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Ralf Buckley

International Centre for Ecotourism Research, Griffith University, Australia

Ralf Buckley
International Centre for Ecotourism Research
Griffith University, Gold Coast, Qld, Australia 9726
Telephone: +61.7.55528675
Fax: +61.7.55528895
E-mail: r.buckley@griffith.edu.au

Ralf Buckley is Director of the International Centre for Ecotourism Research (Email <r.buckley@griffith.edu.au>), and Research Director of the Climate Response Program at Griffith University in Australia. His books include Adventure Tourism Management, Ecotourism Principles and Practices (2009), Climate Response (2007), Adventure Tourism (2006), Environmental Impacts of Ecotourism (2004) and Case Studies in Ecotourism (2003).

Abstract:

Critical incidents involving communications on health and safety issues amongst staff and clients are examined from 388 days of participant observations in 63 non-motorised waterborne adventure tours in 19 countries. Good communications were critical in maintaining client satisfaction and rescuing them from life-threatening dangers; poor communications put participants at unnecessary risk or led to dissatisfaction. Communications codes, carriers and cultural contexts were all essential aspects. Communications are an important component of adventure tourism products, and deserve further research attention. Adventure tourism provides opportunities to test communications theories under adverse circumstances.

Keywords: workplace, safety, risk, discourse, language.

INTRODUCTION

Communications is a complex phenomenon, and communications involving tourists have been examined from many different perspectives. This contribution aims to extend our understanding by focusing on the role of operational workplace health and safety communications within retail adventure tourism products. Tourism is a commercial industry as well as a component of individual human behaviour and human social frameworks. The perspective presented here is that communications are an essential core component of the products which this industry sells and tourists buy, and that this aspect of tourism communications therefore deserves greater research attention than it has attracted historically. Additionally, communications is an information transfer process as well as a social phenomenon, and the aspect examined here involves the fundamental interplay of code and carrier, with culture and context as mediators rather than the primary focus. Communications during critical health and safety incidents in commercial adventure tours provide opportunities for powerful tests of human communications theories at a fundamental level, stripped of most nuances.

For commercial adventure tour operators, the outdoors is both legally and operationally an industrial workplace, where health and safety issues and communications are as important as in any other sector. Indeed, safety and security are important throughout the entire tourism industry. Workplace communications have been studied extensively in many industries and professions, but rather little in tourism. Safety is of particular concern in activities involving risk of injury, and hygiene in activities involving risk of illness. Both of these apply for many commercial adventure tourism products, especially multi-day tours involving inexperienced clients undertaking unfamiliar activities in remote regions. Here, therefore, I examine the roles and significance of operational communications on health and safety issues for one particular adventure tourism subsector, namely those products based on rafting, kayaking and seakayaking. These activities are referred to collectively as paddlesports. The general operational features of this particular subsector have been outlined by Buckley (2006, 2009).

The data for this analysis are derived from 388 days of records and experiences from 63 different paddlesports tour products. This is 40 times more than the most extensive previous analysis of communications in whitewater rafting, that of Arnould, Price, and Otnes (1999). Only a very small subset of these data can be presented in any detail in a single publication. The analysis is therefore carried out in two successive steps. The first describes the overall patterns, using all the data but at a coarse resolution. The second focuses on communications in a set of 20 individual and critical health and safety incidents. These represent only a very small proportion of the total, around 0.3%. It is this small component, however, which best illustrates the critical operational role of these communications in commercial tour products; where the most reliable data are available; and which provides practical tests of particular aspects of communications theory.

To establish the theoretical context for these analyses, relevant previous literature is first reviewed in three successively more detailed stages. The broad context of communications studies is considered briefly in order to illustrate the diversity of approaches applied. Publications on communications in tourism are reviewed in more detail to illustrate that relevant research, both in tourism communications per se and in related disciplines, has concentrated in particular subfields. Finally, the literature on adventure tourism specifically is examined to determine how, and to what degree, it includes considerations of communications.

COMMUNICATIONS THEORIES AND TOURISM

Communications Theories

Communications theory is a complex field, and there is no one accepted approach which we can apply in tourism (Slack, 2006). The most basic functional approach to individual communications (Lasswell, 1948) is to consider them as transfers of information, either deliberate or involuntary. Information may originate from single or multiple sources and be transferred to single or multiple recipients, which may be humans, other living creatures, or automated devices. Information received is not necessarily identical to that transmitted. Two particular aspects of this process have received particular theoretical attention. The first is the means of information

transfer, both physical transmission (carrier); and information included (signal). Information can only be received if carrier and signal are within the recipient's detection capabilities; and in addition, if the recipient has a consistent mechanism to discriminate between different signals in order to respond to them in different ways (code). The second aspect is the social context for codes. To transfer information, source and recipient must use the same code, which may be very complex; and the recipient must possess the code before the signal is transmitted. For human communications, sharing of code depends on shared context and culture. In conversation, information received may depend on words, grammar, accent, intonation, volume, tone, timbre, speed, and so on; on simultaneous visual signals such as expressions, posture, movements and gestures, relative positions, clothing, makeup, hairstyle and accessories; and on simultaneous tactile or olfactory signals. The codes which the recipients use to obtain information from these multiple simultaneous signals may also include contextual components such as location, others present, prior relationships, and history of past events including previous communications.

Different communication theorists have focused on different components of these overall systems. In the social sciences, there has been a strong focus on aspects of social and cultural context, such as language, gender, age, emotions, and social hierarchies. If source and recipient have highly congruent contexts and codes, a large amount of information can be transmitted through a very simple signal: the tremor of an eyelid across a crowded room, for example. Where two individuals with very little shared context and code are attempting to communicate, however, the opposite occurs. When two researchers from different countries or academic disciplines, who speak little of the same language or jargon, are trying to discuss a difficult concept, they must simplify each communication as far as possible to improve the chance that it will be received, and build up a large sequence of reciprocal communications so as to gradually develop a more complex shared code which allows them to communicate successively more complex concepts.

Several recent texts illustrate the enormous range of different social perspectives currently applied in communications theory and research. Fiske (1990) discussed models, meanings, signs, codes, symbols, semiotics, structuralism, empiricism and

ideology. Each of the 27 contributors to Shepherd, John and Striphas (2006) argued respectively for communication to be viewed in different ways. Berger (2006), quoting a wide variety of contemporary and historical authors and analysts, suggested that communications may be viewed from at least 50 different perspectives, including signs or structure, codes or culture, art or metaphor, dialog or narrative, fashion or fairy tales, myths or music, postmodernism or psychoanalysis.

Communications in Tourism Studies

Tourism studies and communications studies are both situated largely within the social sciences and share some of the same means of enquiry. The interactions between these two fields of research have been examined at a broad level in well-known works such as those of MacCannell (1976, 1999), Cohen and Cooper (1986), Bruner (1989, 2005), Dann (1996) and Jaworski and Pritchard (2005). The main focus in all of that work has been on the subtle and complex social, cultural and sociolinguistic aspects for tourism-related communications, rather than the more fundamental aspects of carrier, code and context. There is a subtheme on tourism as a set of performances (Edensor, 2001; Noy, 2008), and another on the role of tourism experiences in influencing tourists' perceptions of their own identities (McCabe & Stokoe, 2004; Noy, 2004). All of this research treats tourism more as a social phenomenon than a commercial industry, and examines links between tourism and communications as part of the social fabrics in different parts of the world.

Within the literature on tourism as a commercial industry, communications have been considered mostly within the literatures of marketing (Buckley & Araujo, 1997; Clarke, 1996; Dann, 1996; Pitt, Opoku, Hultman, Abratt, & Spyropoulou, 2007; Wu, Wei, & Chen, 2008) and interpretation (Ap & Wong, 2001; Ballantyne, 2007; Moscardo, 1999; Pearce, 1984; Reisinger & Steiner, 2006; Ryan & Dewar, 1995; Salazar, 2005). The literature on service quality mentions communication under "relational quality" (Tsang & Ap, 2007). Many farm tourism operators in New Zealand, for example, "saw the issue of communication as central to the success of their operation" (Pearce, 1990, p. 348). There are also smaller literatures on communications during tourism crises (Henderson, 2003; Ritchie, 2004); amongst tourism planning stakeholders (Beesley, 2005; Bruyere, Beh, & Lelengula, 2008;

Clarke, 1996); and amongst tourists and their relatives (Murphy, 2001; Noy, 2004; Pearce & Foster, 2007; Riley, 1988; Swarbrooke, Beard, Leckie, & Pomfret, 2003; White & White, 2007). Analyses of tourism research such as those by Xiao and Smith (2006a,b) do not identify communications as a significant research topic; and according to Ribeiro (2009), the literature of tourism semiotics is thin on either scientific methods or managerial viewpoints. In particular, even though interpersonal workplace communications have been studied extensively in other industries and professions (Goffman, 2005; Holmes & Stubbe, 2003), including issues such as age (McCann & Giles, 2007), gender (Domagalski & Steelman, 2007) and emotion (Miller, 2007), these aspects have received rather little attention in tourism research.

In adventure tourism specifically, texts such as Swarbrooke et al. (2003) and Pigram and Jenkins (2006) make little mention of communications, and nor do recent contributions such as Buckley (2007) or Williams and Soutar (2009). Descriptions of adventure guiding such as Beedie (2003), Borrie and Roggenbuck (2001), Fluker and Turner (2000) and Pomfret (2005) mention direct communications only in passing. Health and safety issues were mentioned for some of the paddlesports case studies reported by Buckley (2006), and Cater (2006) summarised a number of safety failures in the commercial raft tour sector, but neither focussed specifically on communications.

The role of communications in adventure tourism has been addressed from an ethnographic perspective, with particular reference to the emotional aspects of interactions between guides and clients, by a series of authors including Arnould and Price (1993), Arnould et al. (1999), Jonas (1999), Holyfield (1999) and Sharpe (2005). Interestingly, the majority of these studies have focused specifically on whitewater rafting. Based on 10 days' observations of commercial rafting tours on the Green and Yampa Rivers in the Colorado system, Arnould and Price (1993) and Arnould et al. (1999, p. 38) proposed that these experiences could be seen as a "magical consumption system" which "mirrors traditional magical systems in intent and effect" and involves respect, ritual and rhetoric. A large part of their proposal relates to communications, including ritual rules: for example, that the word "wind" should never be mentioned. These two rivers are mostly "float" trips which have long stretches without significant rapids. As one of the guides quoted by Arnould et

al. (1999, p. 48) said of the principal rapid on the Yampa: ‘‘it’s like 30 seconds . . . [compared to] five days in this canyon’’. Even so, however, these authors noted that ‘‘customer comments about the rapids echo themes of existential and physical challenge, excitement, difficulty and anticipation’’.

Similar themes appear in the work by Sharpe (2005) on emotional labour by adventure tour guides. Emotional labour was defined as ‘‘organisationally sanctioned emotions in interactions with clients’’, and the display of emotion, real or simulated, is a significant component of communications between guides and clients. Sharpe (2005, p. 33) cited previous work by Goffman (2005, p. 237) referring to ‘‘fateful action’’, defined as actions which are both ‘‘problematic and consequential’’. Such actions are at the heart of many adventure experiences. Jonas (1999) noted that the job of whitewater raft guides involves ‘‘making and facing danger’’. Based on 10 days experience as a trainee guide on the Chattooga River and 47 interviews, including an occasion when she fell out in one of the major rapids, Holyfield (1999) described certain aspects of communications between commercial guides and clients, and noted that guides are expected to display both bravery and calm.

Each of these studies indicated that both verbal and non-verbal communications are important in shaping clients’ experiences, and that clients’ expectations include the types of behaviours adopted by guides. None of them, however, addressed the role of direct communications in health and safety. The key aim of this contribution, therefore, is to test whether, and examine how, such health and safety communications may be critical to the successful operations of a suite of commercial adventure tour products.

Methods

The methodological approach adopted was participant observation (de Walt & de Walt, 2002; Spradley, 1980), focussing on critical incidents (Flanagan, 1954; Moscardo, Taverner, & Woods, 2006). The 63 tours studied took place in 19 different countries and ranged from a day to a month in duration, from tropical to High Arctic latitudes, from beginner to expert clients, and from US\$50 to over \$5,000 in price. Most participants were 20–50 years old, with an equal gender balance and a variety of

ethnic, socioeconomic, linguistic and cultural backgrounds. Some of the products were seakayak tours, either self-supported or in a few cases with boat support. Others were river raft or kayak tours, with the raft tours using either oar or paddle rafts (Buckley, 2006), and in most cases also accompanied by at least one safety kayaker. Some of them were in cold, remote areas with high levels of real risk; others in warm, accessible areas where real risks were lower.

A total of 388 days' operations were observed. Bearing in mind that a critical safety incident, such as a client being thrown from a raft and trapped underwater, can occur in a single second, it is worth noting that this comprises over 15 million seconds of observations. It compares with a total of 10 days' observations on two rivers by Arnould et al. (1999), and 10 days on one river by Holyfield (1999). A set of 20 incidents from 11 countries are reported here, illustrating a range of events when communications were critical to health and safety. These events, summarised in Table 1, make up <0.3% of the total period observed, i.e. <45,000 seconds. For reputable adventure tour operators, critical incidents are relatively rare. During those incidents, however, health and safety were at significant and in some cases immediate risk. The results reported here examine the role of communications in such situations. Table 1 also shows generally applicable parameters such as water temperature and remoteness, which influence the overall degree of risk associated with the tour products concerned (Buckley, 2007). Warm-water rivers pose no immediate threats from hypothermia. Immersion in cold-water rivers can produce hypothermia within a few minutes. Very cold rivers are only a degree or two above freezing, and produce immediate cold shock on immersion, and a severe risk of hypothermia without very prompt rescue. Arctic ocean waters, being salt, may be up to 4 degrees below zero. For the river-based cases, all save the Brazilian case incorporated whitewater rapids at Class IV or Class V on the five-class international scale of difficulty (Buckley, 2006). All the examples used were multi-day tours with overnight accommodation in river-bank or ocean-shore campsites. Client-to-guide ratios ranged from <1:1 up to 6:1 for whitewater river tours, and up to 11:1 for ocean seakayak tours.

For the majority of the raft tours studied, the author took part as safety kayaker. This is a particularly useful position from which to conduct research observations. Safety kayakers do not have the routine operational responsibilities and authority of guides,

but are nonetheless treated by the clients as members of the staff. Their key role is to assist in river rescues, if rafts flip or clients or guides fall out. They are thus expected to watch out continually for safety aspects and incipient risks. They also provide a backup to the guides, e.g. in explaining health and safety information to clients who did not fully take in the instructions at the initial briefings. In other tours, the author was present as a kayaking client, but recognised by guides and other clients as relatively experienced, albeit not particularly skilled. In either capacity, there were excellent opportunities to observe and take part both in health and safety communications and in more general conversation.

The author was thus present in person at each of these critical incidents, and can report relevant evidence from direct observation and experience. For the particular incidents presented here, there are also documented reports made either at the time or shortly thereafter, using a variety of mechanisms. Several of these incidents were documented using more than one such approach. The mechanisms include: high-definition videography for subsequent television broadcasting (at least 3 incidents); still photography and low-definition video later distributed on DVD (at least 3); articles, most of them illustrated, in newspapers and magazines (at least 6); written descriptions in journals and other materials produced by the tour operators and/or participants (at least 3); general descriptions in academic books (at least 10); descriptions and/or illustrations on websites, including both tour operator websites and social utility sites such as Facebook _ (at least 3); and participant notebooks, journals and private correspondence (at least 10). Only 19 of the overall set of 63 tours observed are represented in the set of 20 critical incidents reported here. The set reported was selected because it includes a variety of issues, circumstances and countries, and because the incidents concerned were recorded in some way.

CRITICAL HEALTH AND SAFETY COMMUNICATIONS

General Communications Context

Guides and clients communicated with each other continually throughout these tours. Only a very small proportion of these communications, <1% of the total time, relate to critical health and safety issues. In most tours, the majority of conversation is

social, and does not affect operations except as it influences group cohesion. This type of communication corresponds to “small talk” (Coupland, 2000) or “idle talk” in the Heideggerian sense. Against this social background, there is a much smaller set of operational communications which are important for day-to-day routine, but not critical in the sense of those presented here. Most far-reaching in their effects are communications between guides, especially those involving operational decisions. Second are communications from guides to clients, especially those involving instructions. Third are those from clients to guides, principally involving enquiries. And finally there are communications amongst clients, largely seeking confirmation or clarification of communications with guides (Table 2).

The communications context for the critical health and safety incidents described here may be summarised as follows. Most tours of this type include an initial safety briefing, commonly combined with basic paddling instructions for those clients unfamiliar with the craft concerned (Holyfield, 1999). These initial briefings cover topics such as: the proper use of helmets and lifejackets; when and why to wear shoes; how to hold on to rafts and how to help maintain stability; safe swimming positions to adopt if one falls out; and what to do during a rescue either by a raft, by a safety kayak, or using a thrown rope. At particularly risky points in the tour there may also be more specific safety briefings. For example, the guides may halt the rafts at the side of a river in order to inspect a rapid before running it, and to point out particular hazards and give specific instructions in case a raft overturns or a client falls out. Similarly, in a seakayak tour the guides may group up the kayaks temporarily, in order to give specific instructions for manoeuvres such as landing on a beach through surf. There is also a standard set of routine operational hand, paddle and whistle signals between guides, for safe navigation in difficult sections.

Most multi-day raft, kayak and seakayak tours involve camping on small river or ocean beaches, and in some areas these same campsites are used repeatedly by many different tour groups. In addition, participants in these commercial tour groups commonly share camp crockery, cutlery and cooking utensils. Sanitation and hygiene are thus key operational issues, both to prevent participants falling ill, and to maintain the aesthetic appearance of campsites for customer satisfaction. Paddlesports tour operators worldwide have therefore developed standard practices and protocols for:

constructing and using camp toilets; washing and sterilising hands and dishes; separating and storing different categories of garbage; and keeping campsites clean (Buckley, 2002). None of these are complicated, but they are new to many clients, and they need to be followed quite precisely from the very beginning of the tour. Guides must communicate relevant information in ways which minimise embarrassment for clients but which are unambiguous. Clients often discuss these procedures with each other for further clarification and explanation.

Communications During Critical Incidents

The circumstances surrounding each of the 20 critical incidents listed in Table 1 are outlined below, and the key features of the communications in each incident are summarised in Table 3. Incident 1 occurred on a cold-water river where the rafts and kayaks had regrouped in a small pool above a runnable but potentially deadly rapid.

A kayaking client miscalculated water flow and was washed under a raft, pinned against a rock, and had to bail out of the kayak, floating to the surface immediately above the rapid. The guides performed a very quick and technically competent rescue, in seconds, using thrown safety lines. The lead guide said quietly: “I hope you realise what a neat piece of bagging [i.e. rope throwing] that was.” This was a very effective communication, leading the client to pay greater attention to safety on the rest of the tour, but without causing undue embarrassment or alarm.

Incident 2 took place on a 12-day expeditionary first descent of a high-volume river with several large rapids. At the most dangerous of these, most of the kayakers portaged the rapid. One client kayaker ran the rapid successfully and waited below for safety, whilst one of the rafts attempted a run with one guide and one client. The raft was thrown high in the air and capsized, and the occupants were thrown clear and washed down the rapid. The guide washed through in a more dangerous position, and the kayaker first pulled him into calmer water, and turned to go back for the raft client. The guide, however, gasped: “No! Get me to the bank!” The kayaker shouted to the raft client: “Are you okay?” The client replied calmly, so the kayaker took the guide to the bank before returning. This provides an example of critical communications in an unusual situation, where a client was not only rescuing a guide, but rescuing a guide before a client.

Incident 3 occurred on a trip with Chinese, Japanese and English-speaking participants, where communications had to be translated by the few multi-lingual participants. Two clients fell out of a raft and were rescued by a safety kayaker. The clients did not immediately understand the kayaker's spoken instructions, so the rescue was slow. The procedure had been explained during an earlier safety briefing, but as confirmed by a Chinese-language magazine article published subsequently, it had not been understood.

Incident 4 involved a technically complex rescue of a capsized raft caught in an eddy against a cliff immediately below a large rapid, as dusk approached. The position was such that other rafts could not reach it, but only kayaks. Three clients, two guides and one kayaker were involved. Some spoke only Chinese, some only English, and two were fluent in both. Communications, including translations, were critical firstly to alert the safety kayaker of the capsize, secondly to free and reassure a client who was trapped partially under the raft, and thirdly for the technical mechanics of the rescue, which required a quadruple-purchase rope-and-pulley lift from a rock crag, with coordinated efforts by 5 of the 6 people. It was after dark when the rescue was completed, by the light of a floodlight from across the river.

Incident 5 occurred on a two-week commercial expeditionary first descent of a high-volume, cold-water river with some severe rapids and terrain, in a cold and very remote area. After a series of difficult rapids requiring time-consuming portages, the group halted above a long and dangerous rapid with active rockfalls onto the only potential portage route. An attempt to explore downstream on foot was thwarted by sheer canyon walls. In fact, a later expedition found dangerous and inescapable rapids downstream, which would have placed the group in life-threatening circumstances if it had continued. After discussion, the trip leader decided to abort the expedition and retreat to the nearest roadhead overland, which took six days. The participants were disappointed, but trusted the expedition leader's judgment, and the group as a whole was able to extract itself safely. Good communications between the leader and the rest of the group, in three languages, were critical.

In Incident 6, the clients were inexperienced, and there were five paddle rafts but only one safety kayaker. The group portaged the rafts around the upper half of the most difficult rapid, and ran the lower half. The rapid ended in a large wave above a wide circulating pool, neither of them deadly but sufficient to capsize the rafts and spill the clients into the pool. They were swept in circles, some dropped their paddles, and several were gasping rather desperately for breath. Despite this, the rafts followed each other down the rapid without allowing time for previous rafts to be rescued. Every raft capsized, and the safety kayaker had to rescue 19 individual clients, some of them severely distressed, as well as a number of paddles. The guides were overconfident and incautious, and had no communication system, so each guide made an independent unilateral decision to start their run, with no overall safety strategy.

Incidents 7 and 8 involved risks associated with heat and cold. Incident 7 took place on a high-volume river with a warm climate but cold water. A raft capsized, and a kayaker took one of the participants to the river bank, but was unable to see whether the section downstream was safe. He therefore waited for instructions from the trip leader, forgetting that the cold water itself posed a danger to the swimmer. The leader shouted urgently to get the swimmer out of the water, and the rescue was completed by a raft at the riverbank downstream. Incident 8 occurred on a raft trip in Siberia, where all guides and clients except two were Russian, and few spoke any other language. At one campsite the guides built a banya, a steam bath system consisting of a pile of rocks heated for several hours by a large fire, and covered by a heavy double-skin tent sealed down onto sand. The guides and clients climbed naked into the tent and whipped themselves with wet birch branches, diving into the river when the steam heat became intolerable. The space between tent wall and the rocks was very narrow, and the rocks were large and hot enough to inflict extremely severe burns if anyone fell onto them, e.g. whilst squeezing past others to get out. To avoid such injury it was critical for participants to communicate any intention to move - either in Russian or failing that, in sign language.

Incidents 9 and 10 took place during seakayak tours in the High Arctic. In Incident 9, two single guide kayaks and two double client kayaks were crossing an inlet on a calm sunny day. Risks were low, especially since participants were wearing drysuits. One of the client kayaks was dragging behind, and the other paddled a little ahead and

waited at a small iceberg. Instead of simply sending the second guide to catch up with them, the lead guide fired a marine flare to signal an urgent halt. The group paddled together to the nearby shore, and the lead guide then berated the clients, to the considerable surprise of the rest of the group. As it happened, these clients were carrying the lead guide's rifle, since it would not fit in his own kayak. The lead guide said angrily: "Give me my rifle, and you can paddle off on your own." The clients were confused and muttered amongst themselves. One said: "I think he is saying" but faded to silence. The lead guide said threateningly: "Don't go there with me!" The second guide raised his eyebrows, and the clients were silent. This was very poor communication, highly inappropriate, and a source of considerable client dissatisfaction with no gain in safety. Incident 10 provides a strong contrast. It occurred on a High Arctic tour involving seakayaking from an expedition cruise ship. There were 10 inexperienced clients in five double kayaks, and one guide and one experienced client in single kayaks. The guide handed this last client a small waterproof GPS unit and asked: "Can you enter a waypoint every time we stop or change course? If that fog closes in I'll need to radio a course to the ship so they can come and pick us up."

Incidents 11, 12 and 13 involved encounters with aquatic wildlife. In Incident 11, the guides lead a group of inexperienced seakayakers into a bay with a pod of orcas or killer whales. Some of the whales, which are significantly larger than the kayaks, swam very close and in a few cases underneath the kayaks, occasionally emitting bubbles which caused the kayaks to shake in the water. The clients were greatly impressed and some were frightened. The guides were able to reassure them successfully and the incident was the highlight of the tour. In Incident 12, a High Arctic seakayak tour group encountered narwhal, the tour's key attraction and advertising icon. One kayak with two clients paddled quietly towards the narwhal to see them at close range. When a narwhal started to surface next to the kayak, however, one client panicked and suddenly began to paddle backwards. This scared the narwhal into a crash dive, to the great disappointment of the other client. This could have been avoided through better communications between the clients beforehand. Incident 13 involved a significantly higher actual risk, associated with piranha, caiman and giant predatory catfish. It took place on a small tributary of the Amazon, accessed by river boat and then in a dugout canoe. The area was

uninhabited because it was above a set of rapids, and to get above the rapids required wading for about 1 km, pushing a dugout canoe. The river supports large populations of piranha and in most areas it would be very dangerous to enter the water. The local guide was able to communicate with the clients, in English, that it was safe to walk in shallow rapids though not in deep still water. The group was thus able to navigate successfully to the wilderness stretch upstream of the rapids.

Incidents 14, 15 and 16 all involved discovery of corpses in the rivers concerned. In incident 14, a group of inexperienced clients became excited and concerned when they discovered a bloated human corpse floating in the river after the annual monsoon. The guides reassured them that the tour's drinking water treatment was adequate to prevent health risks. In Incident 15, a much more experienced group found a fully-clothed human skeleton in the water, but discussed it only in terms of cultural differences and photo opportunities. In Incident 16, a kayak group found a dead dog in the same pool where they had been taking drinking water. This led to some discussion of health risk, but in fact nobody fell ill. Incidents 17 and 18 involved the need to communicate non-standard toilet procedures designed for the particular environments concerned. In one case the instructions were straightforward but unexpected, requiring interpretation and reinforcement. In the other case the procedure recommended involved a certain degree of technical complexity, causing some embarrassment. In each case, however, the guides were able to explain the procedures and reasons in a straightforward but light-hearted way, and the clients accepted both.

Incidents 19 and 20 involved communications amongst guides and clients with regard to campsite litter, especially cigarette butts. One case involved a large international group, most of them inexperienced backpackers, on a routine multi-day raft tour in a developing country. Even though the company had a no-litter policy, the guides gave no relevant instructions, and both guides and clients simply dropped butts onto the ground at campsites. This created significant dissatisfaction for non-smoking clients, who picked up the cigarette butts every morning. In the other case, a multilingual but experienced group on an expeditionary raft tour in a developing nation, some clients initially discarded butts, but the other clients discreetly persuaded them not to do so, so client satisfaction was greatly improved.

DISCUSSION AND CONCLUSIONS

The data reported here have implications both for the analysis of tourism and the analysis of communications. These implications are examined below in successively greater breadth. The closest previous analogues are those of Arnould et al. (1999) and Holyfield (1999). The former found that guides use a formalised set of behaviours, including communications, to create the client experience. They did not address the direct role of communications in the transfer of health and safety information. The latter described pre-embarkation briefings on routinely repeated single-day trips, and her own emotional response to an inadvertent swim. Sharpe (2005) found that guides who repeated the same tour throughout an entire season became emotionally exhausted. The much larger set of data used here indicates that repetitiveness may be a key component in emotional labour. This deserves further research, since results would be applicable throughout the service industries.

From the perspective of adventure tourism product construction (Buckley, 2006, 2007) these results indicate that operational health and safety communications are indeed a key component of commercial retail tour products. Adventure tours are temporary assemblages of strangers who must carry out coordinated actions, including unfamiliar procedures, under circumstances which may involve risks to life, limb or liver. In such conditions, communication is as critical as equipment or staff. These results could be expanded: by examining other activities; by considering culture, ethnicity, age, gender, socioeconomic background and ideology; or by taking a broader social situations approach (Argyle, Furnham, & Graham, 1981; Pearce, 1990).

From a workplace communications perspective, the data presented here indicate five key issues (Table 3): clarity and comprehension, value and appreciation, language barriers, cultural differences, and communication modes (West, 2007). Guides need to be sure that clients have both (a) understood the technical aspects of what to do, and (b) appreciated the importance of doing so. This is difficult if there are differences in language, in cultural norms, or in experience and attitude to risk (Cater, 2006). Non-verbal demonstrations, role modelling and signals are important, as well

as the spoken word (Buckley & Littlefair, 2007). Instructions from guides to clients involve asymmetries of power (Gibson, 2003), and may contain emotional elements (Beesley, 2005; Shepherd, St. John, & Striphas, 2006; West, 2007).

If guiding is performance which includes simulated emotion, then the clients as audience expect only positive emotions such as enthusiasm and encouragement, “bravery and calm” (Jonas, 1999); not boredom, anger or fear. If a guide displays anxiety or even anger in a situation with fateful consequences, this is accepted since emotional tones provide an additional code to communicate urgency and importance. Negative emotions are inappropriate, however, if the consequences are not fateful or the emotions displayed are disproportionate. Some clients aim to perform as competent amateurs, mimicking the guides. Others perform as helpless. Guides and safety assistants must distinguish clients who are actually in danger but communicate that they are not, from those who are actually not in danger but communicate that they are. For guides, communications reinforce their self-perceptions as having earned a privileged position through experience and learned skills. For clients, some experience discomfort, embarrassment and fear, creating a self-perception that they dislike the outdoors. For most, however, successful navigation of real risks and dangers increases their perceptions of self-worth and capability.

The data presented here reflect several key issues at the most fundamental level of communications theory. Often there are difficulties in transmitting a carrier from source to recipient. The roar of the rapids may drown out human voices; and drops, bends and rocks may obscure the line of sight. Establishing communication relays is therefore critical. Where carriers are weak, intermittent or unreliable, and the consequences of misinterpretation are severe, communication codes must be simple and unambiguous. Connections between code and context are also essential. Emergency signals only convey information because those involved are expecting them. They are not part of the everyday language of the participants. If the participants do not all speak the same language, there may be difficulties in communicating the code which may be needed for later emergencies. These aspects illustrate what Striphas (2006) described as “communication as translation”.

In addition to aspects of carrier, code and context, communications in adventure tourism illustrate more subtle themes of language and culture (Cohen & Cooper, 1986; Dann, 1996). Because of language differences, tour participants may not understand safety briefings; but because of cultural differences they may not say so. Where different groups of participants in the same tour speak different languages, ‘idle talk’ can become divisive rather than cohesive. Guides communicating with clients from other cultures and languages cannot avoid embarrassment by using euphemisms or circumlocutions.

In conclusion, the data presented here demonstrate that even though they make up only a very small proportion of the total time involved, health and safety communications between and amongst guides and clients in commercial adventure tours nonetheless form a critical component of these tour products. Adventure tours also provide a natural laboratory in interpersonal communications, where small groups of people are forced to communicate on unfamiliar topics, in unfamiliar circumstances, over an extended period, only with each other, whether they like each other or not. This provides an analogue for a number of work environments, and could be used to greater advantage for experimental studies in human communications. Adventure tours and similar products are already used as corporate training and teambuilding tools, to give colleagues a chance to practice communications under unfamiliar and stressful situations (Priest, 1997). The study of tourism could surely be enriched by greater application of long-established disciplines such as communications.

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Table 1 Critical Incidents

Case No.	Watercraft	Country	River flow	Water temperature	How remote
1	paddle rafts + 1 kayak	Australia	low	cold	med
2	oar rafts + kayaks	China	high	med	high
3	oar rafts + kayaks	Tibet	high	v. cold	high
4	oar rafts + 1 kayak	China	high	cold	med
5	oar rafts + 3 kayaks	Tibet	high	v. cold	high
6	paddle rafts + 1 kayak	Uganda	high	warm	high
7	oar rafts + kayaks	USA	high	cold	low
8	paddle rafts + 2 kayaks	Russia	med	cold	low
9	seakayaks	Canada	n/a	Arctic	med
10	seakayaks	Norway	n/a	Arctic	high
11	seakayaks	USA	n/a	cold	low
12	seakayaks	Canada	n/a	Arctic	med
13	dugout canoe	Brazil	med	warm	high
14	oar raft + kayak	Nepal	high	warm	med
15	oar raft + kayak	Tibet	high	v. cold	high
16	kayaks	NZ	med	low	low
17	oar rafts	USA	high	cold	med

Case No.	Watercraft	Country	River flow	Water temperature	How remote
18	seakayak	USA	n/a	cold	med
19	paddle raft + kayaks	Nepal	high	warm	med
20	oar raft + kayaks	Tibet	high	v. cold	high

Table 2 Major Subjects of Routine Communications

Subject	Examples	Relative frequency for particular subject			
		guide to guide	guide to client ¹	client to guide ¹	client to client
Relevant to tour					
safety	throw rope, avoid danger	**	***	*	*
logistics	lift boat, carry gear	***	**	*	*
logistics, planned	campsites, stops, day's journey, cooking	***	*	**	**
equipment	expected weather, clothing needs, tents, tarps	*	**	***	**
hygiene	washing, fires, human waste	**	***	*	**
hygiene	don't drop litter, butts	*	***	*	**
hygiene	wash hands, filter water, toilet practice	*	***	**	**
observation	wildlife, rapid	*	***	**	**
relationships, on-tour	existing or new	* ²	*	*	**
NOT ABOUT TOUR					
social	general chatter	*	*	*	***
politics	current events	*	*	*	**
interests	outside the tour	*	**	*	***
relationships, outside tour	status, opinions	*	*	**	**
employment	type of work	*	**	*	**
travel	other than this tour	***	*	*	***

¹communications guide to client communications mostly instructions; client to guide mostly questions. ²refers to public discussion only; much more out of clients' hearing

Table 3 Characteristics of Communications

Cas e No.	Importance	Urgency	Who*	Clarity	Value	Language	Culture	Mode	H& Out
1	very high	immediate	G to C	high	high	same	same	speech	goo
2	high	immediate	G & C	high	high	same	same	speech	goo
3	medium	medium	C to C	low	high	different	different	speech and signs	goo
4	high	high	G & C	medium	high	several	several	speech	goo
5	high	low	G & C	medium	high	several	several	speech	goo
6	high	immediate	G to G	very low	low	same	similar	none	poo
7	high	high	G to G	high	high	same	same	speech	goo
8	high	medium	G & C	low	mixed	several	several	speech or signs	goo
9	low	low	G to C	very low	low	same	same	signal, speech	n/a
10	high	low	G to C	high	high	same	same	speech	goo
11	low	medium	C to G	medium	mediu m	same	same	speech	goo
12	low	medium	C to C	very low	low	same	same	speech	poo
13	high	medium	G to C	high	very high	same	different	speech and signs	goo
14	medium	low	G & C	medium	high	same	several	speech	goo
15	low	low	G & C	medium	low	same	same	speech	goo
16	high	low	G & C	high	high	same	same	speech	goo
17	medium	low	G to C	medium	mediu m	same	same	speech	goo
18	high	low	G to C	medium	mediu m	same	same	speech & signs	goo
19	low	low	G & C	low	low	same	several	speech and	poo

Case No.	Importance	Urgency	Who*	Clarity	Value	Language	Culture	Mode	H&Out
20	low	low	G & C	medium	medium	different	different	signs	goo

Note: * G = guides, C = clients