



The art and science of community relations: Procedural fairness at Newmont's Waihi Gold operations, New Zealand

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ABSTRACT

Community relations are an integral part of successful and socially acceptable mining operations. Effective interactions between a mining company and a host community tend to foster mutual understanding and trust, leading to higher levels of acceptance of those operations. The Waihi gold mining operations in New Zealand, which consist of an open pit, several underground operations, a processing facility and waste storage facilities, are well known for their close proximity to their host community. In 2011, the company Newmont Waihi Gold announced a potentially controversial extension to their existing underground operations, which for the first time proposed to extend directly beneath homes in residential Waihi. At the time of this announcement, the company had made no consent application nor held permission to extend their operations. The announcement was the first stage in an extensive three year consultation period with the community to negotiate whether and how the extension might proceed. This paper provides a case study of community relations practice that draws on both quantitative and qualitative research methods to examine the drivers of community acceptance of this extension. This includes results of a survey of community members undertaken prior to the announcement of the proposed extension, which identifies why community members regarded the company as a positive member of their community, and how this contributed to their acceptance of the company. These findings are supported by a series of interviews with key stakeholders from both company and community that interrogate the community relations process and how the mine's extension was negotiated after the initial proposal was announced. Based on these findings, a number of initiatives that were jointly developed by the company, community and other stakeholders through a voluntary, facilitated negotiation process within the legal consenting regime are identified. It is also observed that these negotiations ultimately allowed this complex operation to proceed. Our findings highlight how community relations function in practice, how trust in the relationship between company and community is underpinned by procedural fairness in those interactions, and provide examples of how fair processes are negotiated in context.

1. Introduction

It is well understood that the social licence of a mining operation is a reflection of the quality of the relationship a company has with its host community (Thomson and Boutilier, 2011; Lacey and Lamont, 2014; Parsons et al., 2014; Ford and Williams, 2015; Moffat et al., 2015a; Cooney, 2017). Community relations are an integral part of successful mining operations and where these interactions are effective, they tend to foster mutual understanding, trust and support between a company and the host community (Kemp et al., 2006; Holley and Mitcham, 2016). Research demonstrates that where such interactions are perceived to be procedurally fair, the increased trust created in these company-community interactions tends to lead to higher levels of acceptance of mining operations (Moffat and Zhang, 2014). The Waihi

gold mining operations in the North Island of New Zealand encapsulate the central nature of this relationship between a company and a community.

The Waihi gold mining operations are well known for their close proximity to their host community and consist of an open pit, several underground operations, a processing facility and waste storage facilities; some of which are located within the township of Waihi itself (Evans and Kemp, 2011). In 2011, under the ownership of Newmont Waihi Gold (NWG), the company announced a proposed extension to their existing underground operations. This announcement referred to the proposed Correnso mine which, if approved, would see mining take place directly underneath homes in residential Waihi for the first time. The community relations and engagement program along with the negotiations that took place between the company and the community

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following this announcement ultimately led to the successful application for and approval of the Correnso mine. This approval was achieved through community participation in negotiating the consent through a voluntary, facilitated negotiating process within the consenting regime. The Correnso mine was successfully brought into production in 2015 (Maton, 2015), and the mining operations were subsequently purchased by Oceana Gold in October 2015.

This paper documents a case study of the community relations processes that supported the successful approval of the Correnso mine, with a particular focus on the quality of the relationship between the company and community, and the combination of aspects underpinning the relationship quality. Much of the literature pertaining to community relations has been critical, suggesting that such functions are designed primarily to serve corporate and organizational interests (Kapelus, 2002; Szablowski, 2002; Kemp, 2010; Bitektine, 2011; Prno and Slocombe, 2012; Kemp and Owen, 2013). Given this criticism and recognising that mining is often a contested practice, this case study research draws on multiple sources of evidence, both quantitative and qualitative, to closely examine and generate analytical generalisations about the drivers of strong company-community relations in a local context (Denzin and Lincoln, 2005). While the Waihi gold operations are characterised by a number of unique features, such as the history of mining in the town and its location within the township, we argue a number of findings emerge from this case study of community relations that are both generalisable and applicable to other contexts.

The paper is structured as follows. We briefly describe the case study context. This is followed by a review of key literature highlighting the structural elements of company-community relations. We then present a quantitative survey study of community acceptance of NWG and its existing operations prior to the announcement of the extension. These results identify the key elements of the company-community relationship and the drivers of acceptance at that time. We then present a qualitative interview study interrogating the experience of how company and community worked together to negotiate acceptable outcomes. This covers the period immediately following the announcement and the years leading up to the consent application, approval and commencement of the Correnso mine. These results detail the nuance of company-community interactions, and how fairness critically underpinned those interactions during an often challenging period. Finally, the implications of these findings are discussed, highlighting how the art and science of community relations function in practice, and how trust in the relationship between company and community is underpinned by procedural fairness in those interactions.

2. A brief history of gold mining in Waihi

Waihi is located in the Hauraki District on the east coast of the North Island of New Zealand at the base of the Coromandel Peninsula. The town of Waihi has a population of 4527 people (NZ Statistics, 2013) and is located between the neighbouring residential communities of Paeroa, Waihi Beach, Waikino, Karangahake and Katikati (QandA Communications Group, 2006). Waihi is located 63 km north of Tauranga, the major regional port, and approximately 125 km southeast of Auckland, the largest city in New Zealand. The area is characterised by significant environmental assets such as the Karangahake Gorge, which lies between Paeroa to Waihi, and a range of waterways, surfing and recreational beaches, and wetlands (QandA Communications Group, 2006), which make it an important tourist destination (Thames Coromandel District Council, 2010).

The town of Waihi and mining have been closely interlinked since gold was first discovered there in 1878, with Waihi developing as a prosperous mining town around the development of the original underground workings (QandA Communications Group, 2006). While gold mining has been a persistent part of the economic and industrial underpinnings of Waihi, the cyclical nature of gold prices and economics have seen a number of other industries emerge,

including horticulture, dairy farming, manufacturing and tourism. When the mine closed in 1952, these industries sustained the town.

In 1987, the original underground workings were reopened as an open cut mine with the pit located in the centre of Waihi. This brought mining back to Waihi and in 2002, NWG, a subsidiary of the Newmont Mining Corporation, acquired the operations. Since NWG's announcement of the Correnso mine in 2011, the physical proximity between the mine and the community was further heightened, and in October 2013, NWG gained consent to proceed with the Correnso mine, which stretches directly underneath the residential community of Waihi East (Banarra, 2014). Such consent was, at least in part, facilitated by NWG's community relations process with affected parties about the nature of this extension and the co-development of a series of initiatives to manage the impacts of the Correnso mine. It is these processes which are the subject of our analysis but first we outline the theoretical constructs which guide our analysis.

3. The structural elements of company-community relations

The practice of community relations in the mining sector can be broadly understood as a company's interactions with the people constituting the environment it is operating within and extracting resources from. Such interactions are generally aimed at fostering mutual understanding, trust and support between the company and the community (Kemp, 2010; Holley and Mitcham, 2016). A host community refers to those living within the immediate vicinity of an operation, who are directly or indirectly impacted by a company's activities (Evans and Kemp, 2011). Community relations tend to begin with how best to manage and mitigate the impacts of mining activities (Humphreys, 2000; Hilson, 2012). For example, mining developments can create adverse environmental and amenity impacts associated with increased noise, dust, pollution or other disturbances. While these negative impacts are often managed through formal instruments such as Environmental and Social Impact Assessments and other regulatory instruments, it has been demonstrated that a community's experience of those localised social, environmental and economic impacts of mining and a company's ability to reduce those impacts voluntarily in response to community feedback plays a role in determining their acceptance of mining operations (Moffat and Zhang, 2014).

There is little doubt that mines and communities vary widely across contexts. This means that the nature of those company-community interactions can also look very different based on differences in local priorities (for a company, a community or both), the nature of the mining activity and its history in a place, or even the demographic profile of a community and the mix of other industries comprising the local economy. Despite differences in localised experiences and conditions, there is a common set of structural elements that underpin effective community relations which have been demonstrated to be relevant across diverse mining contexts. These are the contact quality between company personnel and community members, distributional fairness (particularly in relation to unequal sharing of costs and benefits), procedural fairness, and trust. Each of these structural elements is briefly described below and together they provide the conceptual framework for structuring the subsequent analysis of community relations in this case study. Fig. 1 summarises the main elements of successful community relations and the relationships among them.¹

¹ The model and the relationships illustrated in Fig. 1 have been developed based on a range of theoretical and applied research (e.g. Kemp et al., 2006, 2011; Thomson and Boutillier, 2011; Kemp and Owen, 2013; Lacey and Lamont, 2014; Moffat et al., 2014, 2015b; Moffat and Zhang, 2014; Zhang et al., 2015). The arrows represent predicted associations between the elements that can be measured and modelled using structural equation modelling. A positive symbol indicates that more of one element is expected to lead to more of another (e.g. increased procedural fairness predicts increased trust).

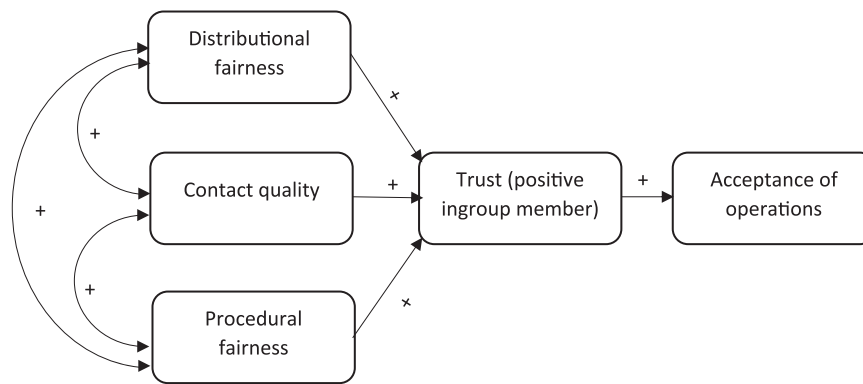


Fig. 1. Overview of the relationships between the structural elements of company-community relations.

3.1. Contact quality between company and community members

Extensive research demonstrates that positive contact or interactions between groups can improve intergroup relations and increase trust between those groups (Pettigrew and Tropp, 2006; Tam et al., 2009; Hewstone and Swart, 2011). This has been shown to be equally true when tested in mining contexts. For example, in a longitudinal survey of community attitudes to mining, Moffat and Zhang (2014) found that the quality of contact between mining company personnel and community members was a significant predictor of trust in the company and acceptance of its operation. Notably, this study also demonstrates the importance of quality in relationships over quantity, showing that the number of interactions is not a significant predictor of trust. These findings corroborate those of Kemp et al. (2011) who also found that the nature and quality of the interface between individuals, plays a key role in mitigating social conflict in mining contexts.

3.2. Distributational fairness

Distributational fairness refers to the extent to which the benefits of a mining operation are perceived to be distributed fairly within a community (Kemp et al., 2011; Zhang et al., 2015). Empirical studies have also shown that people express greater satisfaction when they believe that they receive a fair share of the benefits in a given situation, or else they will tend to reject the arrangement (Colquitt et al., 2001; Cropanzano et al., 2007; McComas and Besley, 2011; Siegrist et al., 2012). In the mining context, the fair distribution of mining related benefits has been shown to be a significant predictor of trust and acceptance of the industry (Moffat et al., 2014). For example, communities may benefit through direct compensation, royalty payments or participation in joint ventures (O'Faircheallaigh, 2002). Other localised benefits may include local employment, training opportunities (Measham and Fleming, 2014) or investment in local infrastructure (Michaels, 2011). Distributational fairness also includes an assessment of net benefit which reflects how people perceive the 'cost' or impact on their communities when they take into account the social and environmental impacts of an operation (Gross, 2008).

3.3. Procedural fairness

Procedural fairness refers to whether individuals believe that they have had a reasonable voice in decision-making processes (Tyler, 2000; Besley, 2010). Perceptions of fairness in processes leading to decision outcomes increase trust between those who are involved in negotiating decisions and ultimately, the acceptance of the outcomes of those decisions, even among those who may be disadvantaged by such outcomes (Lind and Tyler, 1988; Tyler, 2015). Given the increased participation of communities in decision-making about how mining (and other) operations will be developed, designing and implementing fair processes has become a critical part of creating equitable participa-

tion and negotiating the subsequent outcomes (Gross, 2007; Colvin et al., 2015; Lacey et al., 2016). Increasingly the mining industry has sought to create meaningful dialogue among stakeholders in an effort to increase transparency, diffuse conflict and achieve sustainable resource management decisions (Hilson, 2012). However, such ideals are not always successfully realised in practice (Kemp et al., 2011; Holley and Mitcham, 2016; Lacey et al., 2016).

3.4. Ingroup membership and trust

Understanding what drives the relationship between a company and a community is vital to trust (Moffat et al., 2015a). Importantly, trust represents the degree to which the community as a group holds a collective trust orientation towards the company (Poppo and Schepker, 2010). Our examination of trust in the historical survey was limited to a measure of ingroup membership due to the design and availability of historical survey data. In the context of a town like Waihi, which was established alongside the development of mining activities, it can be appropriate to examine ingroup membership as an indicator of trust. An ingroup is a social group to which an individual psychologically identifies as a member as opposed to an outgroup with which the individual does not identify. For example, mining is recognised as an integral part of the township's history and local residents identify their town as a 'mining town'. Because the ownership of the mine changes over time, the mining company that operates the mines may not be automatically regarded as part of the community (i.e. a positive member of that community). In this context, an ingroup can be defined as a bounded community of mutual trust (Brewer, 1999; Hewstone et al., 2002). The extent to which community members regard a mining company as a positive member of their community is likely to determine how much they are willing to cooperate with that company, leading to acceptance of its operation.

4. The present research: Company-community relations pre- and post- the Correnso mine announcement

This paper follows a case study research approach. According to Yin (2009), this approach is appropriate for developing in-depth knowledge and understanding of a particular research context with a view to generating insights that are generalisable to other contexts. In this regard, the Correnso mine represents a unique opportunity to examine complex company-community relations, given the mine's location directly underneath residential housing, the potential effects on the community, and the investment required to develop the resource (Maton, 2015).

This case study research was executed in two stages and is organised according to the chronology of events surrounding the announcement of the Correnso mine. The first stage assesses the quality of the company-community relationship prior to the announcement being made to the community (2011). This provides a quantita-

Table 1
Descriptive statistics and partial correlation controlling for age.

	M (SD)	1	2	3	4	5
1. Distributional fairness	8.54 (1.67)	1				
2. Contact quality	8.65 (1.71)	.69***	1			
3. Procedural fairness	8.01 (2.23)	.78***	.69***	1		
4. Positive ingroup membership	9.01 (1.98)	.81***	.70***	.83***	1	
5. Acceptance	5.89 (1.39)	.49***	.39***	.58***	.60***	1

*** < .001; Acceptance was measured on a 7-point scale (1=strongly not in favour, 7=strongly in favour). All others were measured on an 11-point scale (0=[the statement] not describe NWG at all, 10=[the statement] describes NWG extremely well).

tive baseline for examining the level of acceptance of the existing operations and the key drivers of trust in the relationship between NWG and the Waihi community at that time. The second stage documents key elements of the community relations processes after the announcement of the Correnso mine (2011–2014) with a focus on how the company and the community collaboratively negotiated acceptable outcomes. This descriptive analysis interrogates the processes of engagement that were co-developed and implemented immediately following the extension through to approval and commencement of the mine.

4.1. Pre-announcement: The baseline of trust and acceptance in company-community relations

In order to understand the nature of the existing company-community relationship prior to the announcement, a secondary analysis of historical, de-identified community survey data was undertaken.

4.1.1. Method

The original community survey was designed and undertaken by an independent market research company and implemented as a computer assisted telephone interviewing (CATI) survey in mid-2011 to assess community opinions about NWG's existing operations. The survey area included Waihi and its adjacent surrounding areas, with participants sampled from the local telephone directory. Only one person aged 18 or over from one household could participate. Of the households contacted, 62% agreed to take part in the survey. In total, 500 people participated in the survey. Due to the nature of the survey design where the allocation of questions to participants was randomised, some questions were only answered by some of the participants.

As a result, only 181 people provided a response to all the measures of interest to our analysis. Thirteen of those were employees of NWG, and were excluded from analysis to avoid potential bias towards the assessment of contact quality between NWG employees and the community. In total, 168 community members were included in the following analysis (87 males; 81 females). The age of participants was 18–29 years (4.8%), 30–44 years (8.3%), 45–59 years (35.1%), and 60 years and over (51.8%). The length of time living in the region for participants was less than two years (1.2%), 2–5 years (9.5%), 5–10 years (20.8%), 10–20 years (18.5%), and over 20 years (50%). The annual income of participants was under \$30,000 (26.2%), \$30,000–\$55,000 (22%), \$55,000–\$80,000 (20.2%), \$80,000–\$115,000 (6.5%), over \$115,000 (10.1%), and prefer not to say (15%).

The measures used for the present study were drawn from a larger questionnaire used for the survey. All responses to the scales were provided on an 11-point scale (0=not describe the company at all, 10=describes the company extremely well), unless otherwise stated. All scores were averaged, such that higher scores indicate higher qualities of the measured constructs. *Distributional fairness* was measured with three items asking participants to indicate how accurate each statement was: [NWG] “is good at hiring local people”, “is good at buying goods and services from local businesses”, and “provides financial support to

the community” ($\alpha=.81$). *Contact quality* was measured with two items asking participants to indicate how accurate each statement was: [NWG] “has staff who make positive contributions by their involvement in the local community” and “has staff who behave well in and around town” ($r=.76$). *Procedural fairness* was measured with two items asking participants to indicate how accurate each statement was: [NWG] “listens well to concerns people may express about mining” and “responds effectively to concerns people may express about mining” ($r=.89$). *Positive ingroup membership* was measured with one item: “Overall, [NWG] is a responsible and positive member of the local community”. In this survey, this measure of ingroup membership was the closest available proxy for trust. Finally, *acceptance* was measured with two items on a 7-point scale (1=strongly not in favour, 7=strongly in favour). As the operations consist of both underground and open-cut mining, participants were asked to indicate how much they were in favour of NWG's underground mines and its open pit mine ($r=.76$). This provided a measure of acceptance of the NWG operations.

4.1.2. Results

Gender, length of time living in and around the town, and income were not associated with any of the key variables. Age, however, was positively linked to acceptance ($r=.17$), such that the older the participants were, the higher their acceptance level was. Hence, age was controlled for in the following correlation analysis. Table 1 represents the descriptive statistics and partial correlations for the key variables.

As shown in Table 1, participants strongly believed that NWG's mining operation generated great benefits for the community, their contact with its employees was very positive, and NWG demonstrated a high level of procedural fairness. Correspondingly, participants highly regarded NWG as a positive ingroup member (suggesting a strong baseline of trust), and reported a high level of acceptance of NWG's mining operations. In addition, the key variables were strongly and positively correlated with each other. For example, the more participants thought NWG listened to and responded to their concerns, the more they reported that the community benefited from NWG's mining, and the more they perceived having positive contact with NWG employees, the more they regarded NWG as a positive ingroup member of the community, which was associated with their acceptance of NWG's mining operations.

Based on the model illustrated in Fig. 1, AMOS 23 was used to conduct a path analysis.² The goodness of fit of the model was assessed using the Chi-square test, the comparative fit index (CFI), normed fit index (NFI), and standardized root mean residual (SRMR).³ A satisfactory fit is indicated by a non-significant chi-square test, $CFI \geq .95$, $NFI \geq .95$, and $SRMR \leq .05$ (Hu and Bentler, 1999; Kenny and McCoach, 2003). It is also noted that, with large samples, Chi-square tests are hardly insignificant. In such cases, satisfactory fits of other indices are particularly important (Kenny and McCoach, 2003).

Fig. 2 presents the standardized parameter estimates for a path model showing the strength of the associations between the key variables of company-community relations prior to the Correnso announcement. Although the Chi-square test was significant ($\chi^2[3df] = 7.909$, $p=.048$), other indices suggested the model fit is very good: $CFI=.987$, $NFI=.992$, $SRMR=.023$. The model revealed that 77% of the community's perceptions of the company as a positive ingroup member (i.e. trust) were predicted by the variables measured here. Similarly, 35% of the community's acceptance of NWG's operation was also predicted by these variables. Both results are substantial.

As predicted, perceived benefits were positively associated with

² AMOS 23 is the structural equation modelling (SEM) program used for this analysis. Path analysis is an extension of multiple regression analysis, and aims to provide estimates of the significance of the causal relationships that exist between variables.

³ The goodness of fit of a model describes how well the proposed model reflects a set of observations. A number of tests were applied to check goodness of fit as outlined here.

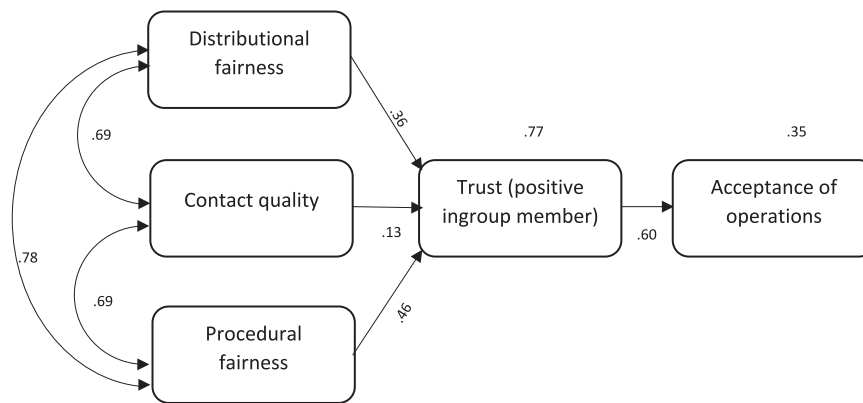


Fig. 2. A path model of the drivers of community acceptance of NWG's mining in Waihi prior to the announcement of the Correnso mine.

regarding NWG as a positive ingroup member of the community ($\beta=.36$, $p < .001$). Participants who experienced more positive contact with NWG's staff were more likely to believe that NWG was a positive ingroup member ($\beta=.13$, $p=.017$). Furthermore, procedural fairness was the strongest predictor of regarding NWG as a positive ingroup member ($\beta=.46$, $p < .001$). That is, the more participants believed that NWG listened to, and responded to, their concerns regarding mining operations, the more they would regard NWG as part of their community. Finally, positive ingroup membership strongly predicted acceptance of NWG's mining operations ($\beta=.60$, $p < .001$). The results of this path analysis strongly suggest that the distribution of mining associated benefits, positive contact with the mining company's employees, and fair procedures in engaging with the community were significantly linked to community members' trust in the company, which in turn, led to the acceptance of NWG's operations. These results demonstrate that the quality of the company-community relationship, and in particular, procedural fairness was the strongest predictor of trust and acceptance of NWG's operations at that time.

4.2. Post-announcement: Content analysis of engagement processes and interviews with stakeholders

In order to interrogate and describe the processes of successful community relations, this stage of the case study research involved a content analysis of archival content and secondary sources, and the collection of primary data through interviews. As part of the research process, NWG made key documentation relating to their community relations program available for analysis, and this was supported by publicly available secondary sources, such as Social Impact Assessment studies of the Waihi gold operations. The analysis of this documentation allowed us to identify the key priorities underpinning the community relations strategy and how they were developed during the subsequent community relations engagement. A series of interviews with a small sample of key stakeholders to understand the experience of the community relations processes were also undertaken.

4.2.1. Methods

In addition to the desktop review, thirteen (13) interviews were undertaken with representatives of the company, consultant service providers, community members, and local government. An initial list of contacts was supplied by the company from which participants were randomly selected. Snowballing was used to identify additional participants for the case study and to ensure independent and diverse views were represented (Singleton and Straits, 2005). Less than half of the 13 interview participants were employed by the company (i.e. more than half of the views canvassed were from outside the company). The research study was subject to a full human research ethics approval and all participants provided their consent to be interviewed. Although the research was supported by the company, to maintain the independence

of the analysis, it was agreed that all interview data remain confidential to the research team. The small sample of interview participants was appropriate given the context required purposive sampling of the roles and experiences of the community relations in a small community, and that these data were part of a broader mixed methods study (Teddlie and Yu, 2007).

The interviews focused on the participant's role in and/or experience of the community relations surrounding the Correnso mine (or other parts of the NWG operations, if relevant). In relation to the Correnso mine, participants were asked to comment on a number of formal community engagement processes, and their experiences or perceptions of fairness in these processes. The participants' comments were audio recorded, transcribed and verified by the participants for accuracy (Singleton and Straits, 2005). The transcripts were thematically analysed independently by two members of the research team, and then interrogated by a third researcher in order to identify similarities and differences in the identified themes (Miles and Huberman, 1994). Given the small number of interview participants in this study and because Waihi is a small community, a decision was taken not to use direct quotes in order to protect participant confidentiality. Therefore, the results were organised into key themes that described the processes of engagement and the participation of company, community and other stakeholders in designing those processes.

4.2.2. Results

4.2.2.1. Early engagement with community based on research and existing trust. The consultation process for the Correnso mine commenced with a public announcement about the proposed project in August 2011. Although NWG made this announcement with a good understanding of the high level of trust that existed between the company and the community at that time (based on the survey results), there was also a recognition that proposing to extend their operations directly beneath residential homes would raise concerns within the community. For example, Waihi has a history of subsidence related to historical mining activities with three significant events occurring in 1961, 1999 and 2001 (QandA Communications Group, 2006). The Correnso mine proposed to tunnel 200–300 m underneath homes in Waihi East and within the proximity of community facilities, such as a kindergarten and school (Banarra, 2014). It was therefore recognised that even though there was already an extensive community relations strategy in place around the existing operations (i.e. NWG staff were well known and embedded within the local community, and there were already a number of programs to mitigate or compensate for impacts in place), the extension would potentially change the way mining was perceived and experienced within and by the community. The initial consultation revealed significant fears and anxiety in the community related to safety issues and other potential impacts.

Thus, a critical step in the community relations process was preparing a strategy to support early engagement that was informed by research and data (e.g. surveys, pre-existing knowledge of community concerns and experiences). This reflected a commitment to understanding and ‘knowing’ the community and their preferences. This preparation also included mapping how the proposed extension might change the profile of impacts experienced by the community and how these impacts might be mitigated by the company. In recognition of the existing close proximity of the mining operations to residential properties, the company already had a well-established Amenity Effect Program (AEP) in place to compensate residents experiencing impacts on their amenity (related to vibration, noise, dust), even though the operations were being conducted within strict compliance consent limits. While the AEP existed as a voluntary scheme to compensate the amenity loss experienced by the community, with the proposed Correnso mine, NWG recognised early on there would be a need to address potential negative effects on the property values of residential homes and be responsive to concerns to related issues such as subsidence and safety. This implied a need to consider how the company would deliver benefit to the community, whether through adapting existing compensations options or exploring new options.

4.2.2.2. High quality contact during (and following) the announcement. The announcement involved extensive community consultation. The aim was to engage as many affected and interested parties as possible in an open process, and obtain their feedback. This feedback was then directed into shaping a range of strategies for ongoing community relations processes. The parties identified as being potentially affected by the project included land owners and occupiers in the immediate vicinity of and neighbouring the proposed Correnso mine, the remaining population of Waihi, Iwi groups,⁴ government departments, agencies, regional and district councils, community groups and other interested parties, Waihi businesses, real estate agencies, NWG staff and contractors, politicians, the wider community (beyond Waihi) and the media. The consultation included a range of established mechanisms for communicating and receiving feedback such as meetings, home visits, mail drops, updates in local media, establishing a centrally located office shopfront for enquiries, and engaging with government departments, elected officials and industry bodies. NWG conducted a number of meetings with Iwi, regulators, education groups and supported meetings of neighbourhood and community groups. This included active engagement with two citizen opposition groups: Distressed Residents’ Action Team (DRAT) and Waihi East Ratepayers Group Inc (WERGI). A number of updates about the proposed extension were also included in the fortnightly community paper, and via local radio and national media (preferred communication channels in the community). Additionally, site tours of the existing underground operations were offered to residents to familiarise them with underground mining, including the safety measures in place to protect both staff and community.

The nature of the contact was also highly personalised. For example, immediately following the announcement, initial home visits were conducted throughout Waihi East (approximately 440 homes likely to be impacted by the Correnso mine). To reach all households quickly (within 2–3 days of the announcement), NWG utilised staff from both the technical (i.e. underground operations) and community relations parts of the company to talk personally with residents about the proposed Correnso mine. This brought residents into direct conversation with company personnel; often those who lived in the community and were well known to them. It also meant that residents

were often discussing the impacts of the proposed development with the people who would be working directly beneath their homes. This process was designed to elicit initial questions and concerns from community and encourage their further engagement. This was followed by two subsequent door knocking processes to collect further input into how the company might deliver personal and community benefit back to Waihi residents most impacted by the Correnso mine. In addition to this targeted and personalised contact, information brochures and Q & A factsheets were also distributed to all homes in the greater Waihi area.

4.2.2.3. Responding to opposition and consent conditions by co-creating innovative processes that enhanced procedural fairness and trust. There was open opposition to the extension, with the objections mostly based on residential amenity effects (from blasting, noise and dust) and the associated effects on health, well-being and property values (Banarra, 2014). A number of the community objections raised throughout the consultation period ultimately provided the basis for the consent conditions that were established and approved by the Environment Court of New Zealand in October 2013 (Independent Commissioner’s Hearing Panel, 2013). These consent conditions included the establishment of a number of new formal processes designed by NWG in close collaboration with the community and other stakeholders. For example, under the standard regulatory requirements, the inclusion of social processes tends not to be defined within consent conditions and thus, such processes tend to be voluntarily pursued. However, NWG and the community agreed that these processes should be made binding within the consent conditions in order to demonstrate both ongoing commitment to this engagement and the importance of the quality of the relationship between the company and community, and also to provide a mechanism for preserving these agreed conditions under any change of ownership of the asset. This decision to make these social processes and commitments enduring for current and future owners of the mine reflects elements of the covenant arrangements that are more often used to protect conservation values in perpetuity (e.g. Saunders, 1996; Harrington et al., 2006). Subsequently, a number of key formal processes were established as a result of this consultation. Three examples of these co-designed community relations processes are briefly outlined.

The Property and Community Investment Policy (PCIP) was implemented by NWG after extensive consultation with the community, as a goodwill program that exceeded the company’s legal requirements. The PCIP was designed to provide oversight and transparency to how the company would be responding to matters of property damage and purchase, compensation for amenity loss, and annual investments in community improvements including annual payments to schools, kindergartens and day care centres in the extension area. The community worked collaboratively with the company to establish the parameters of the PCIP. The community feedback informed both the content of the final policy and how it was implemented. This included extensive consultation with citizen opposition groups to establish acceptable guidelines to improve community confidence in NWG’s operations and processes.

In addition to the PCIP, an Independent Review Panel (IRP) was designed to act as an ‘Ombudsman’ for property matters in the Correnso mine area. Because matters relating to property were a high priority for the community, it was critical to be able to demonstrate that decisions were reached in a fair and impartial manner. This was also important for addressing perceptions that past decisions had been unfair. The IRP is made up of independent experts from outside Waihi. The positions on the panel are advertised publicly and are funded by NWG, but are not open to Waihi residents. The IRP has responsibility for administering the property purchase fund, mediating damage

⁴ In New Zealand, Iwi are the largest social units in Maori culture.

claims, and making other property related decisions. All decisions are based on transparent criteria, which are assessed by the panel members (not NWG). The criteria were established through community consultation. More importantly, the decision-making power was placed with an agreed and independent third party reducing perceived bias and unfairness in the decision-making processes and outcomes.

Finally, the Waihi Community Forum (WCF) was established through a Memorandum of Understanding between the community, local government and NWG to assist in the governance of the PCIP and the selection of the IRP members. The WCF also provides a forum for constructive dialogue between the community, NWG and local council, with majority membership held by community members and two seats each held by NWG and local government. The community positions are advertised publically and all meeting minutes and decisions are also shared publically. This procedure increases transparency in the process and brings together key parties to reach decisions collaboratively in a public forum.

These innovative procedures played a critical role in maintaining trust between the community and NWG during a highly challenging period of negotiation, particularly for those home owners located directly above the stopes⁵ of the proposed development. It also appears that it was possible to maintain engagement and trust between NWG and the community by implementing evidence-based and early engagement, personalising contact to create a better quality engagement experience, and committing to the development and implementation of collaboratively designed procedures. This ensured fair distribution of remedies for impacts, through highly transparent engagement processes that shared decision-making beyond the company. However, it was also openly acknowledged that achieving the outcomes took time. The community was never passive in these negotiations. There was also wide recognition in the interviews that the ultimate success of the process required ongoing commitment from both company and community to realize these outcomes. We highlight the key outcomes in more detail below.

5. Discussion

Based on the above analysis of the quality of company-community relationship prior to the announcement and the community relations processes implemented in the period following the announcement, a number of claims can be made. The quantitative community survey conducted prior to the announcement of the Correnso mine revealed that there was a high level of trust and acceptance of NWG and its operations within the community, which had been built up over many years. This trust (measured as ingroup membership) and acceptance of NWG and its operations was driven mainly by procedural fairness between company and community ($\beta=.46, p < .001$), followed by the distributional fairness of benefits in the community ($\beta=.36, p < .001$), and finally, the quality of contact between NWG personnel and community members ($\beta=.13, p=.017$). These results confirmed that the expected associations between the key structural elements of successful company-community relations were reflected within the Waihi context (Moffat and Zhang, 2014; Zhang et al., 2015). The results also revealed that while procedural fairness was the strongest predictor of trust and acceptance in this context, the associations between procedural fairness, distributional fairness and contact quality were particularly strong and it is these associations that appear to have contributed to the significant levels of trust and acceptance observed. The qualitative study of the company-community relationship post-announcement revealed that even with this strong baseline of trust and acceptance of the existing operations, there was a need to establish new ways of thinking about engagement, delivering benefit to the commu-

nity, mitigating impact and negotiating mutually acceptable outcomes. In many ways this was about bringing the community and other stakeholders 'inside the fence' so that decisions about the development of the Correnso mine could be reached collaboratively (Bitektine, 2011). During this engagement, it was clear that high quality and personalised contact was a critical component. Many of the interactions between NWG, community and other stakeholders also focused on the distribution of benefits with a particular focus on compensation and mitigation of impacts of the Correnso mine. However, procedural fairness was a central theme that ran throughout the engagement, culminating in the development of a number of innovative mechanisms for enhancing trust and fairness in the interactions (Cropanzano et al., 2007; Lacey et al., 2016). If the science of community relations is the 'knowing', then the art of community relations must lie in the 'doing', and the success of the long period of frequently challenging consultation and negotiation around the Correnso mine strongly reflected each of the key structural elements of successful community relations in practice.

5.1. Contact quality between NWG and the Waihi community

The company's community relations around existing operations were already characterised by a high level of regular engagement with the community. Many of the NWG personnel were also members of the local community (Evans and Kemp, 2011; Kemp and Owen, 2013). This underpinned a deep knowledge of and embeddedness within the community that supported the existence of trust between NWG and the Waihi community (Pettigrew and Tropp, 2006; Hewstone and Swart, 2011). While contact quality was already a driver of trust and acceptance in this context, the door knocking of 440 homes affected by technical and community relations staff within the first days after the announcement is of interest. This process brought community and NWG personnel into direct conversation to discuss impacts of the Correnso mine. This meant the staff engaging with the community, listening to their concerns, and answering their questions were also those with deep understanding of underground mining, and who may have been working directly beneath the houses visited. However, these staff were also members of the Waihi community themselves. This provides a tangible example of how the company demonstrated an understanding of the complex community dynamics at play to deliver high quality and personalised contact (Moffat and Zhang, 2014). In addition, it demonstrates that NWG was also able to provide a unified message about the Correnso mine development from across the technical and community relations parts of the business that could be communicated directly with the community (Kemp et al., 2006). In addition, NWG staff remained visible and accessible throughout the community relations process, including at meetings where there was significant tension and negative feedback about the Correnso mine. Contact quality, however, was closely interlinked with listening to the community's concerns (procedural fairness) and understanding the community's priorities about impacts and their mitigation (distributional fairness).

5.2. Distributional fairness

A core community concern related to the Correnso mine were the potential negative impacts on property values and how this would be managed by NWG. There was already a program in place to compensate affected residents for their loss of amenity (i.e. the AEP) but it was recognised that the existing program would need to be adapted to accommodate the additional impacts associated with the Correnso mine. In response, the PCIP was established to preserve property values within the community. This included establishing a policy for houses that would be purchased outright and collaboratively developing criteria for guiding additional purchases and compensation for property damage. Extensive consultation was also undertaken with the

⁵ Stopes are the underground spaces created by mining operations after the ore has been removed.

real estate and banking sectors to inform the development of the new policy. These efforts sought to ensure that compensation was perceived to be distributed fairly within the community, which is a critical predictor of both trust and acceptance (Kemp et al., 2011; Zhang et al., 2015). As Whiteman (2009) also observes the perceived fairness in compensation arrangements, payment of royalties or other financial arrangements, and the distribution of social and environmental impacts are critical to the way in which mining is experienced by communities. The development of the PCIP and criteria to promote transparency also demonstrated a shift to using an evidence-based approach to decision-making about property and compensation, which was critical to achieving procedural fairness in the interactions between company and community on matters that were, at times, controversial and contested.

5.3. Procedural fairness

The process required to reach an outcome can be as important as the outcome of the final agreement itself (Moffat et al., 2015b; Lacey et al., 2016), and it is perhaps in procedural fairness where the art and science of community relations intersect most strongly in this case study. The importance of community relations is well understood in the mining sector (Viega et al., 2001). But simply recognising its importance is no guarantee that participation, reciprocity and trust in those relations will be achieved (Kemp and Owen, 2013; Holley and Mitcham, 2016). While community relations is invariably underpinned by science, getting the implementation and delivery right is invariably considered an art. It is one thing to understand a process needs to be fair but quite another to design and deliver it so that those involved experience it as a fair process (Gross, 2007, 2008; Lacey et al., 2016). A critical part to ensuring procedural fairness in mining contexts tends to be reflected where a community believes they have a reasonable voice in decision-making processes and outcomes (Kemp, 2010; Hilson, 2012). NWG's commitment to creating a space for constructive dialogue between the company, community, and other stakeholders underpinned the whole ethos of the community relations program (Tyler, 2000; Besley, 2010). One example of bringing community into the decision-making process was the creation of the WCF, the election of community representatives to this forum, and involvement in its ongoing administration. The need for a forum of this kind arose directly from the dialogue between company and community, and it effectively brought together community, company and local government representatives in a dialogue and decision-making process that represented multiple interests and perspectives. The make-up of this forum also meant that joint decision-making was possible as multiple parties were represented 'at the table'. While the initial proposal to include the company and even the council was opposed by some who felt the forum should be the sole domain of the community, the need to bring multiple perspectives into conversation with each other and to reach decisions collaboratively evolved as the real strength of the forum.

Procedural fairness was also embedded within every aspect of how the distribution of benefits within the community was negotiated (Bitektine, 2011; Kemp et al., 2011). While the forum was conceived as a formal and transparent process, it also administered other initiatives such as the PCIP. While the PCIP was established as the key mechanism for ensuring distributional fairness in matters of property compensation, the process of developing the PCIP required the participation of the community to shape the criteria that would be used to collaboratively develop the content of the final policy. The fact that, community groups that openly and actively opposed the Correnso mine were also involved in shaping the development of the PCIP demonstrated that diverse perspectives were incorporated in its development, bringing increased confidence in the fairness of the policy and how it would be implemented (Lind and Tyler, 1988; Tyler, 2015). In many ways, the processes that enhanced fairness in the company-

community interactions in Waihi were about devolving elements of decision-making outside the company and involving the community and other stakeholders in a process of collaboratively developing participatory solutions. As Kemp et al. (2011, p.99) argue "unless there is dialogue between disputing parties to develop mutual understanding about interests and values and agreement on the process involved in resolution, justice is less likely to be achieved". Where such processes are fair, trust and acceptance of operations is enhanced (Lacey and Lamont, 2014; Moffat and Zhang, 2014; Holley and Mitcham, 2016). In the Waihi case study, we argue that these findings point to how the art and science of community relations function in practice, and how trust in the relationship between company and community is created by procedural fairness in those interactions.

5.4. Limitations of this study and further research

While the mixed-method case study allowed us to triangulate our findings and develop insights from multiple data sources that were collected over time, using an historical survey data set to establish the baseline of acceptance prior to the announcement of the Correnso mine brought some limitations to our analysis. For example, to utilise the existing data set, measures were sought that aligned with existing theoretical concepts. For the most part, such measures were present in the original survey. However, a concession was made when including a measure of trust in NWG, which was to use a single item measure from the original survey which assessed the extent to which NWG was perceived as a positive ingroup member of the community. In such cases, multiple item measures tend to be more reliable. Another concession was that although multiple items were available for most items, not all measures were not entirely comprehensive. Additionally, there were no measures of perceived impacts of NWG that could be included in the path analysis that may have highlighted particular areas of concern about mining in Waihi pre-announcement. It is also recognised the availability of a post survey to assess changes in the drivers of trust and acceptance over time would have added significant value to our analysis. Unfortunately, undertaking a community scale survey was well beyond the scope of our study. We do, however, appreciate the insights we were able to generate from the historical data made available to us for the purpose of conducting new analyses.

The history of company and community relations, and the processes of engagement for the extension were recreated from a combination of archival sources, such as company documents and impact assessments, and interviews with multiple stakeholders. The diversity of these sources was essential in ensuring an accurate account of events. An additional benefit of working with this range of data was the opportunity to interrogate the social processes in the Waihi case study to provide a deeper, qualitative description of how procedural fairness, distributional fairness and contact quality interact in context. Further research is recommended on the nature of contact quality in community relations practice. While the quantitative analysis showed that contact quality was a predictor of trust and acceptance and our qualitative study found that one of the central engagement processes reflected highly personalised contact, there would be benefit in identifying and interrogating the elements of high quality frontline contact between company and community (e.g. the role of empathy, communication style, training, skills etc).

6. Conclusion

The present study has provided an opportunity to reflect on what the art and science of successful community relations looks like in practice. The value of this case study is that it both confirms the theoretical and applied research about successful community relations practice and what drives acceptance of mining operations (e.g. Kemp et al., 2006; Moffat and Zhang, 2014) and it provides new insights and tangible examples of how structural elements interact with each other

and how elements such as procedural fairness can be realised in complex and challenging settings. The community engagement processes and mechanisms developed through extensive engagement around the proposed Correnso mine effectively adopted a multi-stakeholder approach that brought community, government, company and other stakeholders together in a participatory and collaborative engagement.

It was recognised by all stakeholders interviewed for this study that this period of engagement was often challenging and difficult. However, the commitment by NWG to ensuring community 'had a say' in the process, providing options for the community to consider and adapt, and proactively addressing fears and key issues, such as property values, were central to embedding fairness in those processes. Similarly, the community's willingness to engage in these processes and shape the outcomes lifted the community relations processes beyond the standard legislative requirements of mining developments. The collaborative nature of the engagement highlighted that these processes were not simply driven by the company, but rather that operationalising procedural fairness through the co-creation of multi-stakeholder governance arrangements made it possible to navigate acceptance of a potentially threatening and disruptive development (Rich and Moberg, 2015).

In considering the art and science of community relations and how they intersect in practice, the Waihi case study reveals that where science underpins our knowledge of community relations practice and is most often reflected in evidence-based approaches to engagement such as the use of research, polling, and developing a systematic understanding of communities and their perspectives, the art of community relations lies in the effective delivery of this vision. This is reflected in the deeply embedded knowledge of community and 'know-how' in the skills of those working at the frontline of community relations practice (Colvin et al., 2016) but it also reflects an ability to work in collaborative arrangements that draw on multiple stakeholder perspectives that operationalise procedural fairness, distributional fairness and contact quality in ways that will meaningfully enhance trust in those company-community interactions.

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