizations (e.g., UN).
Mission	"Promote the use of restorative practices for solving legal and community conflicts and train facilitators in Restorative Justice principles, to restore interpersonal relationships and promote speed in justice services, in a way that meets the interests of the population, the regulations of the National Council of Justice, and following the budget allocations foreseen by the Court of Justice". Suggested by the authors.
Products and Services	Restorative practices Training RJ facilitators
Receiving System	Population assisted by the justice services Community members assisted by institutional programs National Council of Justice (CNJ) as a stakeholder
Receiving System Feedback	The CNJ Quality Award "Recognition" related to other justice sectors
Processing System	Division into administrative and application sectors
Processing System Feedback	No systematic data
Resources	"Incentives" provided by CNJ to resources related to financing

## Final Considerations

The objective of this research was to analyze the organizational practices of a RJ public organization associated with a Brazilian judiciary unit. In addition, it aimed to produce recommendations that could benefit the organization. To this end, concepts from CBS were used (e.g., Cihon & Mattaini, 2020; Glenn et al., 2016), especially from the perspective of BSA (e.g., Amorim et al., 2022; Cran et al., 2023; Diener et al., 2009; Malott, 2003; McGee & Crowley-Koch, 2021). A BSA approach allows one to evaluate the relationship between the organization, its environment, and related systems, seeking adaptation to the inherent process of change. In this article, we present the work such that it may help researchers and practitioners apply these concepts to analyze nonprofit organizations and propose suggestions that may help them achieve their missions. In addition, we highlight that these practices may be useful to improve the results and impacts of an organization targeting an important social issue—in this case, solving legal conflicts through restorative justice practices.

The results associated with this study revealed elements that have not yet been effectively implemented when considering the prescriptions of public policy and what the BSA literature provides. Such elements include feedback from the receiving system and processing system, especially given that there are no databases or records of the activities provided and the data currently generated by the organization are not intended to inform them about their organizational practices. In addition, even the public policy prescription presents vague and generalist descriptions, which makes it unlikely that RJ organizations will establish good parameters for the data that are already collected. Furthermore, both the CNJ and the direct recipients of the service also provide little feedback on the satisfaction and suitability of restorative practices for the context of this population.

The data found here are in line with what was described by Amorim et al. (2022), considering the absence of clear measurement of a public organization's products. Both analyses found that practices are more often evaluated in broad, generalist, or even mentalistic terms (for example, if people feel satisfied). The description, from a behavior analytic standpoint, is verbal behavior that must be evaluated considering that there are rarely alternatives for the service (e.g., competition) and that people accessing the services are often in a vulnerable or fragile state. Thus, focusing more on the measurement of the product, instead of the verbal behavior of users, might be more helpful to evaluate if the organization is fulfilling its mission. New research must advance the description of achievable strategies to implement such measurement practices in nonprofit organizations.

In addition, data obtained in this article are aligned with other behavior analytic studies on RJ. Analyzing RJ organizations in an applied manner addresses the gaps raised by Santos (2014) and Vaccari (2017). Likewise, other gaps could be addressed by exploring the process and task levels, given that they would enable the operationalized description of the procedures involved in application models such as the restorative circle, or related to the operationalization of measures collected at the end of restorative practices.

Some limitations were also observed in this study, one of which was the application of the TPS at only one level of analysis. The methodological choice in this study was to collect data from the BSEM (Malott, 2003) in descending order (i.e., from the most complex to the least complex level), according to the time available to carry out this task. The allotted time constrained the ability to progress to other levels of analysis, such as the process and task levels. Expanding the analysis to the process level would enable a more detailed description of the organization's main procedures. This is particularly important to check for possible points of divergence in the needs or quality criteria expected in the different activities; redundancies in activities that may produce rework; difficulties or obstacles that hinder the speed of processes; or even important differences in work overload within a sector, team, or person. A detailed analysis at the process level could be addressed in future research.

Like the process level, analysis at the task level can be produced in future studies, and might focus on identifying activities that comprise the functions of employees, the products arising from the work of each, and the knowledge and skills necessary to carry out activities satisfactorily (McGee & Crowley-Koch, 2021; Rummeler & Brache, 2013). Furthermore, a task level analysis will allow the functions to be aligned with what was identified at the organization and process levels.

A second limitation observed concerns the adaptation of tools such as the TPS and Malott's (2003) BSEM to the public sphere. As in Amorim et al. (2022), an adaptation was made to identify the participation of stakeholders in the feedback processes and the allocation of resources for the organization (seen in the dashed line in Fig. 1). This change allowed the relationships to be traced between the effective receiving system (e.g., the one that provides cultural consequences for the organization) and the organization's processing system. Another limitation associated with what was presented previously is the functional analysis of terms to categorize some groups as part of the receiving system. In other words, when conducting a functional analysis of systems that could dispose cultural consequences to the organization, derived from interview data and document analysis, it became evident that the CNJ would assume this role. Nevertheless, for the purposes of this study, a decision was made to categorize both the direct recipients of the service and the CNJ (recognized as a stakeholder) within the receiving system. This grouping aligns with Malott's (2003) model and the BSA literature (Diener et al., 2009; McGee & Crowley-Koch, 2021). Thus, a noticeable gap in the description and categorization of the axes of the receiving system, as well as feedback from the receiving system, becomes apparent when dealing with organizations that do not operate within the private context.

The results from this research support the use of CBS and BSA concerning culturo-organizational problems in both private and public contexts. In the latter, we highlight that groups that could function as stakeholders for such organizations (e.g., regulatory bodies, media, human rights groups) and can more easily trace the mechanisms of selection of organizational practices, which, in turn, can enable better use of public funds and the mitigation of social problems. Also, adaptations of tools like TPS and the identification of patterns in the challenges faced by nonprofit institutions, can facilitate the work of culturo-behavior scientists both from a theoretical and applied perspective.

Culturo-behavior scientists may bring an interesting perspective when addressing both individual behavior and organizational practices. With the training for operational descriptions and focusing on selection processes, the analysis presented here may be helpful in suggesting possible interventions that may contribute to achieving the organization's mission. This is actualized by helping the leader's decision processes in and guiding the organization's management, including training, assessing performance, and so on (Borba et al., 2017; Houmanfar & Mattaini, 2016; Ramos et al., 2016). Related to this, behavior analysts may help develop behavioral measurements for public policies in situations like the one described here where the organization's "product" is change in the behavior of people involved.

Finally, the research here is an example of the challenges that still need to be addressed by CBS researchers and practitioners. As an expanding field, scientists may engage in new topics yet to be explored in behavior analysis. Although this article approached a RJ organization, other public and nonprofit organizations may offer important insights in the analysis of cultural and organizational practices. This may be achieved through research, internships, and practicums done in graduate training programs and teaching laboratories (cf. Cihon et al., 2020; Cihon et al., 2021), but also as volunteers, consultants, or other forms of partnerships.

## Glossary of Acronyms

AP	Aggregate Product
BSA	Behavioral Systems Analysis
BSAQ	Behavioral Systems Analysis Questionnaire
BSEM	Behavioral Systems Engineering Model
CBS	Culturo-Behavioral Science
CNJ	Conselho Nacional de Justiça (National Council of Justice)
IBC	Interlocking Behavioral Contingencies
RJ	Restorative Justice
TPS	Total Performance System

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**Data Availability** The data that support the findings of this study were collected from literature review and interviews with public workers in an organization. The data are available from the authors upon reasonable request.

## Declarations

**Ethical Approval** This project was submitted and approved by the Ethical Committee NMT-UFPA (CAAE: 67248923.8.0000.5172). All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed consent** Not applicable.

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## References

- de Almeida, J. A. T., Valderlon, Y., & Tourinho, E. Z. (2020). Autocontrole cultural: Efeitos da interação verbal sobre a seleção de culturantes [Cultural self-control: Effects of verbal interaction on the selection of culturants]. *Acta Comportamental*, 28(2), 151–168. <https://www.revistas.unam.mx/index.php/acom/article/view/75962>.
- Amorim, V. C. (2022). *Contribuições da Ciência Culturo-Comportamental para a análise de redes de atendimento às mulheres em situação de violência* [Contributions of Culturo-Behavioral Science to the analysis of networks for assistance to women in situations of violence] [Doctoral dissertation, Universidade Federal do Pará, Brazil]. Retrieved May 05, 2023 from <https://shorturl.at/VwPBf>
- Amorim, V. C., Tourinho, E. Z., & Cihon, T. M. (2022). Brazilian public policies for assistance to women in situations of violence: Contributions from culturo-behavioral science. *Behavior & Social Issues*, 31(1), 23–53. <https://doi.org/10.1007/s42822-022-00095-1>
- Barros, R. D. S. (2003). Uma introdução ao comportamento verbal [Introduction to verbal behavior]. *Revista Brasileira de Terapia Comportamental e Cognitiva*, 5(1), 73–82.
- Borba, A. (2007). *Uma discussão dos usos do termo eventos privados na Análise do Comportamento à luz de proposições do pragmatismo* [A discussion of the uses of the term “private events” in behavior analysis in light of pragmatism propositions]. [Master’s thesis, Universidade Federal do Pará, Brazil]. Repositório Institucional da UFPA. <https://repositorio.ufpa.br/jspui/handle/2011/1901>
- Borba, A. (2024). Pesquisas interpretativas [Interpretative research]. In C. E. Lopes & C. Laurenti (Eds.), *Pesquisas teóricas em análise do comportamento* [Theoretical research in behavior analysis] (pp. 79–97). Instituto Par.
- Borba, A., Ramos, C. C., & Costa, T. D. (2017). O surgimento da Análise do Comportamento Aplicada às organizações [The emergence of Organizational Behavior Management]. In D. de Oliveira Vilas-Boas, F. Cassas, & H. L. Gusso (Eds.), *Comportamento em foco Vol 5: Análise do comportamento nas organizações* [Behavior in focus Vol. 5: Organizational behavior management] (pp. 13–27). Associação Brasileira de Psicologia e Medicina Comportamental.
- Brethower, D. M. (1972). *Behavioral analysis in business and industry: A total performance system*. Behaviordelia.
- Brethower, D., & Dams, P. (1999). Systems thinking (and systems doing). *Performance Improvement*, 38(1), 37–50.
- Carrara, K., & Zilio, D. (2015). Análise comportamental da cultura: Contingência ou metacontingência como unidade de análise? [Behavioral analysis of culture: Contingency or metacontingency as the unit of analysis?]. *Revista Brasileira de Análise do Comportamento*, 11(2), 135–146. <https://doi.org/10.18542/rebac.v11i2.1944>
- de Carvalho, L. C., Couto, K. C., Gois, N. D. S., Sandaker, I., & Todorov, J. C. (2017). Evaluating effects of cultural consequences on the variability of interlocking behavioral contingencies and their aggregate products. *European Journal of Behavior Analysis*, 18(1), 84–98.
- Cihon, T. M., & Mattaini, M. (2020). History and progress in cultural and community science. In T. M. Cihon & M. A. Mattaini (Eds.), *Behavior science perspectives on culture and community* (pp. 1–21). Springer. [https://doi.org/10.1007/978-3-030-45421-0\\_1](https://doi.org/10.1007/978-3-030-45421-0_1)
- Cihon, T. M., Becker, A., Ortu, D., & Glenn, S. S. (2020). Multiple perspectives on establishing a research lab in culturo-behavior science. In T. M. Cihon & M. A. Mattaini (Eds.), *Behavior science perspectives on culture and community* (pp. 93–118). Springer. [https://doi.org/10.1007/978-3-030-45421-0\\_1](https://doi.org/10.1007/978-3-030-45421-0_1)

- Cihon, T. M., Borba, A., Benvenuti, M., & Sandaker, I. (2021). Research and training in culturo-behavior Science. *Behavior & Social Issues*, 30, 237–275. <https://doi.org/10.1007/s42822-021-00076-w>
- Conselho Nacional de Justiça (CNJ). (2015). *Estratégia Judiciário 2020* [Judiciary Strategy 2020]. Retrieved May 05, 2023 from <https://www.cnj.jus.br/wp-content/uploads/2015/05/7694a9118fdabdc1d16782c145bf4785.pdf>
- Conselho Nacional de Justiça (CNJ) (2019a). *Planejamento da Política Pública Nacional de Justiça Restaurativa* [Planning for the national public policy on restorative justice]. Retrieved May 05, 2023 from <https://www.cnj.jus.br/programas-e-acoes/justica-restaurativa/planejamento-da-politica-publica-nacional-de-justica-restaurativa/>
- Conselho Nacional de Justiça (CNJ). (2019b). *Mapeamento dos programas de Justiça Restaurativa* [Mapping of restorative justice programs]. Retrieved May 05, 2023 from <https://www.cnj.jus.br/wp-content/uploads/conteudo/arquivo/2019/06/8e6cf55c06c5593974bfb8803a8697f3.pdf>
- Cran, S., Cihon, T. M., Borba, A., Kazaoka, K., & Smith, M. (2023). A pilot study exploring practices that support the longevity of community gardens supported by religious organizations. *Behavior & Social Issues*, 32, 51–87. <https://doi.org/10.1007/s42822-023-00124-7>
- Cruz, F. B. (Coord.). (2016). *Justiça restaurativa: Horizontes a partir da Resolução CNJ 225* [Restorative justice: Horizons from CNJ Resolution 225]. Repositório Institucional do CNJ. Retrieved May 05, 2023 from <https://bibliotecadigital.cnj.jus.br/xmlui/handle/123456789/347>
- Daniels, A. C., & Bailey, J. E. (2014). *Performance management: Changing behavior that drives organizational effectiveness*. Performance Management Publications.
- Diener, L. H., McGee, H., & Miguel, C. F. (2009). An integrated approach for conducting a behavioral systems analysis. *Journal of Organizational Behavior Management*, 29(2), 108–135. <https://doi.org/10.1080/01608060902874534>
- Emenda Constitucional No. 45. (2004). Altera dispositivos dos arts. 5º, 36, 52, 92, 93, 95, 98, 99, 102, 103, 104, 105, 107, 109, 111, 112, 114, 115, 125, 126, 127, 128, 129, 134 e 168 da Constituição Federal, e acrescenta os arts. 103-A, 103B, 111-A e 130-A, e dá outras providências [Amends provisions of articles 5, 36, 52, 92, 93, 95, 98, 99, 102, 103, 104, 105, 107, 109, 111, 112, 114, 115, 125, 126, 127, 128, 129, 134, and 168 of the Federal Constitution, and adds articles 103-A, 103B, 111-A, and 130-A, and provides for other measures]. *Diário Oficial da União*. Retrieved August 15, 2023 from [https://www.planalto.gov.br/ccivil\\_03/constituicao/emendas/emc/emc45.htm](https://www.planalto.gov.br/ccivil_03/constituicao/emendas/emc/emc45.htm)
- Gilbert, T. F. (1978). Human competence—Engineering worthy performance. *NSPI Journal*, 17, 19–27. <https://doi.org/10.1002/pfi.4180170915>
- Glenn, S. S. (1986). Metacontingencies in *Walden Two*. *Behavior Analysis & Social Action*, 5(1–2), 2–8. <https://doi.org/10.1007/bf03406059>
- Glenn, S. S., & Malott, M. E. (2004). Complexity and selection: Implications for organizational change. *Behavior & Social issues*, 13, 89–106. <https://doi.org/10.5210/bsi.v13i2.378>
- Glenn, S. S., Malott, M. E., Andery, M. A. P. A., Benvenuti, M., Houmanfar, R. A., Sandaker, I., Todorov, J. C., Tourinho, E. Z., & Vasconcelos, L. A. (2016). Toward consistent terminology in a behaviorist approach to cultural analysis. *Behavior & Social Issues*, 25, 11–27. <https://doi.org/10.5210/bsi.v25i0.6634>
- Gusso, H. L., & De Luca, G. G. (2017). Organizações como sistemas comportamentais [Organizations as behavioral systems: Considerations for defining the field]. In D. L. O. Vilas Boas, F. Cassas, & H. L. Gusso (Eds.), *Comportamento em foco Vol 5: Análise do comportamento nas organizações [Behavior in focus Vol. 5: Organizational behavior management]* (pp. 28–40). Associação Brasileira de Psicologia e Medicina Comportamental.
- Houmanfar, R., & Mattaini, M. A. (2016). Leadership and cultural change: Implications for behavior analysis. *The Behavior Analyst*, 39(1), 41–46. <https://doi.org/10.1007/s40614-016-0064-7>
- Houmanfar, R., Rodrigues, N. J., & Ward, T. A. (2010). Emergence and metacontingency: Points of contact and departure. *Behavior & Social Issues*, 19, 78–103. <https://doi.org/10.5210/bsi.v19i0.3065>
- Lima, D. M., Fraga, V. F., & Oliveira, F. B. (2016). O paradoxo da reforma do judiciário: Embates entre a nova gestão pública e a cultura organizacional do jeitinho [The paradox of judicial reform: Clashes between the new public management and the organizational culture of 'jeitinho']. *Revista de Administração Pública*, 50, 893–912.
- Malott, M. E. (2003). *Paradox of organizational change: Engineering organizations with behavioral systems analysis*. Context Press.
- Malott, M. E., & Glenn, S. S. (2006). Targets of intervention in cultural and behavioral change. *Behavior & Social Issues*, 15(1), 31–57. <https://doi.org/10.5210/bsi.v15i1.344>

- Marcucci, O. (2021). Why restorative justice works in schools: An investigation into the interactional dynamics of restorative circles. *Learning, Culture & Social Interaction*, 31(1), 100561. <https://doi.org/10.1016/j.lcsi.2021.100561>
- McGee, H. M., & Crowley-Koch, B. J. (2021). Behavioral systems analysis in organizations. In R. A. Houmanfar, M. Fry, & M. P. Alavosius (Eds.), *Applied behavior science in organizations: Consilience of historical and emerging trends in Organizational Behavior Management* (pp. 99–127). Routledge.
- Moore, J. (2017). Uma comparação de práticas explanatórias do mentalismo e da análise do comportamento [A comparison of explanatory practices between mentalism and behavior analysis]. *Revista Brasileira de Análise do Comportamento*, 13(2). <https://doi.org/10.18542/rebac.v13i2.5909>
- Portaria Presidência No. 82. (2023). Institui o regulamento do Prêmio CNJ de Qualidade, ano 2023 [Establishes the regulation for the CNJ Quality Award, year 2023]. *Diário de Justiça Eletrônico do CNJ*. Retrieved August 15, 2023 from <https://atos.cnj.jus.br/files/original13575022030404642c2cde58e2.pdf>
- Pranis, K. (2011). *Círculos de justiça restaurativa e de construção da paz: guia do facilitador* [Restorative justice and peacemaking circles: Facilitator's guide]. Projeto Justiça para o século 21: Instituinto Práticas Restaurativas. AJURIS. Retrieved August 15, 2023 from <https://www.mpmg.mp.br/data/files/16/17/27/34/65A9C71030F448C7860849A8/Circulos%20de%20Justica%20Restaurativa%20e%20de%20construcao%20da%20paz.pdf>
- Ramos, C. C., Costa, T. D., Borba, A., & da Barros, R. S. (2016). Uma abordagem comportamental para a descrição de competências em uma instituição pública federal [A behavioral approach to description of competences in a federal public institution]. *Perspectivas em Análise do Comportamento*, 7(1), 133–146. <https://doi.org/10.18761/pac.2015.029>
- Redmon, W. K. & Mason, M. A. (2001). Organizational culture and behavioral systems analysis. In C. M. Johnson, W. K. Redmon & T. C. Mawhinney (Eds.), *Handbook of organizational performance: behavior analysis and management* (pp. 437–456). The Haworth Press.
- Resolução No. 225. (2016). Dispõe sobre a Política Nacional de Justiça Restaurativa no âmbito do Poder Judiciário e dá outras providências [Provides for the National Policy on Restorative Justice within the scope of the Judiciary and establishes other provisions]. *Diário de Justiça Eletrônico do CNJ*. Retrieved May 02, 2023 from [https://atos.cnj.jus.br/files/resolucao\\_225\\_31052016\\_02062016161414.pdf](https://atos.cnj.jus.br/files/resolucao_225_31052016_02062016161414.pdf)
- Resolução No. 23. (2018). Dispõe sobre a estrutura e o funcionamento do Núcleo Permanente de Métodos Consensuais de Solução de Conflitos (NUPEMEC); revoga a Resolução no. 15/2016, de 1º de junho de 2016, e dá outras providências [Provides for the structure and operation of the Permanent Center for Consensual Conflict Resolution Methods (NUPEMEC); repeals Resolution No. 15/2016, dated June 1, 2016, and establishes other provisions]. *Diário da Justiça do Estado do Pará*. Retrieved May 02, 2023 from <https://www.tjpa.jus.br/CMSPortal/VisualizarArquivo?IdArquivo=978161>
- Resolução No. 325. (2020). Dispõe sobre a Estratégia Nacional do Poder Judiciário 2021–2026 e dá outras providências [Provides for the National Strategy of the Judiciary 2021–2026 and establishes other provisions]. *Diário de Justiça Eletrônico do CNJ*. Retrieved May 02, 2023 from <https://atos.cnj.jus.br/files/compilado180242202060962a235c29d678.pdf>
- Rummler, G. A., & Brache, A. P. (2013). *Improving performance: How to manage the white space on the organization chart* (3rd ed.). Jossey-Bass.
- Salmaso, M. N. (2016). Uma mudança de paradigma e o ideal voltado à construção de uma cultura de paz [A paradigm shift and the ideal aimed at building a culture of peace]. In F. Cruz (Ed.), *Justiça restaurativa: Horizontes a partir da Resolução CNJ 225* [Restorative Justice: Horizons from CNJ Resolution 225] (pp. 18–64). Conselho Nacional de Justiça.
- Santos, M. T. (2014). *Programa de Justiça restaurativa aplicado na escola* [Restorative Justice program applied in a school]. [Master's thesis, Universidade Tuiuti do Paraná, Brazil]. Biblioteca Digital de Teses e Dissertações da UTP. Retrieved May 05, 2023 from <https://tede.utp.br/jspui/handle/tede/1333>
- Secco, M., & Lima, E. P. (2018). Justiça restaurativa: Problemas e perspectivas [Restorative justice: Problems and perspectives]. *Revista Direito e Práxis*, 9, 443–460. <https://doi.org/10.1590/2179-8966/2018/32715>
- Silva, E. M. (2005). O estado democrático de direito [Democratic state of law]. *Revista de informação legislativa*, 42(167), 213–229. <http://www2.senado.leg.br/bdsf/handle/id/794>
- Silva, L. F., & Gallo, A. E. (2016). Uma proposta de diálogo entre justiça restaurativa e a Análise do Comportamento [A proposal for dialogue between restorative justice and Behavior Analysis].



- Publicatio UEPG Applied Social Sciences*, 24(3), 333–343. <https://doi.org/10.5212/PublicatioCi.Soc.v.24i3.0008>
- Silva Neto, N. M., & Santos, A. O. (2018). Justiça restaurativa e conflitos sociais envolvendo comunidades tradicionais na amazônia brasileira: Um estudo de caso no município de Santarém [Restorative justice and social conflicts involving traditional communities in the brazilian amazon: A case study in the municipality of Santarém, Pará]. *Pará. Revista Ciências da Sociedade*, 2(3), 238–259. <https://doi.org/10.30810/rcs.v2i3.629>
- Skinner, B. F. (1981). Selection by consequences. *Science*, 213, 501–504. <https://doi.org/10.1126/science.7244649>
- Skinner, B. F. (1987). Why we are not acting to save the world? In B. F. Skinner (Ed.), *Upon further reflection* (pp. 1–14). Prentice Hall PTR.
- Tourinho, E. Z. (2007). Conceitos científicos e “eventos privados” como resposta verbal [Scientific concepts and “private events” as verbal responses]. *Interação Em Psicologia*, 11(1), 1–9. <https://doi.org/10.5380/psi.v11i1.6491>
- Tourinho, E. Z. (2013). Cultural consequences and interlocking behavioral contingencies: Selection at the cultural level. *Behavior & Philosophy*, 41, 60–69.
- Vaccari, C. (2017). *Análise das consequências da utilização de Justiça Restaurativa: O caso do programa justiça para o século 21* [Analysis of the consequences of using Restorative Justice: The case of the justice for the 21st century program]. [Master’s thesis, Universidade Federal do Paraná, Brazil]. Biblioteca Digital de Teses e Dissertações da UFPR. Retrieved May 05, 2023 from <https://hdl.handle.net/1884/52564>
- Zehr, H. (2008). *Trocando as lentes: Um novo foco sobre o crime e a justiça* [Changing the lenses: A new focus on crime and justice]. Palas Athena.
- Zehr, H. (2012). *Justiça restaurativa [Restorative justice]*. Palas Athena.
- Zehr, H., MacRae, A., Pranis, K., & Amstutz, L. S. (2015). *The big book of restorative justice: Four classic justice & peacebuilding books in one volume*. Simon & Schuster.

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