Lubricating Civic Reconstruction: Reducing Losses due to Inter-Organisational Friction

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The scale of the disaster in Canterbury means that the recovery will require integrated and timely decision making across a range of organisations. The leadership and coordination of the multi-year recovery effort in Canterbury will involve varied groups, with differing interests. Large amounts of work are being done, planned, communicated and aligned. How will we keep the social agenda in sync with the structural agenda? There is no point building buildings, roads and sewers that struggle to find users. At no stage in its history, has the working population of Christchurch needed to collaborate so much. In the initial rescue phase, organisations assisted each other much as neighbours reached over fences: without careful consideration of finances and future. As the recovery phase took over, these organisations took stock of their situations, resources and mandates. Drawing back naturally from the generous help of these first phases, some organisations found they had insufficient resource to maintain early recovery efforts and had to reconfigure. Others had delays in the supply of essential materials or knowledge. Add the overlay of strain that results from the ongoing stress of disruptions and delays to ordinary ways of getting things done across organisations. Evidence is emerging of inter-organisational strain following the phases Gordon outlines for individuals – but the losses of performance are much greater in impact when the linkages break down between, for example, an asset owner and their lead contractor or a core health facility and its contracted service providers. What will keep institutions and organisations joined up, willing and able to act together?

Introduction

After reviewing the situation that gave rise to strained formal and other inter-organisational relationships, this paper considers three topics.

The first topic, keeping inter-organisational cooperation strong in the aftermath, as abstracted, was drafted at the beginning of this year. Things have changed steadily since then.

Looking at how organisational behaviour changed led to the second topic, a way of looking at what people and their organisations have lost. This was built from observations of what happens when people in organisations are trying to get stuff done with those in other organisations — especially of what's been hard. Four groupings kept coming up in descriptions of what had been lost. The degree to which they are present in public dialogue appears quite out of proportion to the contribution each can make to the recovery of community function and resilience. The dominance of attention to physical rather than social entities has received some attention, but the losses of less obvious informal information and social processes that maintain and disseminate shared values are being discussed very little.

The third topic is a way of dealing more effectively with these losses in the context of leaders of organisations trying to keep things going, in the presence of ongoing uncertainty and tremors. The exploration of when the loss happened and when it is being felt has been valuable in leaders' choices of how they engage with their people in working through what needs to be done with the effort and attention available. This process has varied, depending on whether the loss of the affected people was in the past (and they're not ready to give up on it yet), or is in the present (and they feel unable to deal with the present day because that loss is getting in the way), or is apprehended of the future (giving rise to hesitancy and anxiety that affect performance today and tomorrow).

In closing, an example agenda illustrates a sequence that has been effective in helping leaders in community and commercial organisations to reflect on their experience, seek out the strengths they have to work on their most pressing shared issues and apply a triage process to the issues as they appear to better prepare for helping their people to keep going with the work that needs to be done.

Situation Report

After the February 22 quake, reinstatement of water and power and other services was clearly going to take longer than after the September event. Many people had to leave uninhabitable homes – some 10,000

dwellings, affecting two or three times that number of people. Others chose to leave until life became more manageable. Schools and businesses tried to forecast reopening dates, needing confirmation of access to services and buildings first, then needing confirmation of staff readiness to return to work. Essential services in health and welfare stretched to meet known needs. As time passed, the urgent rescue needs changed to recovery needs, spanning infrastructure, commerce and social well-being. The focus of those arranging recovery efforts continued on these aspects.

As the urgent repair and rescue effort progressed, the attention of less directly affected members of the community moved from daily survival and recovery efforts to include grief and loss. This loss was not just of friends and family who were killed, injured or in refuge elsewhere, but of routines and expectations. Lack of clarity on when services would be restored caused further stress. Limited or non-existent access to some residences and business premises, especially in the central city, meant planning was impractical and anxiety increased. Polluted river water, stench from leaking sewers and the dust from liquefaction silt reminded many that life was very different. For some living in the west of Christchurch, the resumption of some daily routine was easier, as services and facilities were restored quickly. The experience in the east of Christchurch was different: minor flooding was frequent, power was slower to return, transport was difficult, shops and businesses struggled to operate, workplaces remained closed or open for limited hours.

As the number of insurance claims mounted, so did concern about time needed for assessments. Substantial decisions on rebuilding on affected land and on reoccupation of standing but marginal buildings seemed imminent but were delayed by technical complexities. The summer edged into autumn and further aftershocks caused additional damage. On the one hand, people appreciated the need for caution. On the other, their anxiety grew, fed by frustratingly slow inspections, frightening aftershocks and loss of routines. None of this surprises those used to working after disasters, but for those involved in getting work done through others, a new complexity arose.

The April 9 aftershock finished off some damaged buildings, and some damaged families. The extent of deep damage to social stability was already visible, but now people who moved on were supported more broadly in expressing frustration about their right to certainty over the future of their homes, land and suburbs. Authorities remained, for good reason, unable to give certainty. Individual citizens are increasingly unable to remain patient. Tension mounted. Subsequent aftershocks have brought the same pattern, diminishing in duration and intensity. As happened after each previous major shake, community support reduced as the urgency faded.

June 13 brought the end to a month of relative peace, with new and compounded damage, especially to the south east. Anxieties were heightened by this more than other aftershocks. Questions were rising over the reality of recovery. With many disasters, there are warning signs: rain precedes floods; drought famine and aggression war. An earthquake has only the roar of the oncoming shock. This reduces the effect of community preparedness: the only preparations of calming value are those which are able to be immediately activated. Recurring aftershocks, more frequent than usual in the Canterbury series, were taking their toll.

"I think we're all a bit more worried about the psychological impact on the people of Christchurch than the Government's Budget." — Finance Minister Bill English in *The Press*, 14 June.

The months that followed had many aftershocks, but December 23 brought another magnitude 6. Confidence and Christmas spirit took another hit. New Year took us to more than 3,000 shocks over 3 on the Richter scale.

The performance of organisations is affected

As uncertainty mounted in the general population, it also affected the performance of organisations essential to the recovery programme in the medium term. While the personnel of the emergency services were accustomed to working with high stress and uncertainty, and had systems and processes that were designed to cope with this, the same was not the case for agencies and firms on whose work they depended for delivery of effective recovery actions. The scramble to provide sufficient staff effort saw construction firms, engineering consultancies, healthcare providers and others bring staff from around the country to complete the work designated most needed by emergency controllers. These organisations put in place what they could to ensure that standards of work were adequate, staff did not burn out and that communication was sufficient.

Frustrations were many, but standards have been maintained and the steady restoration of water quality serves as an example of many achievements well beyond the usual delivery of commercial providers to government asset owners. Similarly, for temporary sanitation services, new prioritisation processes had to be found to match supply to greatest need, and to adapt to changing need. In home-delivery of health care services, new processes were found to deliver what was possible and communicate the changes to at least most of those affected. Schools reopened, sharing facilities in imaginative ways, coping with the ebb and flow of staff and students as households moved out and back to Christchurch.

But this is far from the 'new normal.' This should not be called 'normal' unless we expect the population of large parts of Christchurch to tolerate poor services and facilities indefinitely. That expression may suit a setting where the physical origins of the disaster are known and the underlying damage is expected to be so little that rebuilding in the same style can start promptly.

But by February, the geotechnical knowledge of the Christchurch situation had progressed to the point where such a belief was not appropriate. Christchurch is facing a different future: it cannot return to the way it was.

Organisations in this period got on as best they could with what seemed most important. There were many small events of insufficient or inadequate service delivery, where goodwill was no longer available to bridge the gap. Organisations that had been collaborating became cautious – more wary in accepting work without assurance of payment, or reliability of supply of input materials or data. This was seen in engineering, in healthcare, in transportation, in demolition, even in private security provision.

A year later, there are still many symptoms of a community in crisis. Those familiar with recovery after disasters know that until the relationships among organisations achieve a productive and sustainable footing, the situation is unstable. This instability means that time, money and goods or services will continue to be lost to relatively minor disconnections – disconnections that are due to the difficulty highly stressed people have agreeing priorities, aligning effort, communicating as work happens and resolving differences of working style. These difficulties are not unusual between organisations, but there is a continuing, high level of uncertainty-based stress across the organisations that presses them to protect their own and reduces trust and confidence in others. This stress may be unavoidable, but the reactions in key people can be assisted, so that those who are coping keep coping. Most people in Canterbury report feeling overwhelmed from time to time by the uncertainty which continues. Few have a means of being supported by those in their own groups, yet leaders would like to be able to support their own better than they are doing. Leaders know that years more of this social uncertainty lie ahead and that they will have to, individually and collectively, keep going for as long as it takes to produce a fully functioning Christchurch.

If we put effort directly into rebuilding leaders' confidence, by engaging people more broadly with constructive actions that clean and rebuild social and physical assets, we will avoid financial investment getting far ahead of social investment.

Work Being Done

With various Levels of Harmony, large amounts of physical work are being done

The first topic, keeping inter-organisational cooperation strong in the aftermath, as abstracted, was drafted at the beginning of this year. Things have changed since then. We have watched the pattern of individual responses to disaster events play out several times through the population. The stages of Rob Gordon's social process theory (Gordon, 2004a) followed through in September then again in February. Both the 'threat' and 'debonding stages' were clearly evident. In February, the practice at debonding after September's event sped reconnection of services including power, water and information flows.

In organisations, the first two stages were also evident. In the urgent phase, people collaborated without reduced regard for asset ownership, payment or regulations. This artificial 'fusion' was quickly problematic. For example, managers outside the city asked who would pay bills that seemed so obviously irrelevant to many of those in the city. One chief executive was told by his board, as late as May, that there would be no readjustment of the business goals of the year and that those staff in Christchurch would just have to find a way to deliver on plans.

By June, something extra seemed to be happening for individuals and for organisations, with aspects stuck in the 'fusion' stage and unable to progress into 'reconstruction.' Quite simply, the level of disruption was so great that reconstruction was not yet possible, in part because of the extent of damage and the delays and confusion evident in establishing insurance assessment and settlement processes that would work at the required scale and partly because of the damage caused by ongoing tremors, especially the significant shakes of June 13. Yet more came, including a psychological shake-up lasting almost a fortnight from December 23. What timing!

There is an enormous amount of work being done. The scale of the disaster in Canterbury means that initial recovery requires integrated and timely decision making across a range of organisations. The rebuilding will require the same collaboration but will probably not have the same level of public tolerance for the compromise involved. The leadership and coordination of the multi-year reconstruction effort in Canterbury will involve even more varied groups, with differing interests.

The people doing the reconstruction work are ordinary people who, from time to time, have trouble coping. They have no contact with the mental health system, unless something more extreme happens. Their ordinary coping is struggling because the earth is unstable, society is uncertain and organisational systems are struggling. The evidence can be seen by those who look: groups of people in different organisations keep passing by one another, instead of joining up and getting stuff done.

Discussions with leaders in business, community and interest organisations show a range of levels of response to these underlying stressors. Some report the difficulty arising from not being able to work out whether their people are struggling to deal with something that happened in the past, or are unable to do today, or are unwilling to tackle tomorrow. Add to this that the people, and their leaders, have little idea of how long it's going to take to achieve stability, although they know they must keep at it for as long as it takes.

New Zealand's never had a project like this. This scale of human effort has to be organised, which is hard. Very hard.

Some might recognise this building: the RSA out at Sumner. Two people lost their lives in the building
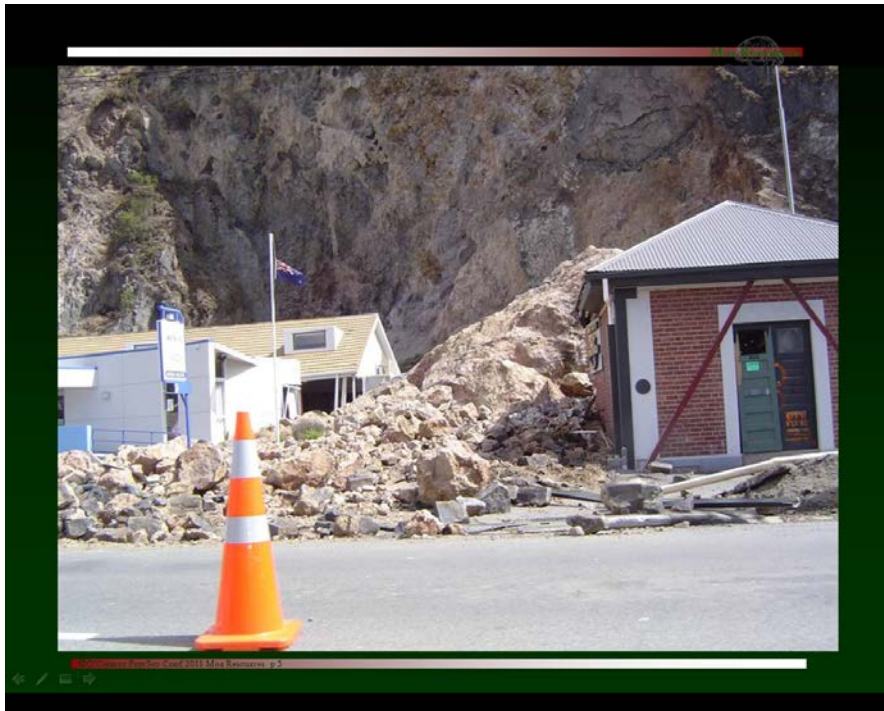
at the back, hence the flag at half-mast. Yet something is missing from this picture. Where are the people?

We've got a lot of discourse that's about rebuilding our city as the city was — its physical structures, what can go where and who will pay. A contribution we can make as psychologists is about the rebuilding of social structures. There has not been so much attention on the social structures, which are assets without which the physical structures lose meaning.

It's people that make a place. There is no point in buildings, roads and sewers that struggle to find users. Will we keep the social agenda in sync with the structural agenda?

At no stage in its history has the working population of Christchurch needed to collaborate so much.

In the initial rescue phase, organisations assisted each other much as neighbours reached over fences: without careful consideration of finances and future.

As the recovery phase took over, these organisations took stock of their situations, resources and mandates.

What comes next? In making the environment reasonable for people,

other things will be fixed too. There are many birds and plants that are upset too: the wildlife in the estuary has had many weird periods, such as spoonbills resting in the snow, when they come here for a relatively warm winter. They didn't look comfortable.

But the thing that's going on for people in trying to get stuff done in a collaborative way in organisations is that the layer upon layer upon layer of strain, just getting through the day, is

really hard.

Time moves on. Drawing back naturally from the generous help of these first phases, some organisations found they had insufficient resource to maintain early recovery efforts and had to reconfigure. Others had delays in the supply of essential materials or knowledge. To this, add the overlay of the ongoing stress of disruptions and delays to ordinary ways of getting things done across organisations.

Evidence is emerging of inter-organisational strain following the phases Gordon outlines for individuals (Gordon, 2004b). Organisations' collective reactions seem to go through similar phases after major shakes. There is quite a bit of lag, which reflects the complexity of sense-making and responding in organisations. But the losses of performance are much greater in impact when the linkages break down between, for example, an asset owner and their lead contractor or a core health facility and its contracted service providers

Rob Gordon talks about stages passing in a matter of weeks, (Gordon, 2004a). In this setting, the adjustment is taking a lot longer for individuals, so the changes for their organisations take longer. It appears to be happening over a period of months instead. With

many people still awaiting the reconstruction stage getting underway for their homes or workplaces, detachment turns up – inter-organisationally, as well as interpersonally – where people tune out the aspects of life over which they have no influence. For most, this detachment will fade when reconstruction starts. In the meantime, leaders must keep organisations functioning through high proportions of people experiencing detachment.

What's going to keep them working over the next five or ten years of this. This leads to an interesting expression of the psychological loss, an expression that is hardly expressed openly as it feels, residents say, too hopeless to voice. They wonder how many years are needed to close the gap between what they had and what they've got now.

What We Need to Recover

What will keep institutions and organisations joined up, willing and able to act together when circumstances are ready? As psychologists, we should be helping people understand what's involved in the choice to survive and to change, as individuals and as communities, so that they can use the assets at their disposal in a pragmatic way.

Discussions were had with a range of organisational leaders on what had to be done seemed so overwhelming in the first few weeks that a different approach seemed likely to be useful: What has been lost that is getting in the way of people in organisations trying to get stuff done with those in other organisations? Leaders came from organisations involved in business, community services and particular sporting or activity interests. From these discussions, four recurring groupings emerged of 'what had been lost'. Although quite different labels were used, further discussion showed these were similar things, described differently in reflection of the mode of working in each organisation.

As the four groups became clear so did the need for a description of what they have in common. In the first instance, they were described as changes — four quite different kinds of changes which put strain on the people of Canterbury. One group was physical, involving, for example, infrastructure, homes, retail and recreation facilities. The second group was informational, though not necessarily official or formal, e.g., where things were, when and for how long. A third group was about aspects of social networks, focussed on the exchanges of social value through the network. The fourth group was

attitudinal, reflecting a change in focus or priority, such as greater concern about being in touch often, of being unable to approach tasks or relationships confidently.

Further discussion showed each had the beneficial properties of assets, in that their presence was positively valued, action was needed to maintain and secure them, and their absence left a sense of loss.

The degree to which the four groups are represented in public dialogue appears quite out of proportion to the contribution attention to each can make to the recovery of community function and resilience. The dominance of attention to physical rather than social entities has received some attention, but the losses of less obvious informal information and social processes that maintain and disseminate shared values are being discussed very little.

There are social needs that underpin economic recovery and they need attention too. For people to be effective in purposeful rebuilding activity of whatever kind is their lot, and stick with it until it is done well enough, they need to:

● acknowledge a gap between what they had and what they now have

● be able to address that gap

● have confidence that the gap will stay addressed.

This appears to be the case for all individuals and applies with slight variation to groups, whether families, neighbourhoods or more formal organisations.

For all classes of asset, frequent experiences of this immediate frustration leads to reduced willingness to try again in future.

In contrast, experiences of success in reasserting control over assets in each class increases willingness to try again, and to persist until the gap is closed.

Psychologists should be fostering the rebuilding of assets in each class in accordance with their impact on

The strain Christchurch people face

Physical changes
· Traffic
· Exercise
· Access

Informational changes
· Where are things now?
· What's still operating? This week?

Social changes
· Who's about? … family, friends
· Which group does what now?

Attitudinal changes
· Risks and worries

overall economic and social recovery. A programme to support this natural process of asset repair is called for.

Being able to do something about it is the only thing that's going to change life. This means having confidence that it will stay addressed. Imagine repairing a window and then having it break again. Imagine repairing a chimney and having it fall again. Imagine, as people managed to do between September and February, making major repairs to a house, and then having no house left. Fortunately not very many people went through that experience. But organisations have, because their 'houses' are far more mobile. To adapt, they relocate essential people, equipment and information and try to continue. But replacing lost or trapped equipment consumes a lot of time and money. Skills and knowledge move away when people have to move on. And much information that is lost is lost forever, especially in smaller and voluntary organisations.

I'm reminded, brutally, of something W. Edward Deming said, along the lines of "It is not necessary to change. Survival is not mandatory." Not for organisations. Not for individuals. Some people, and many groups, won't resume the life they had.

First class of affected assets: Structures

We've got so much that's broken. Structural assets, such as houses, factories, pipes, roads and wires, are both familiar and direct.

For example, when I notice my window is broken, I want it fixed to keep wind and rain out. I find someone to do the work and, if needed, a way to pay them. I choose someone who will do a good job so re-repair is not needed. Asset utility is reinstated to a sufficient standard. Most people can do some of this.

So when physical stuff if broken, I fix it for a reason. I find a way of doing it, or I find someone to do it, and I get it to the point at which I'm okay to function again.

Munted: Made useless
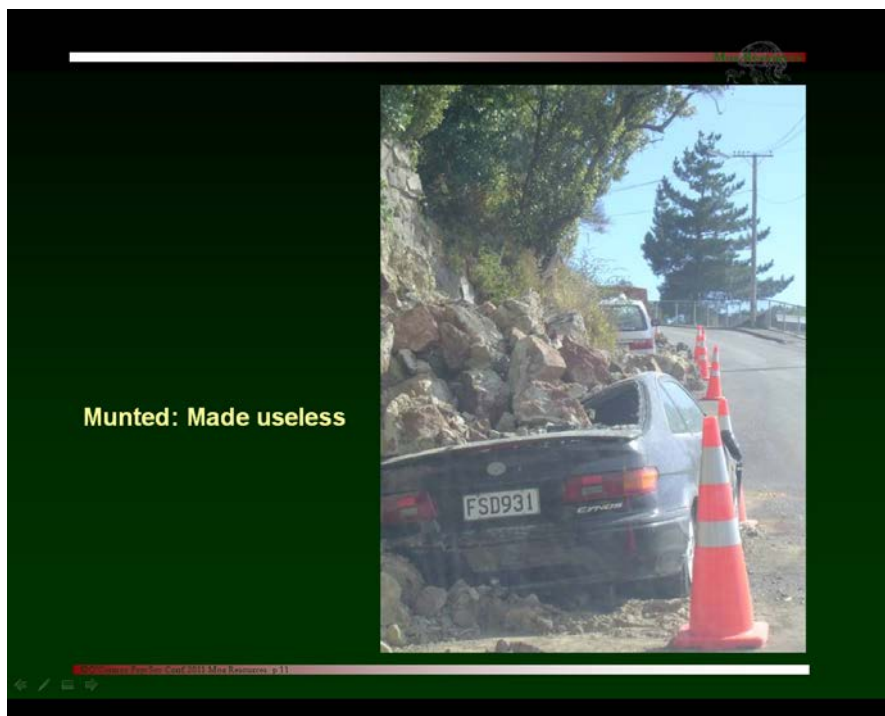
A lot of organisations haven't realised that's what they're doing: they are patching things up, surviving from one day to the next, doing what seems most important at the time.

But some organisations did well at getting property, equipment, people and funds organised to do their work again, especially the commercial ones.

For those that run on voluntary effort, it's harder. People have to make homes safe before they can help at a temple, clubrooms or theatre.

Second class of affected assets: Information

Informational assets include: who lives where; where food or utility services are available; which schools are able use sports fields; or where parking spaces are commonly available. Each of these is familiar to those who use them a lot, and the information is stored in a variety of ways. Rebuilding is less direct: users may be frustrated that they no longer 'know' what they did. Their ability to reinstate useful knowledge is limited by their ability to gather it, by direct experience or through other channels. Ongoing changes, due to additional damage as well as repairs, reduce their confidence at being able to use the new information in future.

Many people struggle a bit with this loss of reliable information, but they persist and gradually the gap is filled or the importance of the gap is lost in all the other things that need doing. Organisations are responding to address the explicit data losses first, with the know-how carried in people's heads less available due to the strain of operating while fixing the structures that aren't as they were. Information flows among organisations are constrained by damaged infrastructure and by distracted human carriers: workplace conversations spend less time talking about 'the work' than used to be the case.

But what the June 13 event triggered seems different: it wasn't just a response of "Oh no, not again!" This time, people lost a little more heart. And this sense of loss continues, with general resilience seeming lower, shown by increased friction between organisations, more rapid blaming and other defensive routines typical of a situation where individuals and groups have lost confidence.

Consider information about transportation. The roads keep changing. The vagaries of earthquake faulting and liquefaction changed smooth surfaces to roller coasters and rubble. Damage near the rivers was frequently the worst. Many bridges are out of order or carrying limited loads.

Extensive patching has been done. Now add the bypass and reconstructive surgery needed to keep the city's fresh and waste water moving through undulating roadbeds. Changes to major roads are made daily, to patch new holes and press on with repairs. Signage helps, warning of the need to consider alternatives. Alternative routes are frequently a trip of twice the distance. A few work-arounds involve distances as much as ten times the previous direct route, with traffic often moving more slowly than it used to. The joy of the roller coaster ride ceased to amuse kids months ago, and the time required to get them to after-school activities reduces the attractiveness of the activities, however good they are for keeping kids learning and busy. The bus system is operating, but many routes are diminished, timing is less certain and the number of changes from bus to bus has adversely affected people of limited mobility, who used to prefer buses as easier than alternatives. The challenge of rebuilding the roads is one issue. The challenge of navigating the disrupted city is a real, significant and unavoidable cognitive load.

Many people struggle a bit with this sort of loss of usable information, but they persist and gradually the gap is filled or the importance of the gap is lost in all the other things that need doing. Trends noted in organisations:

- Ongoing change (further damage as well as repairs) reduce confidence in being able to use information

- Organisations responded by addressing explicit data losses first

- Strain of operating in a disrupted and uncertain place means less ease of access to tacit know-how carried in peoples' heads

- Information flows among organisations constrained by damaged infrastructure and distracted human carriers

- Workplace conversations were less about 'the work' than used to be the case: reassurance and information on daily necessities was more important.

Rebuilding is less direct for information assets than it is for physical assets, and it is far more complex with dynamic matters, such as roading. A number of psychosocial impacts also emerge: the users of information may be frustrated that they no longer 'know' what they did. Route options change and no-one can be certain that the route used yesterday will flow as well today. Reinstating useful knowledge is limited by ability to gather it: the only way to find out is to go and see. There are substantial efforts made by many organisations to advise where services can be found, what has moved where and what hours of operation are current. The rate of change makes it difficult for organisations to keep published information current. And the diversity of replication channels requires several versions, although it does also speed passing on others' learnings – e.g., Facebook and Twitter.

For individuals, the effort required to reconstruct information that changes unpredictably presents an additional day by day load that seems difficult for those outside Canterbury to appreciate. But for organisations with a hundred, or a thousand, 'customers' of some shape or form, where does one start? How do we say what we're doing, when we're available and so on. Where are our people anyway? If they need something, and I'm in the business of providing something, is my something where I can get it to them?

"I have to get water. From where do I get water?"

Many people lived for weeks or months beyond the 'water line', without water on tap. Once the location and reliability of supplies worked through, getting water became as natural as getting groceries, although few New Zealanders had reason to carry all the water they would use in a day. But people adjusted: they found ways to carry water, and purify it. The concern about water-borne infections was responded to well, and Christchurch people still use hand sanitiser gel in significant quantities. Free information about the need and free supplies at water tanks helped uptake.

Schools, for example, changed their status several times. Which ones have got a field that the kids could run around on with a ball? After September, there were weeks without school, then a gradual return to class for most. By Christmas, a sort of stable pattern had settled over school activities, with families adjusting as they could to changes in travelling time, facilities and extracurricular

It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change

– Author unknown, commonly misattributed to Charles Darwin

activities. February's event was followed by weeks without school and limited ability to return children and their family to the temporary arrangements that followed the September tremor. Status of structures took time to establish: winter rains showed disruption to drainage of many school fields, even if they remained level. Six months later, many are in much the same condition as they were in February but effort is being made to restore them to service – our communities need green spaces to run. So availability has fluctuated, and effort has been required to find out status from time to time, given that it changes unpredictably. Informal information exchanges are valued highly, though they are rarely as reliable as official channels.

Information channels were used differently in the days after September 4. The information sought was simple and well defined: where my people are, what they need and so on. But with a lot of information channels unavailable or overloaded, shifts were made in channels used to give and get information. Without power, people were restricted to battery powered communication. Radios. Phones. People who had never used Twitter started. Facebook took off as power returned. And the rapidity of information flow became quickly expected.

Even the national radio news carried reports of major aftershocks with running commentary while they waited to relay the location and magnitude from the Geonet website. Information travelled differently. People had new kinds of information to deal with. Learning was constant, and learning takes effort.

Initially, information circulated quickly and was variable in accuracy. Which supermarkets had bread? Where is the cordon around the CBD now? Who has been injured or killed? But people were tolerant: the rescue message was pervasive and patience was not uncommon. Organisations, like individuals, had to wait.

Uncertainty kills information value. But not knowing what you can count on kills the value of that information. This uncertainty applies to commercial information as much as to personal information. Organisations, as they regrouped, found a mix of tolerance of uncertainty as well as an expectation for accurate and timely information. Some people struggled more than others with what could not yet be known. It took some organisations weeks or months to reach the point of not setting deadlines by which information would be available, especially when it was impossible to know when the information would be sufficiently complete. As the public came to understand that the condition of the old river gravels and swamp under Christchurch was variable and made it complex to decide rebuilding constraints, so organisations found it hard to predict how the demand for services or activities might flow.

For example, although there was much talk about the increase of activity due to insurance payouts, it was already clear from previous smaller disasters that payouts would be slow and that organisations needing to restock, rebuild facilities or re-equip were likely to have an extended period to bridge before they could reach ordinary functioning. This set inter-organisational information flows back, making it harder to predict service level requirements across sectors which usually planned distribution well (petrol, bread and water, for example) as well as those which were more difficult to predict (mental health admissions, school enrolments and welfare assistance requests).

Over the months, organisations found ways of adjusting to information uncertainty, by asking more than one source, by asking repeatedly and by going to see for themselves. Frustration grew with the slower-than-expected rate of progress, but it was hard to provide reliable information, such as on when complex decisions can be made. The underlying information base has been insufficient or incomplete. This made organisational planning very difficult and stressed inter-organisational information flows.

At the same time as increased used of some channels compensated for difficulties with others, a new problem emerged, related to the ongoing change caused by repair work, additional tremors, decisions to move place of work or family and ability to commit assistance to activities some days ahead. All these are examples of this new problem, that uncertainty kills information value.

Wilful misinterpretation of information? Psychologists should also consider biases imposed on information interpretation, often originating in the experience and culture of the perceiver.

Organisations have had varied experience with the confidence members of the public or members of specific organisational groupings attribute to their communications. Some organisations have struggled to present facts that are accepted by stakeholders – a common organisational challenge after major change. Relatively little effort seems to have gone into looking at how poorly trusted organisations could use more highly trusted channels to increase the uptake of their recommendations.

The aspirations, or frustrations, of people also colour their interpretation of information. Dozens of people have been asked what the GNS map shown below says to them. Once they understand the 'big blobs' are big tremors, green ones are the early ones from September 4, red ones are later (February 22), and blue ones June 13, and the most recent in pink are December 23, each has said much the same thing: there is a clear progression from west to east over time. One person added: "Quite quick too, considering." A geotec specialist might ask *what* he was considering; a psychologist might interpret this comment as considering a need for comfort, rather than data-informed reasoning. The map is from www.geonet.org.nz/canterbury-quakes/.

A lot of people don't know how to make sense of what the geotechnical people are saying about the independence of fracture events and

the effect of the rock of the Port Hills meeting the old swamp and shingles of the Waimakariri delta, which lies from the present Waimakariri River (a little north of the label for Central Christchurch on the figure), south to Lake Ellesmere, above the Seismicity label on the map.

They *want* to believe it's moving across. If it does, it's going to keep on marching east until it's away out to sea, which is far more comforting than the continued uncertainty about when and where the next aftershock will be—especially if their Christchurch homes are near mine, under the blue star where the hills meet the sea southeast of central Christchurch.

A similar sense-making challenge comes with the University of Canterbury's Christchurch Quake Map time series showing the daily energy released in the region, from www.christchurchquakemap.co.nz/dailyEnergy. Without understanding the logarithmic scale of Joules, people
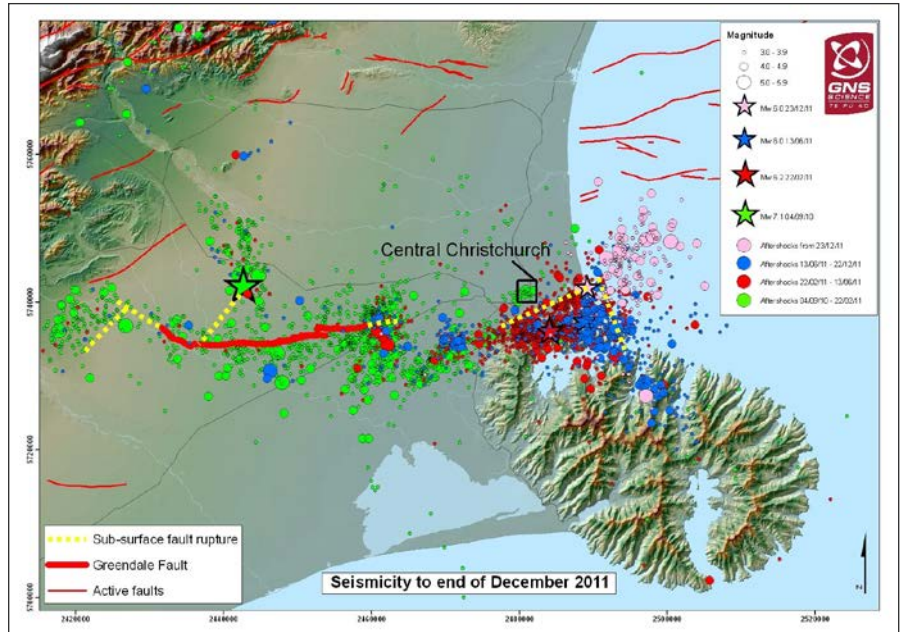
said there has only been a small decrease in energy and that this meant that the promise of reduced quaking is not kept. Increasing frequency of the red (top) line dropping to zero from time to time after September 2011 was rarely noticed.

However, people seem to relate to the line showing shocks per day (an orange line with shaded area below). This is something on which their

personal counting was more accurate, compared with the felt or measured magnitude of shaking.

Since organisational decision quality is greatly affected by psychological confidence, the importance of providing information that is likely to be interpreted realistically is important. Loss of business confidence will slow reconstruction by reducing willingness to invest effort in repair to all four classes of asset being considered here.

Third class of affected assets: Relationships

Relationships are assets used for exchanges of value to achieve social and economic objectives, such as to: share responsibilities for care of other people, especially those less able; produce goods and services; have fun and create stuff. Relationships are familiar to those directly involved and the goodwill is held in different ways.

We have business to business relationships for similar reasons: to share things, to do things, to produce things, to have fun — except that there's a price attached. Service relationships work on the same basis.

These relationships have been impacted on in the same way that the physical structures have: we have lost the ease with which we exchanged value. Absences, distractions and reduced availability (face to face, by phone or other form) mean that the relationships are no longer as able to support exchange as they were.

Relationships in families and in neighbourhoods show strain in various ways: frazzled interactions, low tolerance of differences, inflexibility.

Organisations feel this stress too, and relationships within and among organisations show similar disruption. Negotiations are more heated. Agreement is more fragile. Trust is harder to win. Anxiety about keeping of promises on delivery of goods and services receives frequent comment.

When rebuilding is needed is less obvious: parties to a relationship may be aware that they no longer receive or give what they did, and may wish to restore this. Rebuilding organisational relationships requires leadership, resources and information. If any of these are in short supply, rebuilding will be delayed or confused.

It's just like the physical rebuild: it's hard to rebuild trust when you don't have confidence in tomorrow. If you don't trust in yourself and your own ability to manage the present, how on earth are you going to negotiate a recovery plan for your organisation, winning the support of people, securing resources and finding a place to call home?

"Does it need rebuilding or do I just forget about it?"

With ability to reinstate relationships limited, confidence about being able to rebuild for the future suffers. Relationships in families and in neighbourhoods show strain in various ways: frazzled interactions, low tolerance of differences, inflexibility. Relationships among organisations are more tenuous – they appear to take longer to form initially and observation suggests they take longer to reconfigure when stressed.

Fourth class of affected assets: attitudes

Attitudes can be social and economic assets too. Some enduring attitudes, sometimes called values supportive of producing desired economic and social outcomes, include fairness, impartiality, responsibility, and trustworthiness. A desire to get things done, insistence on sufficient quality and consideration for the needs of others are further examples.

Attitudes are not as reliably described as are other classes of asset, yet their loss gives rise to social and economic consequences that have direct impacts on recovery. Rebuilding attitudes is often indirect: people may be frustrated that they no longer 'feel' what they did but have no sense of ability to change the way they 'feel' in their immediate setting or in the likely future.

Attempts to rebuild reflect this low ability, and frequently end in frustration. Many people have found that effort to take control of the mess their house or factory is undone by a further aftershock, a decision by an authority or some other neighbourhood change, such as the departure of a child-care provider, damage to a vehicle exacerbated by road conditions or inability to get materials needed at a price that allows.

Where's the big programme to build up attitudes for, say, just the obvious business part of Christchurch, so that they'll bounce into the next few years instead of stagnating. Decisions from outside organisations that freeze where you are, sometimes for months, have an impact on attitudes that lasts beyond the freeze.

Consider EQC. It has a job to do, meeting obligations to insurance policy holders. It has to pause to collect information, as any insurance company would, to be sure it pays only on valid claims. It was under-resourced for an event of this extent and struggled to scale up. Any organisation faced with service requests increasing by two orders of magnitude would be similarly challenged.

So there are delays while additional information is gathered, more urgent cases are progressed and, in some cases, another shock compounds the damage. This pause, while necessary, appears to be affecting the re-growing process for many individuals and organisations. In addition to freezing the money in compensation for loss, the freeze extends to the sense of confidence that getting things done achieves, reducing willingness to persist. Policy cover doesn't include these social costs.

Psychology Can Help Secure the Well-Being of Our People

Psychology is helping the several thousand who were or are mentally wounded. But we can help more as a profession by focussing on the few thousand others who are leaders of businesses, services, communities, whānau, churches, social groups and

sporting codes. All are necessary to rebuild society

To secure the well-being of our people, continuing leadership is needed.

Effective leaders enable their people to get on with their essential stuff. Leaders are our best antidote to uncertainty. They help us focus on what has to be done. When we get stuff done, we all feel we've achieved something. We are then confident about doing something more—e*ven if another shake means we have to start over*.

Leaders, as individuals, struggle just as the rest of us do with the uncertainty and stress. They must also

- cope with more changes to schedules

- adapt to the latest departures from the city or supply lines or customer ranks

- find another person to do the work that is still needed when one moves on.

We cannot afford to lose leadership because our people will lose heart. Rebuilding needs to support existing highly effective leaders in the greater Christchurch community—*and for as long as it takes*.

Confidence areas worth most attention in these leaders

With limited time and resources for intervention, effort is needed to identify and enhance the capability of various kinds of leaders, so that they are more able to keep going. This means looking for the highest leverage on capability and persistence. Existing leadership development is adequate for this, but assisting leaders in dealing with levels of uncertainty and stress presently encountered is rare outside combat training.

Discussions with a range of people in leadership roles identified the area of greatest concern was key personnel who seemed too stressed to be productive but weren't unwell enough to be sent home. These leaders were concerned that the stress level
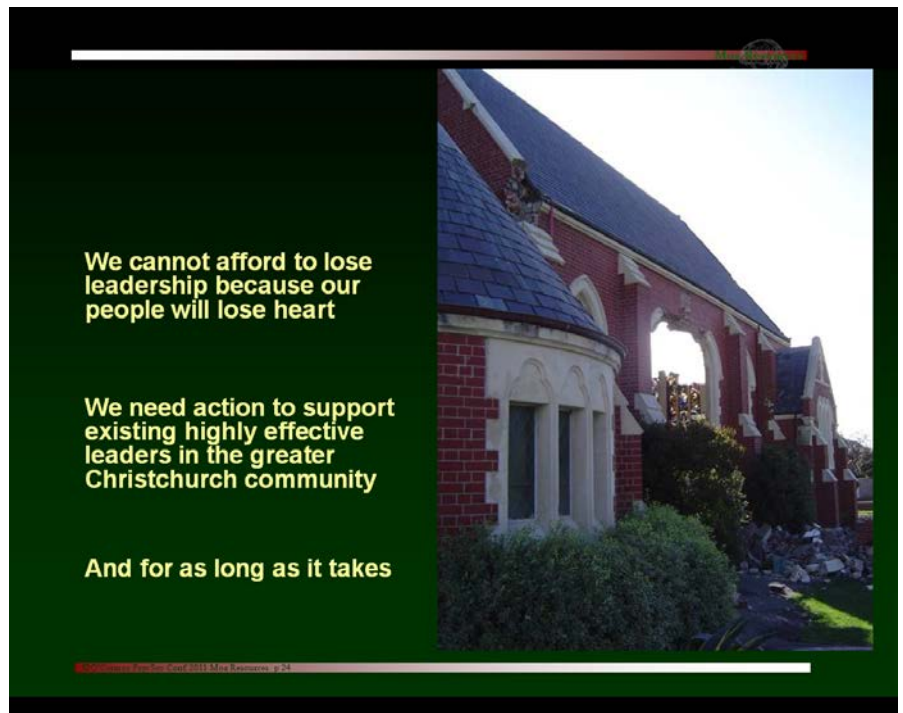
for these people could only rise. The sources of stress were varied, as might be expected. Some were concerned about their homes or families. Some had lost friends. Some had to consider leaving the city.

We discussed the contrast between highly effective and less effective people. In high uncertainty, the highly effective ones have few advantages, but if they persist at doing stuff, it means they might succeed, even if they aren't doing it in the best way that exists. Three conditions are always present: these people are ready, able and willing.:

- If we can see a gap between what we have and what we want to have, that's good. That makes us ready to do something about it. Can't see the gap, can't be ready to address it — it has not claimed attention yet.

- If we also have the ability to do something about it, we might even give it a go – we'll need time and skill and money and materials and permission. Good. Give it a go. We might make some progress.

- If we have confidence that the skills, knowhow and other stuff we bring to the task will be sufficient to succeed, we might be willing to persist until the real job

is done. But if we are concerned that permission or resources might be withdrawn, we will hesitate. Sooner or later. And while we still have readiness and ability, we might lose the will to press on.

Remembering that support for people coping in extreme circumstances, there seemed a need to look at what was causing this big difference in motivation, and whether stress alleviation might help the adversely affected personnel. Searching for what might make the difference, discussion turned to the *when* they were concerned about, rather than the *what*. Some were stressing about events in the past. Some were fretting about things happening 'today.' And, in a few cases, concern was about things that might (or might not) happen. These needs, it seemed, were causally different. Three groups caused organisational difficulties of different sorts, although all resulted in confusion and delay:

- Events in the *past* causing the confusion and delay to organisational performance, by affecting immediate *readiness* to keep at the tasks of the day

- Ruminating on events in the *present* affects short-term *ability* to get things done, and not taking

on things beyond present resources or permission.

- Excessive concern on *future* events affects long term *willingness* to keep trying for the foreseeable future within capacity and consent limits.

All three are parts of motivation required for performance, and for stable performance, all three must coexist – the stool is unstable on two legs.

Criteria were developed for their transition from poor to better functioning:

- Immediate readiness to keep trying, and accepting other things are not ripe for immediate attention
- Short-term ability to get things done, and not taking on things beyond present resources or permission
- Long term willingness to keep trying for the foreseeable future within capacity and consent limits.

Exploring and Addressing Aspects of the Stress

The following process suggestion has been used in a number of settings to work with what people already know and do confidently to assist them in getting the best out of their people.

It seems that if functioning is not too heavily impacted already, it can be useful to gather a group of people for a couple of hours to discuss the ways in which they address the stress felt by those under their leadership. This utility has been confirmed by monthly follow-up, where time permits.

By focusing on what they have done that works, the people involved reinforce their own effective coping strategies and encourage others to try them.

There is little need for theory or self-disclosure, beyond describing the situation sufficiently for others to see why the leadership choice made was suitable and likely to be effective

While an example of a detailed evidence-based coping support process follows, there are many others.

More important is guidance that helps participants discriminate what works from what mightn't:

- To notice ordinary leaders' responses/reactions to abnormal events including change, loss, grief and trauma

- To listen effectively and respond to those who look to you for leadership when they are stressed or distressed.

There is much we can do to improve resilience in people, but we need to distinguish among people who are:

- coping well at present and show no present vulnerability
- coping variably at present and show some vulnerability
- not coping at present and show high vulnerability
- likely to benefit from specialist help.

This is especially true if we focus on how people are coping and help them carefully with the particular challenges they face in their social and organisational context, not with the general challenge the city faces.

We don't want to teach a set of strategies that have to be unlearned if matters get worse for folk

Example Agenda: A Very Busy Hour

Background to the strain Christchurch people face

- Physical changes – traffic, exercise, access
- Informational changes – where things are now
- Social changes – who's about – family, friends
- Attitudinal changes – risks and worries

Stress responses

- What everybody does…
- What some people do…
- What makes things worse …
  - How do I react? How do my friends see me?

What makes it harder to get work done

- Uncertainty in programmes
- Uncertainty in colleagues / clients

- Uncertainty in self / close 'family'
  - What can I do about my uncertainties

Who am I concerned about?

- Colleagues?
- Friends?
- Family?

And what are they concerned about?

- Events in the past
- Things happening today

- Things that might (or might not) happen

Discussion on what we can do when

- Getting help (from …)
- Helping others cope better
- Helping myself cope better

References

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Author Note

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▲ Over 100 containers hold back rockfall — the epicentre of the June 13 quake is at top right — ©2011 Geoff Trotter