

# A Discursive Guide for Mediating Conflicts in Mining Areas

## Guía Discursiva para la Mediación de Conflictos de Intereses en Zonas Mineras

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**Abstract**— A semiotic analysis (of cultural meanings) of the Colombian conflict situation is the point of departure for identifying symbolic elements that can serve as mediators when conflicts of interest exist, particularly between endogenous (living in the mining zone) and exogenous populations (related to the mining zone but not living in it) in Colombian mining areas. Although the Colombian case is the focus of this document, it is possible to deduce from a closer reading that proposed semiotic mediations (discourse) can apply in other Latin American cultural contexts that are afflicted similarly by conflicts arising due to mining activities (explorations, exploitation, transportation, processing, transformation and commercialization). Thus, in the first place, the researches document the lack of discursive guides available to engineers, administrators, or people in charge of mining activities so that they can assertively mediate finding solutions to the conflicts that arise in populations living in mining areas. Secondly, a methodology is proposed for creating the discursive guide. This starts with collecting and tracing idiosyncratic phrases, followed by their analysis and ending with an interpretation of their cultural meanings.

**Key Words**— discourse, mining conflicts, mining zones, semiotic, mining activity.

**Resumen**— Este artículo expone, a partir del análisis semiótico (análisis de significados culturales) de la situación conflictiva colombiana, elementos simbólicos que sirven como mediadores cuando se presentan conflictos de intereses, particularmente entre las poblaciones endógenas (viven en el sitio de actividad minera) y exógenas (relacionadas con la zona minera pero que no habitan el sitio) de zonas mineras colombianas. Aunque se aborda el caso colombiano, es posible deducir después de la lectura del contenido de este documento, que las mediaciones semióticas (discursos) propuestas pueden aplicarse a otros contextos que pertenezcan a la cultura latinoamericana, caracterizados por sufrir situaciones conflictivas similares a las expuestas, en áreas de actividades mineras (exploración, explotación, transporte, procesamiento, transformación y comercialización). Así, se ofrecen en primer lugar, datos relevantes acerca del problema de la inexistencia de guías discursivas que le permitan al ingeniero, administrador, o persona encargada de las actividades mineras, mediar asertivamente en la búsqueda de soluciones ante conflictos de

intereses que surgen entre poblaciones de zonas mineras. En segundo lugar, se plantea la metodología base de para la guía discursiva que inicia con la recolección y rastreo de frases idiosincráticas, para continuar con su análisis y finalizar con la interpretación de los significados culturales analizados.

**Palabras clave:** discurso, conflictos mineros, zonas mineras, semiótica y actividad minera.

### I. INTRODUCTION

According to the Colombian Mining Information System [Sistema de Información Minero Colombiano] (SIMCO)[1], the Mining Energy Planning Unit [Unidad de Planeación Minero Energética] (UPME)[2] and the Colombian Chamber of Mines [3], Colombia possesses great potential in the geological arena that make mining activity and the exploitation of diverse mining products of global economic interest possible. The following **Metals** can be highlighted: silver, platinum, copper concentrate, iron, lead, ferronickel, manganese, zinc, titanium, with a predominance of gold (alluvial and vein deposits) and products associated with gold: quartz, pyrite, trace metals [2], coltan (combination of columbite and tantalite) and uranium[4]. **Non-metallic minerals:** inland salt, sea salt, gravels, sands, clay, limestone, sulphur, talcum, barite, bentonite, basalt, kaolin, feldspar, flourspar, asbestos, magnesite, gypsum, phosphste rock, coral limestone, dolomite, pozzolan, bauxite, blue quartz, silicious stone, lime, ornamental rocks, magnesium silicate; and those associated with emeralds: albite, calcite, pyrophyllite and muscovite. **Energy minerals** [5]: petroleum, (crude and refined in 25th place in global ranking [6]), gas, kerosene, gasoline, diesel, with coal predominating (Colombia is the foremost producer in Latin America and 12<sup>th</sup> globally). **Precious Stones:** amber, ziron, with emeralds predominating [2].

Given this panorama, it is undeniable that conflicts will arise and develop [4] around mining activities that are carried

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out in 26 mining districts of the country [2], just like those present in other place of the world such as Sierra Leone (África), Áncash (Perú) and Kogan (Australia), among many others [7]. It is worth recalling these precedents and similar cases, starting with Sierra Leone (África). Added to the well-known consequences of independence from Great Britain such as racial segregation, dictators, tribal wars and power grabs, especially during the first 10 years after succession on the part of movements such as the *Revolutionary United Front* (RUF), there was the surge of conflict for control of diamond mining. This phenomenon has been analyzed by, among others, Anthony Bebbington and Denise Humphreys [8] or John L Hirsch [9] and made known globally through the movie *Blood Diamonds*, starring Leonardo Di Caprio in 2006. The case of Áncash, Perú has also been made public in documentaries, articles [10] and national and international news such as the SPDA Environmental Update [11] in its 13 August 2012 title story: “Áncash: seven children register high levels of copper in their blood and three adults show high levels of lead”. Lastly, in the case of Kogan, Australia, not only has Aborigine Heritage been damaged, but water sources on colonized land have been highly contaminated by a gas company that perforated coal seams near the town of Dalby [12].

A discursive guide for engineers, administrators, or people in charge of mining activities is presented including the main discursive elements needed to be able to assertively mediate finding solutions to the conflicts that arise in populations living in mining areas. [13] [14]

## II. METHODOLOGY

A qualitative methodology [13] with a phenomenological emphasis [14] was used to develop the proposal of semiotic mediations or symbolic discussions in resolving conflicts between endogenous and exogenous populations in Colombian mining areas. It was divided into four stages [16] as follows: Stage 1. Stating the problem: Intuitive phase and document review phase. Stage 2. Data collection via collecting idiosyncratic phrases. Stage 3. Semiotic Analysis Stage 4. Interpretation of cultural meanings. (See Figure 1).

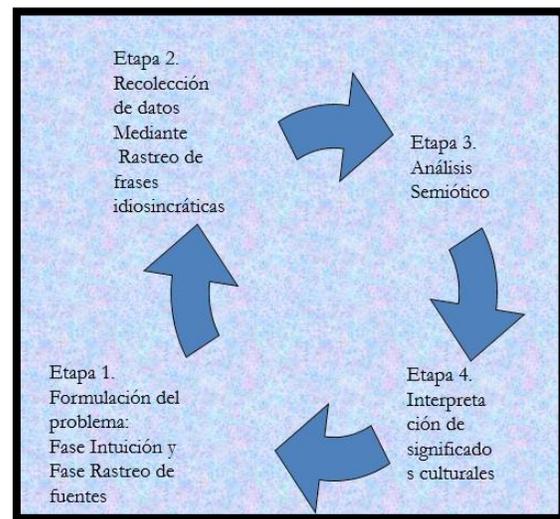


Fig. 1. Methodology Diagram  
Source: Authors.

## III. CONFLICTS BETWEEN ENDOGENOUS AND EXOGENOUS GROUPS

### A. *Intuitive Observation and Listening*

The intuitive abilities of the environmental researcher or engineer who is concerned about the mining issue is put to the test in every case of popular, state, institutional and press opinions for and against mining activity in a country being prospected (viz. exploration, pre-feasibility studies, construction of mines, deep underground or open pit excavation, transportation, transformation, commercialization or closing) [3]. In the case of Colombia, the mining issue is defined by the “Mining Motor” of the National Development Plan (2010-2014), called *Prosperity for all*, of the Juan Manuel Santos government [17]. Thus emerges the concern to find mediating discourses among diverse social actors on the Colombian mining scene. They are characterized as: Endogenous populations or those living in the mining area: mining companies, artisanal miners and the communities of the municipalities in the mining districts [2]; as well as exogenous populations, related to the mining zone but who do not live in it, namely the State, inhabitants of Departments where mining takes place [13].

### B. *Review of reputable sources.*

In the interest of scientific robustness, [13], important information sources on the topic were reviewed. These included: official documents and reports, national and international protests, mining company web sites and testimonies by representatives of social actors on the mining scene such as mining companies, artisanal miners, inhabitants of the mining districts (here understood as the district where the production process is located and a large number of producers are dedicated to mining) [2], the State and inhabitants of the Departments where mining takes place. The ethnographic

experiences of the researchers in the mining district of Segovia, Zaragoza, Vetas and California were also taken into account, and the personality of the people living in the capital of Santander Department, Bucaramanga.

*C. Identification of Idiosyncratic phrases related to mining activity*

**Phrases used by the mining companies in the Vetas and California (Santander-Colombia) as well as Zaragoza (Antioquia-Colombia) mining areas:**

- ...the main goal is to promote responsible and competitive mining.
- ... the aim is for good positioning and a better understanding of formal mining on a grand scale, which is why we relate to State institutions and the Colombian public opinion.
- ...The zone is located in the foothills of the Eastern Cordillera ... with kind and respectable people, full of values and love for their land
- ... international marketer of petroleum and derivatives including thermal coal and coke. Producers and distributors of precious metals. We also market food. In addition, we have a department that specializes in international business where we provide training and advice on these issues.
- ...Mining done well and with long-term benefits
- ... We comply with the law in all of our activities.
- "Mining leads to institutionalization, is sustainable and is one of the great engines of development in Colombia"
- ... a well-capitalized company focused on the exploration and development of gold/copper porphyry projects in Colombia
- Its objective is to optimize production at existing mines and build further shareholder value through the exploration and development of existing projects and additional accretive acquisitions.
- Developing a Multi-Million Ounce Gold-Silver Deposit in Colombia

**Phrases used by the endogenous populations in the Vetas and California (Santander-Colombia) as well as Zaragoza (Antioquia-Colombia) mining areas:**

- In the company they give you everything free of charge, food, accommodation, pots, everything ...
- There's always work to be able to survive
- When I worked at the mine, a lot of prostitution was seen. Girls of 9 years old would proposition one or ask if we were gay. All the women did was to try and get pregnant by a miner so that the company would pay them a subsidy.
- It's tough as a miner for the company because you have to sustain various families
- Everything for my children is paid for because they are the offspring of one of the company's miners so I don't have to carry the load alone (said by women)

- Even though I'm retired from the company, I got myself a young girl and formalized the relationship when I was already old and I will give her my pension
- There are lots of friends who don't go back to school because they earn more in the mine than from studying
- Here the arrival of the international company was very beneficial for us. They fixed the roads so that the trucks could come in, they gave bursaries to study and the young men were trained at the SENA to operate the heavy equipment, they collaborated with the church, they started programs with the women to start micro-enterprises, the clinic was paid for by the company, there was more security because before this was a red zone, and there were programs for the elderly. But now, since everything is closed down, small mines have popped up again and, well, they have to respond to the CDMB (Regional Autonomous Corporation for the Protection of the Bucaramanga Plateau) which asks for lots of things, papers and permits and now they are sick of it.
- Here we are a whole family of miners, grandfathers, fathers and now us, but with the environmentalists we don't know where to turn.
- Soto Norte Miners plan a water countermarch.
- Small miners from Santander march today in Bucaramanga.
- We will be environmentally displaced people by the government and for the protection of the land, let us work.
- According to the president of the California Miners' Union, Freddy Gamboa, the aim of the mobilization is to "defend mining activity that is moving forward in Surata, Vetas and California. We believe that legal and formal mining, when properly regulated, can help protect the moorland from other threatening forces. Our interest is to protect the moorland ecosystem, and above all, look out for our town's tradition and our right to work".

**Phrases used by the exogenous populations in the Colombian cities of Bucaramanga and Medellin:**

- "No more mining companies"
- "We decided to march because we are incensed and feel powerless in the face of those who poorly administer the nation's resources and keep handing them over to national and foreign big money".
- Out with big mining! We defend the water! and We Defend Life!
- "We ask top Government and Departmental government for the immediate suspension of all exploration activities on the Santurbán Moorland".

- The march is to protect the water, especially on the Santurbán Moorland; and to protect mining, above all small mining".
- I'm here to defend the water for Santander. If the moorland is polluted we will have a hydro resource emergency".
- "We have been accompanying this process to protect the Santurbán Moorland since last year because that is where the hydro reserve is that supplies water to the Bucaramanga metropolitan aqueduct and which would be affected by multinational mining companies that want to exploit it".
- "I came to march because I'm a Santanderan who is conscious of the fact that the vital minimum for sustaining life is water. The large mining exploiters want to pollute using chemicals that are harmful to the health of people in Santander, especially in the Metropolitan Area. We have to protect the water in order to guarantee life".
- "What they didn't achieve with blood, they achieved with bribes".
- "No to pollutant mining",
- "For the workers of the vineyard and the warehouse there is no party, just hunger wages",
- To what purpose this exploitation of gold at the cost of water?
- "Not one step back, always ahead (verse of the Santander Hymn), not with all the gold in the world could we buy the true riches represented by pure water that gives us life".
- "100 thousand voices for water"
- "No to the pollution of our hydro resources by mega mining".
- People of Santander marched against the "mining engine"
- "We are denouncing and rejecting the current government policy based on giving a free hand to multinational companies to the detriment of the national mining industry, and in particular the persecution of traditional and artisanal mining in our country", declared Luis Alfredo Muñoz, legal representative of Fesamin.
- "Yes to water, no to gold", "respect for mining towns"
- Drop by drops water drips to nothing".
- "Down, down with the mining side that feeds us cyanide"
- "Protecting water and life. The students of the UIS are present".
- "All in favor of protecting our territory, identity and work in Santurbán"

- Women of Bucaramanga strip to protect the water. The point of this act was to highlight and value the role of women in protecting Mother Earth, indicated Alejandra Quintero.
- The mining engine" is a "false positive" for the interests of the people`

#### Phrases used by the Colombian Government

- In Colombia, the main challenge for the sector is responsible mining given the opportunities opening up in the new mining era. Huge challenges are on the horizon for the authorities, such as greater mandatory requirements with respect to industrial safety, environmental and social impact.
- Despite Colombia's long mining history, modern mining did not arrive here until the last decades of the twentieth century with the developments at Cerro Matoso and Cerrejón.
- Colombia is one of the countries with the highest mining potential in the world.
- The perception that society, and especially the youth, has of mining is a direct result of the messages received from the media.

#### IV. SEMIOTIC ANALYSIS

##### A. Analysis of discursive expressions constructed by endogenous and exogenous populations

For this part of the study, the semiologist Umberto Eco's limits of interpretation [19] and *Interpretation Theory* by Paul Rico and Paul Ricoeur [20] were used as the theoretical basis for the analysis of expressions constructed by these social actors: endogenous and exogenous populations, the companies and the State.

The discourse of the companies is characterized by mention of responsible mining and emphasizing the profitability of legal business supported by state policies and social commitment. Some focus attention on economic and technological development of big mining, while others appeal to nationalism as something attractive and that the public opinion can identify with.

The discourse of the endogenous population is distinguished by agreeing that it is about work and involves negative phenomena like prostitution, child labor, school dropout, exclusion and denigration of the female role, and easy work. It can also be seen that, although none of the testimonies express dissatisfaction with the mining company, the day to day experience is different in each mining district since some defend the presence of the mining company, foreign ones in particular because they cover unmet transportation, education and health needs that are state responsibilities. Another part of the text that stands out relates to viewing small mining as a

second alternative when large mines shut down, and as a cultural legacy. Lastly, the environmental authority is seen as an obstacle to mining work.

The discourse of the exogenous population is defined by a radical negation of mining activities in natural areas that provide resources to the big city. The anti-establishment attitude towards the big mining companies, state mining policy, and the multinationals is also notable. They accentuate the negative environmental impacts with indirect effects on their quality of life, principally with respect to the hydro resource. This discourse associates mining with pollution, corruption, resource theft, territory invasion, loss of autonomy, traditions and work habits. At the same time, women's and students' voices stand out.

State discourse identifies with responsible mining and the tone intensifies in texts about challenges, taking advantage of the opportunities for shared development. Nationalist discourse gains primacy, e.g., the highest mining potential in the world. The negative response to mining in the country is dismissed as misinformation, especially when it comes to the youth.

V. RESULTS

What follows are the interpreted cultural meanings that can serve as guiding principles of a **Discursive Guide for Mediating Conflicts in Mining Areas** in Colombia. They can also be adapted to the cultural realities of other mining areas located within a western cultural milieu.

**Mediating with Scientific Knowledge:** This mediation strategy should be used by the mediator when conflict arises between the profitability interests of the company and resource conservation concerns of the exogenous community. Using eidetic memory, the use of scientific discourse and argumentation is motivated given that it is widely accepted by many kinds of individuals and provides the grounds upon which to come to a consensus based on evidence, facts and proof. (See Figure 2).

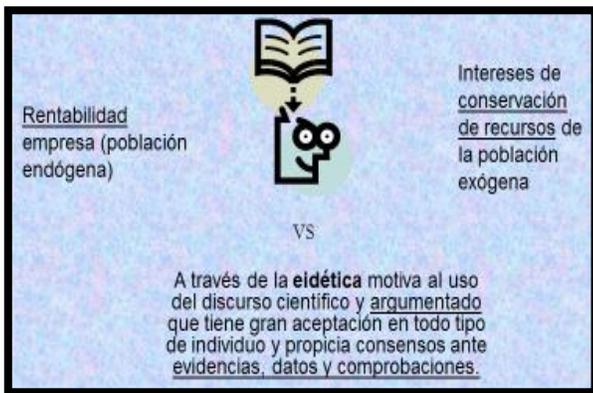


Fig. 2. Mediating with scientific knowledge  
Source: Authors.

**Mediating the mass media:** the mediator must use this tool in all conflict situations arising between the endogenous and exogenous populations. This western attraction to *mass media*

enables subjects to develop their social, communicative and interactive potential thus becoming part of the group and at the same time stand out from it. This enables a human being to identify with, and at the same time differentiate itself from, the species. (See Figure 3).

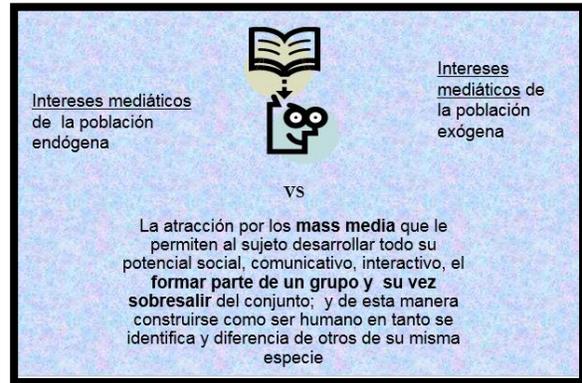


Fig. 3. Mediating the mass media  
Source: Authors.

**Mediating with cultural biodiversity:** Good mediators analyze the conflict context in which they find themselves immersed, and for this reason it is preferable that they are part of the endogenous community. It's also important to be careful to avoid the use of decontextualized expressions for the endogenous and exogenous populations, referring to all pejorative terms related to habits, customs, daily activities, traditions, norms, beliefs and other cultural aspects. In this way a dialectic and reflection process is fomented which allows for creating distance, thinking critically and calming the tempers of the conflicting parties. (See Figure 4).

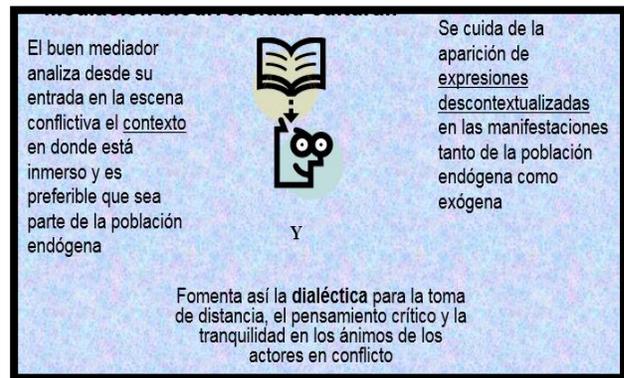


Fig. 4. Mediating with cultural biodiversity  
Source: Authors.

**Mediating with respect to the environment:** The mediator needs to understand the environment not only in ecological terms, but also as the interaction between individuals and the natural environment. Likewise, environmental discourse should be linked with that of sustainable development to the degree that a balance and mutual benefit are possible for the survival of humans, their cultural world and the natural world. (See Figure 5).

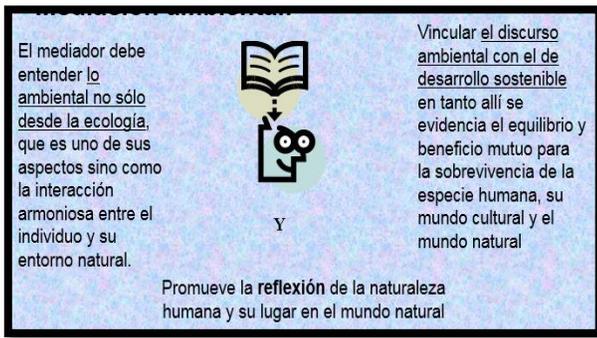


Fig. 5. Mediating with respect to the environment  
Source: Authors.

**Mediating using veracity:** Although this is the most difficult aspect to manage, it is indispensable in order to win the trust of the conflicting parties and makes finding common ground possible. For the common good, lack of respect and lies are prohibited in this discourse. The populations become public entities that are open to discussion. In this sense, the mediator recommends that the company publishes not only its high mining production levels, but also its profit margins, compliance with social contracts and environmental and legal norms, and shows true images of its mines, provides real employee or beneficiary testimonies (not by actors), and consensuses reached with detractors and competitors. At the same time, the exogenous and endogenous populations should take advantage of interconnectedness, social media and communication to continuously express the benefits and advantages of mining activities for mining areas and social development of the big cities, as well as the difficulties and the failures on the part of the State or the companies with respect to guaranteeing quality of life for their inhabitants. Lastly, the State needs to have a real presence in the mining districts in order to ensure governability, that companies meet their commitments, provide quality public service and, of course, respect for the human rights of the inhabitants of mining areas. (See Figure 6).

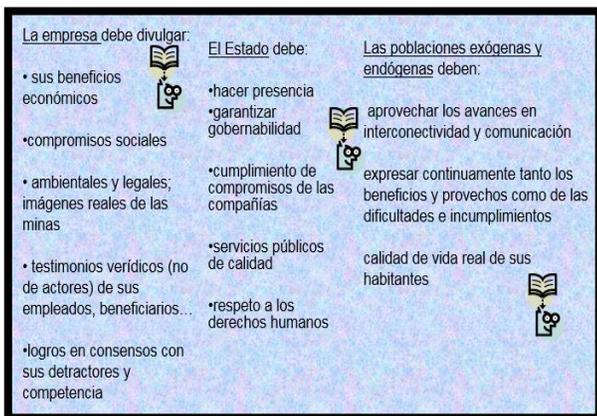


Fig. 6. Mediating with veracity  
Source: Authors.

## VI. CONCLUSIONS

It can be concluded from the proposed methodology for analyzing the characteristic discourses of populations in conflict in mining areas, that it is a workable tool as long as the

mediation takes into account these aspects: scientific knowledge, mass media, cultural biodiversity, the environment and a commitment to veracity.

Mediating with scientific knowledge is useful in economic conflicts. Using mass media as a mediation tool is highly useful in conflict around public recognition.

Mediation that takes cultural biodiversity into consideration is indispensable when different interests are in conflict; in this case in the mining sector.

Environmental mediation enables reflection about the nature of humans and their place in the world.

Mediating using veracity requires much of the mediator as they attempt to bring conflicting actors together in a spirit of respect and trust.

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