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Communication in the workplace: Defining the conversations of supervisors

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ABSTRACT

Background: Communications plays a central role in promoting the health and wellbeing of workers. Although much literature has shown the positive benefits of safety communication in the workplace, research has yet to explore the nature of these communication practices within supervisor–worker relationships. This study overcomes this gap in the literature through objectively monitoring communication within the daily working lives of work-group supervisors in one organization. *Aims:* The aims of the research were to: (a) categorize communication in the workplace into three categories, namely task-related communication, relationship-related communication, and safety-related communication; and (b) explore the frequency of these dialogs. *Method:* We periodically recorded brief snippets of ambient (acoustic) sounds in supervisors' workplace environment by using an Electronically Activated Recorder (EAR). The EAR was run on an Apple iPod, with an application downloaded for free on iTunes (i.e., iEAR). The EAR was programmed to record for 30 s every three minutes for eight working hours a day of a five-day working week. *Results:* A total of 12.38 h of acoustic sounds from five workgroup supervisors was useable for coding. The results found examples of task-related (productivity, efficiency, workflow, and human resources) communication, as well as relationship-related (greetings, personal life discussions, workplace relations), and safety-related communication. We also found that the majority of the communication recorded was task-related communication compared with relationship-related and safety-related communication. *Practical applications:* This research provides preliminary insights into communication practices in the workplace and avenues for future research.

1. Introduction

Safety is a major concern for organizations due to the human and financial costs associated with unsafe behavior and safety-related events. In Australia, 337 people died from a work-related traumatic injury in 2009–2010 (SafeWork Australia, 2012c). In the same period, 127,620 serious claims were accepted for workers' compensation that involved a serious injury or disease, representing an incident rate of 12.6 serious claims per 1000 employees (SafeWork Australia, 2012a). Furthermore, the total economic cost of work-related injury in the Australian economy was estimated to be $60.6 billion (SafeWork Australia, 2012b). These statistics highlight the social and economic significance of workplace safety.

Much attention has been given to determining the organizational factors influencing workplace safety (e.g., Hofmann, Morgeson, & Gerras, 2003; Neal & Griffin, 2006; Zohar, 2000). Research has largely focused on the concept of a safety culture, defined as the value and priority given to safety (e.g., Hofmann et al., 2003; Neal & Griffin, 2006; Zohar, 2000). However, for the past 40 years, the safety culture literature has largely been focused at a conceptual level, with debates focused on either the difference between the concepts of culture and climate or the sub-dimensions of safety culture.

Although this research has advanced our understanding of culture, limited research has explored the safety practices that constitute a safety culture. One reason for this approach is that safety culture has primarily been measured through self-report surveys. The problem with this is that surveys provide limited understanding of the practices underlying the dimensions (e.g., management commitment, interpersonal communication) that create a safety culture. Research is required to overcome this limitation so that countermeasures can be designed to target the practices that facilitate and support a safety culture.

The first step in achieving this objective is to reflect on the findings of past research. Two findings of particularly interest are that: (a) management commitment has consistently been identified as a sub-dimension

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of safety culture (Zohar, 1980); and (b) leadership styles that promote the health and wellbeing of the workforce strengthen the relationship between supervisory safety practices and workers' safety culture perceptions (Hofmann et al., 2003; Neal & Griffin, 2006; Zohar & Luria, 2004). At a conceptual level, this research suggests that the practices of supervisors play a key role in creating and encouraging a safety culture.

The communication practices of supervisors have received some attention in the academic literature (e.g., Cigularov, Chen, & Rosecrance, 2010; Newnam, Lewis, & Watson, 2012; Zohar, 2002; Zohar & Polacheck, 2014). This literature has identified that supervisors play a key role in conveying the importance of safe working practices through encouraging participation in safety management and ensuring vigilance and motivation among team members. Research has identified that modifying the verbal exchanges between supervisors and their employees through increasing the frequency and prioritization of safety-related messages over productivity positively influences the groups' safety culture perceptions and safety behavior (Zohar, 2002; Zohar & Polacheck, 2014). Indeed, intervention such as the Behavior-Based Safety approach (BBS; Geller, 2001, 2005) that identifies communication as one element of intervention, acknowledges that positive and constructive communication plays a key role in promoting a safe and healthy workplace.

Communication practices can have a significant impact on the quality of relationships developed within the workplace. An understanding of this issue can be gained through Social Exchange Theory (SET). SET describes the interactions between individuals and the development of relationships (Blau, 1964) and has been used to explore the relationships that develop between individuals and the larger organization (Eisenberger, Fasolo, & Davis-LaMastro, 1990), The social environment in the workplace reflects the atmosphere of social interaction and is observed in the behavior of workers and the quality of socialization between team members. According to Blau (1964), the satisfaction experienced when individuals perceive fair returns for their expenditures is reflected in a quality social exchange. An example of a fair return is positive or constructive feedback communicated by workgroup supervisors to workgroup members (e.g., Geller, 2005; Hofmann & Morgeson, 1999; Hofmann et al., 2003; Newnam et al., 2012; Zohar & Luria, 2004).

The nature or features of communication practices between supervisors and workers can be largely dependent on the workplace environment. There are unique challenges in enacting particular communication practices in the workplace. The first challenge relates to the workplace context. A distinctive characteristic of many organizations is in their workplace structure; in particular, the level of visibility between supervisors and their workers. The level of visibility refers to the extent to which the layout of the workplace enables a supervisor to directly observe worker performance (Luria, Zohar, & Erev, 2008). Research has shown that level of visibility has a significant impact on safety-related behavior (Luria et al., 2008; Newnam et al., 2012; Newnam & Oxley, 2016). This impact is best represented in high-risk industries, such as the transportation industry where the driving task is conducted independently of management supervision (Newnam et al., 2012). In such workplaces, it is difficult for supervisors to objectively communicate information on workers' safety-related performance. Thus, communication is more likely to focus on task-related performance, given it is measured against tangible indicators, such as completion rates.

The second challenge relates to competing priorities. Conflict among priorities is an intrinsic feature of organizations, and integrating contradictory priorities has been acknowledged as a core function of leadership (Barnard, 1968). Safety has often been identified as a source of conflict with demands for profitability (i.e., efficiency). One reason for this is that profitability and safety are both essential priorities but often make competing demands upon limited resources (Rasmussen, 1997). In practice, this means that communication related to productivity and efficiency is more likely to be prioritized over communication intended to support and promote a safe and healthy workforce; this is based on the understanding that economic incentive is a strong motivator of individual and organizational behavior (i.e., Belzer & Sedo, 2017).

These challenges suggest that the nature of communication is likely to be different across organizations. In this study, we explored this issue through defining communication practices within supervisor–worker relationships. We hypothesize two types of communication in the workplace:

Task-related communication describes dialog related to the productivity and efficiency elements of the work-role task.

Safety-related communication describes interactions related to articulating compliance activities that need to be carried out by individuals to maintain workplace safety (e.g., technical aspects of safety, linked to OHS policies and procedures).

There is also likely to be a third type of communication practice. Research has clearly identified a division of behaviors directly related to safe working practices (i.e., safety compliance) and those behaviors that support the overall safety of the organization (i.e., safety participation; Griffin & Neal, 2000). This research was also aligned with SET in so far as there are likely to be communication practices that support the broader social environment as well as maintenance of the overall safety system, as opposed to those that are prescribed as part of the work-role task (safety-compliance communication). Thus, the third type of communication practice can be defined as:

Relationship-related communication describes dialog that defines the social environment of the workplace and reflects sincere concern for worker health and wellbeing.

1.1. Research questions

The objective of this research was to explore interpersonal communication in the workplace, with the aims to: (a) identify examples of task-related communication, relationship-related communication, and safety-related communication in the workplace; and (b) explore the frequency of task-related compared with relationship-related and safety-related communication in one organization.

2. Method

Participants: Recruitment for this study was sought through a science and technology company in a state in Australia. A recruitment letter was distributed by the leader of the OHS department to 12 supervisors within the organization. Following this process, six workgroup supervisors (two males and four females) agreed to participate in the study; however, data from one supervisor were subsequently deleted from the final analysis. Workgroup supervisors were defined as those who monitor and regulate workers in their performance of assigned tasks. These supervisors were responsible for overseeing lab-based experiments and the development of products and services for their key stakeholders. There was an average of four employees within each supervisory workgroup.

Measures: In this project, we periodically recorded brief snippets of ambient (acoustic) sounds in the supervisors' workplace environment by using an Electronically Activated Recorder (EAR; Mehl, Pennebaker, Crow, Dabbs, & Price, 2001). The EAR was run on an Apple iPod, with an application downloaded for free on iTunes (i.e., iEAR). The supervisors were asked to wear the device in a visible location, such as attached to their belt or on a lanyard around their neck. The EAR was programmed to record for 30 s every three minutes for eight working hours a day of a five-day work week. A total of 17.88 h of acoustic sounds was originally recorded. However, one supervisor requested that the research team delete her data due to the confidential nature of the recordings; thus a total of 12.38 h of recordings were coded.

Procedure: On the first day, participants were thoroughly informed about the EAR procedure. We undertook a number of processes to ensure privacy and confidentiality of the data. First, the data extracts were short enough to capture only a small amount of contextualized personal information. Second, before the investigators accessed the data, all participants were given the opportunity to listen to their iEAR recordings and delete any parts they did not want on record (all recordings were retained following this process). Third, in the coding process, any personally identifying information was omitted from the transcripts. Fourth, all employees in the workplace were notified of the research and the investigators encouraged the participants to wear the device visibly and to readily mention the EAR in conversations with others; this process ensured the confidentiality of other workers' utterances.

Analysis: The snippets of ambient sounds were transcribed verbatim by a member of the research team. Following this, a trained research officer coded the acoustically detectable features of supervisors' moment-to-moment behaviors, social environments, and conversations. This coding was conducted using thematic analysis (Miles & Huberman, 1994). We used open coding, whereby the conversations were reviewed and fragments of dialog were identified based on fit within each of the communication categories. That is, dialog related to productivity and efficiency elements of the work-role task were coded as *task-related c*ommunication; dialog related to the core safety activities that need to be carried out by individuals to maintain workplace safety were coded as *safety-related* communication and; dialog that reflected upon the social context of the workplace were coded as *relationship-related* communication.

Categorization of the data were facilitated through a process of constant comparison whereby themes within each communication category were closely scrutinized for similarities and differences with themes in the other categories. For example, four themes were identified as mutually exclusive within the category of task communication (i.e., productivity, efficiency, workflow, and human resources). The final list of themes within each category were verified by a second analyst with any differences (<10%) in themes reached through consensus.

3. Results

3.1. Descriptive data

Table 1 presents an overview of the data collected. The total number of files recorded over the data-collection period was 660. The participants were encouraged to wear the device as much as possible. However, they were advised that they could turn off the device if they perceived the situation was not suitable to be recorded (i.e., confidential meetings). As a result, the percentage of all files recorded ranged from 17% to 100%. From the files recorded, the number of files containing voice ranged from 19% to 74%. These data were used to address the objectives of this study.

3.2. Analysis

The first objective of this study was to identify communication in the workplace and classify them into three categories, namely task communication, relationship-related communication, and safety-related communication. Examples of all three types of communication were identified. Table 2 presents a definition of the different communications identified in this study, and Table 3 presents example quotes for each category of communication.

The second aim of this project was to assess the frequency of task communication compared with relationship and safety-related communication. Table 4 presents an overview of the frequency of the utterances based on communication type and category. The results show that the majority of communication were task-related (58%). In comparison, relationship-related communication was identified in 10% of the utterances and safety-related communication in only 2.9% of the conversations (i.e., 29.3% of utterances included 3rd party conversation and/or no speech was recorded).

Productivity communication (28.6%) was the most frequently recorded type of task communication, and this was followed by

Table 1
Number and percentage of files recorded.

	Number of files recorded	% of ALL files recorded*	Number of files containing voice	% of voice files recorded
Supervisor1	274	42%	89	32%
Supervisor2	137	21%	102	74%
Supervisor3	660	100%	267	40%
Supervisor4	112	17%	21	19%
Supervisor5	303	46%	140	46%

Table 2
Definitions of communication.

Communication type	Category	Definition of discussions
Task	Productivity	Conduct of work-role tasks (e.g., setting up for a work experiment)
	Efficiency	Physical surroundings that support the conduct of work-role tasks (e.g., booking a room)
	Workflow	Factors that facilitate the operation of work-tasks (e.g., time-tabling and work meetings)
	Human resources	Administration of work-tasks (e.g., work-role expectations and performance progress)
Relationship-related	Greetings	Acknowledgment of co-workers
	Personal discussions	Life outside the work context (e.g., activities on the weekend, children)
	Workplace relations	Landscape of the workplace culture (e.g., staff politics)
Safety-related	Workplace safety	Safety in the conduct of work-role tasks (e.g. wearing safety goggles)

Table 3
Examples of communication.

Communication type	Category	Quotes
Task	Productivity	*"you can probably even put them [vials] with those, or you can put them with the contaminated waste, yeah."*
		"now we've got two serum free medias, so it will be interesting to see whether four of them are dead ducks"
	Efficiency	*"So Tuesday next week, ummm, 1:30, if we could have a room somewhere"*
		"... because that's, it's much easier for me to do that [picking up a work vehicle."
	Workflow	*"…I've discussed it with you and we'll come to a mutually agreeable time, ok?"*
		"…make sure she takes the time to explain, on the board, exactly what she's testing."
	Human resources	*"I still haven't got a approval for a new staff member, so she still hasn't started."*
		"It's a lot easier to get into those levels and positions"
Relationship-related	Greetings	*"Hi guys!"*
		"G'day"
	Personal discussions	*"That's alright, 'cos I hate [name of AFL team], I don't mind [name of AFL team] but I hate [name of AFL team]. And I hate [name of AFL player], I can't stand him, he's real slime."*
	Workplace relations	*"Oh, I get angry at that [job positions]. It's not fair, it's not right."*
		"Does [colleague] go to congresses overseas?"
Safety-related	Workplace safety	*"Here's your safety glasses, lab coat,"*
		"We need to bring a few safety glasses to her"

Table 4
Frequency and percentage of recording based on communication type and category.

Communication type	Category	Frequency	Percentage
Task	Productivity	177	28.6%
	Efficiency	10	1.6%
	Workflow	148	23.9%
	Human resources	28	4.5%
	TOTAL	363	58.7%
Relationship-related	Greetings	16	2.6%
	Personal discussions	34	5.5%
	Workplace relations	13	2.1
	TOTAL	63	10.2%
Safety-related	Workplace safety	18	2.9%
	TOTAL	18	2.9%
	TOTAL	444	71.8%*

* 29.3% of utterances included 3rd party conversation and/or no speech.

conversations regarding workflow (23.9%). In the category of relationship-related communication, the majority of the dialog related to "life outside the workplace'" (i.e., personal discussions, 5.5%). Only a small percentage of recordings were identified as safety-based communication (2.9%).

4. Discussion

This research explored communication practices in the workplace by defining the type and frequency of communications. This objective was achieved through periodically recording brief snippets of ambient (acoustic) sounds in the workplace environment of supervisors, using an iEAR. This research is unique in that communication relevant to safety has typically been assessed through self-report methods (e.g., Cigularov et al., 2010; Hofmann & Morgeson, 1999) which has limited understanding of how the behaviors operate in practice. This information is important as the results of this research can be used to encourage the adoption of a Behavior-Based Safety (BBS) approach to safety management within the workplace.

The literature has well established that communication in the workplace consists of dialog related to work-role tasks and safety compliance (Geller, 1991; Newnam et al., 2012; Zohar, 2002; Zohar & Polacheck, 2014). However, this is the first study to define a third element of communication that captures the broader social environment. That is, we identified three different types of relationship-related communication, including greetings, life outside work discussions, and discussions relating to workplace relations. It is argued that relationship-related communication represents an element of the social exchange within the workplace and a potential avenue whereby managers can go beyond safety and actively invest in the health and wellbeing of their workforce (Mearns, Hope, Ford, and Tetrick, 2010). Based on SET, this investment could be enacted through establishing trust and respect within workplace relations, particularly within the leader-member exchange relationship. In support of this argument, past research identified that employees are more likely to approach their supervisor about safety risks in the workplace (e.g., fatigue) if there is a quality supervisor–worker relationship (Hofmann et al., 2003).

The data collected in this study also allowed us to objectively assess the frequency of task communication compared with relationship and safety-related communication. The results showed that more than 50% of the utterances were task communication, while the combined frequency of relationship and safety-related communication was identified in only 13% of the utterances recorded. Examples of task communication included productivity, efficiency, workflow, and human resources. Safety-based communication was the least communicated dialog. These findings suggest that BBS training could be an effective strategy within the organization participating in this study. This training could focus on modifying the verbal exchanges of supervisors in the workplace to increase safety-related communication in their exchanges with their employees. Previous research has identified this approach to safety management as effective in encouraging safety behavior, and promoting a safe and healthy workplace (Newnam et al., 2012; Zohar, 2002; Zohar & Polacheck, 2014).

These results offer recommendations for future research to explore workers' perceptions of safety leadership styles and the incentive to engage in safe working practices. Although "reactive" approaches to safety management, such as learning from safety incidents (e.g., rewarding safe working behavior; Griffin & Talati, 2019) and reinforcing corrective actions is considered an effective form of safety leadership, safety leadership is likely to be optimized if there are also a focus on practices, such as safety-related communication, that promote a culture where health and wellbeing of the workforce is at the forefront of safety efforts. Such efforts have been advocated within BBS approaches (see Geller, 2000). In the absence of more "proactive" safety leadership styles, it is likely that employees perceive a workplace environment that promotes efficiency through "getting the job done" as opposed to increasing productivity through investing in employee health and wellbeing.

4.1. Recommendations

The unique contribution of this research was that relationship-related communication was identified as a distinct form of communication, separate from communication regarding compliance with safety policies and procedures and task-related practices. This finding provides preliminary support for the development of an OHS assessment tool that goes beyond mandatory requirements guided by OHS laws and regulations (e.g., communication regarding the appropriate use of safety equipment), and incorporates indicators focused on specific communication practices. This recommendation would align with current government priorities (e.g., Australia) to develop a set of indicators that can be used to benchmark within and across industry to actively improve OHS.

The findings of this study provide opportunities to further research in workplace safety and communication. First, the EAR could be used to evaluate if modifying particularly types of communication (i.e., safety-related and relationship-related) leads to improvement in safety outcomes. This research could also explore if the frequency of trade-offs of task-related communication over safety-related and relationship-related communication has a negative impact on safety behavior in the workplace.

4.2. Limitations

Although this research presented a unique method for exploring interpersonal communication in the workplace, certain limitations of the study need to be acknowledged. First, this research had a small sample size. Due to the sensitive nature of this method, recruitment was challenging. We found that senior-level management was unwilling to support the recording of conversations in the workplace, supervisors were uncomfortable with being recorded, or staff working in the same areas as supervisors were unwilling to (verbally) consent to the process. Objectively monitoring communication in the workplace presents a positive direction forward in advancing countermeasures in this field; thus, future research should identify complementary approaches to recruitment using the iEAR. For example, one possible approach could be monitoring conversation at set times of the day. Future research could also validate the communication of supervisors through examining workers perceptions of the meaning or objective of the communication.

It should also be noted that there was some disparity in the number of files containing voice recordings, with the number of recordings obtained from supervisors ranging from 21 to 267. To illustrate this issue, supervisor #3 represented 30% of the total number of files containing voice recordings. This means that the results identified in this study may be biased by the communication practices of this supervisor. A more homogenous number of recordings would be needed to ensure a greater representation of communication practices.

Second, this research identified only brief snippets of conversation (i.e., a sampling rate of 20% based on a recording period of 30 s every three minutes). Although the iEAR method has been established as a valid method of examining workplace interactions (Holleran, Whitehead, Schmader, & Mehl, 2011), and in populations with low base rate behaviors (see Mehl, Robbins, & Groque Deters, 2012), it is possible that we did not capture an accurate snapshot of communication in this organization. For example, safety communication may have occurred at times when recordings did not take place (e.g., before or after leaving the office, confidential meetings) or workers misinterpreted the communication as it was intended by the supervisor.

Furthermore, the contextual nature of the communications was not captured using the EAR. Future research could overcome this limitation with a mixed-method approach, using ethnography to capture the context of the communication (Hughes, O'brien, Rodden, & Rouncefield, 1996). Ethnography, involving close observation of individuals, their work and their interrelationships, would provide an in-depth analysis of communication within the work environment. This research could focus on monitoring specific aspects of communication, such as the role of feedback (e.g., supportive and corrective feedback) as a communication tool in encouraging safe working practices.

5. Conclusion

This research provided a preliminary exploration of certain interpersonal communication practices in the workplace by defining type and frequency of communications. Through objectively recording brief snippets of interpersonal conversation in the daily working lives of supervisors, we were able to identify examples of task-related communication and safety-related communication, as well as a third element of communication that captures the broader social environment, namely relationship-related communication. This study also found that the majority of the communication recorded in the organization recruited for this study was task-related communication compared with relationship-related and safety-related communication. The results of this study provide avenues for future research in workplace safety communication.

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