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RSM DISCOVERY 36

Management Knowledge

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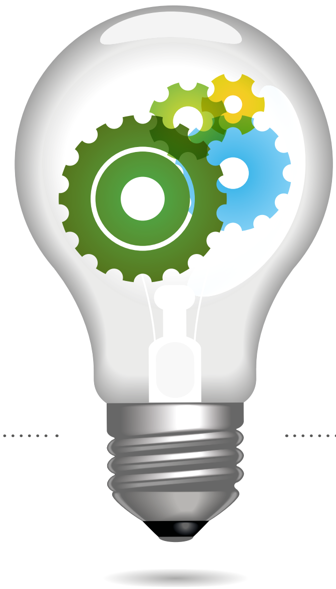

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Introduction

Making positive change a reality

When world leaders agreed the 17 UN Sustainable Development Goals (SDGs) in 2015, it signalled what many consider to be a paradigm shift in that they represent, to quote the UN, 'the blueprint to achieve a better and more sustainable future for all.'

However, while the goals provide a focus for business, civil society organisations and governments to collaboratively bring about real change in the world, firms in particular must speed up their adoption of the SDGs and ensure that this is more than just symbolic. Effective implementation of the goals requires open debate and interaction between all layers of the organisational strata, and with the broadest range of stakeholders – otherwise there can be no shared meaning or collective purpose. Firms, therefore, must strategize their involvement with and support of the SDGs.

To help firms do exactly this, Rob van Tulder, Professor of International Business-Society Management at RSM, has recently published *Business & The Sustainable Development Goals: A Framework for Effective Corporate Involvement*. In his article in this issue of *RSM Discovery* magazine, Prof. Van Tulder explains his framework and states that: 'Companies should begin to view the SDGs not as challenges but as vibrant new opportunities...' This is a view that needs to be taken by all business leaders. Read more on p17.

In addition to eco-sustainability, smart-thinking firms understand the critical value of human sustainability – the empowerment of human resources and the ongoing development of talent. On p05, we explore the approaches being taken by the Erasmus Centre for Leadership to help organisations successfully manage human capital through the development of executives who are fully prepared to tackle the complexity of challenges businesses face today.

In other articles, Mariëtte Kaandorp explains how entrepreneurs can network successfully when the future is unpredictable. Entrepreneurship also features in Timo van Balen and Murat Tarakci's article in which they examine whether disruptive start-ups attract more funding or not (p11). On p14, René Bakker provides informed insights into how start-ups and smaller organisations can successfully negotiate alliances with firms that are much larger. Finally, Christophe Lembregts looks at why numbers – specifically how they are presented – play an important role in how consumers evaluate products (p20).

All told, I am sure you will find the articles in this latest edition of *RSM Discovery* magazine to be both interesting and informative, and I welcome any feedback you might have.

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Understanding effective leadership development

By ***Hannes Leroy and Verena Ohms***

Leadership has always been crucial to the effective functioning of society, and organisational performance depends in large part on the successful management of human capital. Throughout history, leadership has been vital to the fortunes of companies and entire economies alike. Yet today we face an increasingly complex world that requires leaders to deal with what we call "wicked problems" – challenges that have so many variables involved that it's not possible to solve them with natural-born charisma or talent.

Many people still believe that individuals are born as leaders, but they're not – they're made. And to give this rapidly changing world the leaders it needs, we urgently need better leadership development. So how do we get better at producing leaders who are fit for purpose?

The reinvigorated Erasmus Centre for Leadership aims to do just that – contribute to the understanding of effective leadership through fundamental as well as applied research into the field, working with the RSM community internally and with external partners to produce the type of leaders the world today desperately needs. All facets of education at RSM, whether in the bachelor, master, MBA, or the school's executive education programmes, have some form of leadership component, and we are working to energise these courses with leadership development. We are also working with external clients – organisations, large and small, profit, non-profit and governmental – to create a home for people who are passionate about leadership: a place to come together to be better leaders.

Leadership conversations

One example is our Leadership Conversations event that brings prominent academics and working professionals together to debate the big leadership challenges of the day, create effective solutions, share best practice, and enjoy what is also an excellent networking opportunity. The next event is on 10 May 2019 and we invite all who are passionate about leadership to attend.

Myth busting

At RSM, we house more leadership experts per square metre than any other leading business school and use state-of-the-art management science facilities. We know what works and what doesn't work in the realms of leadership and leadership development. These points are made because it seems like

"We know what works and what doesn't work in the realms of leadership and leadership development."

Understanding effective leadership development *(continued)*

By ***Hannes Leroy and Verena Ohms***

every five minutes there is a new leadership book published, and pretty much anyone can call themselves a leadership developer. From horoscopes to "feel good" workshops, strange concepts, perspectives and tools are being used in the name of leadership development, often without any scientific proof that they are beneficial. That's why we've launched a leadership podcast that, similar to the popular MythBusters TV show, takes a critical approach to debunking unfounded leadership theories and myths.

Authentic leadership

One such myth relates to authenticity in leadership. Bill George, who pioneered the concept in his best-selling 2003 book, defined authentic leaders as those of the highest integrity, with a deep sense of purpose and who recognise the importance of their service to society. The idea was to hone a new generation of leaders who can learn from leadership failures that led to the corporate scandals, such as Enron's. George's research has shown that authentic leaders are more willing to grow and learn; and that by taking on new challenges, they become more effective.

However, many self-proclaimed leadership experts have taken George's message out of context and fail to acknowledge that authentic leadership comes with downsides. For example, we know from various studies that feeling "authentic" is negatively correlated to being perceived as authentic. In other words, if you say you're authentic, people tend to view you as the opposite. That can lead to you not getting

"We want to help leaders bring their best self forward..."

the promotion you want, or a bonus, or even marital problems – you name it.

The reason people love going to authenticity workshops is that it gives their self-esteem and ego a boost. But research suggests the approach has dangers, and our podcast series will bust this and many more leadership myths.

Hands-on approach

This is one of many examples of our hands-on approach to leadership development. Research is of no use if it has no practical application in business and management, and this is of paramount importance to us. We will be conducting field research in collaboration with a variety of organisations from the worlds of academia and business, and developing experimental research in carefully controlled laboratory environments.

We hope to demonstrate the value of our school's research not only through citations in top academic journals, but also by showcasing its practical value and impact in the real world of business.

Helping leaders

One example of this is our Superhuman Balance Track. Leadership has always been demanding, but the pressure on managers now is extraordinary, and it doesn't just stem from their work but their private lives, too. Leaders today are required to be superhumans and the pressures can lead to burnout, depression or unhealthy lifestyles.

We want to help leaders optimise their health, both physically and psychologically, so they are able to cope with the pressures and perform well amid this increasing complexity. To that end, our Superhuman Balance Track helps leaders understand how to cope with these pressures. For example, we teach leaders what science tells us about important issues connected to health and well-being, such as the optimal hours of sleep, diet, etc.

We want to help leaders bring their best self forward – to run a marathon, not just one short sprint. We're even developing an instrument that, based on heart rate variability, will send a message to the user's smartphone to alert them if their stress levels spike out of control. Our leadership development goes way beyond simple communication.

True character

As another example, we take EMBA, MBA and executive education students on an expedition to Norway. They spend up to 12 hours a day walking through snowstorms of up to 100km per hour. In the face of all of that, their true leadership characteristics come to the forefront. This fits in with our core principle of leadership development, which is: "uncomfortable, but learning."

These are just some of many ways we engage with and help individuals to become real leaders, and we call upon all students and professionals who are passionate about leadership to get involved and work with us on furthering leadership development. ■

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Our Mission

Being a force for positive change by understanding and cultivating the next generation of successful leaders through evidence-based practices.

Our Core Values

Our center works within the spirit of the broader values at RSM:

1) CRITICAL: We critically evaluate notions of "effective" leadership and how this can be developed. As much as possible, we try to move away from ideology to what actually works – evidence-based.
2) CREATIVE: We show ourselves open to the most innovative, groundbreaking approaches to leadership and leadership development.
3) CARING: We build a caring community of leadership enthusiasts that cares about its members but also about the broader society.
4) COLLABORATIVE: The initiative is supported within the business school by relevant parties.

For more information about the Erasmus Centre for Leadership and the next Leadership Conversations event, which takes place 10 May 2019, visit
WEB **www.erim.eur.nl/leadership**

Entrepreneurial networking: from uncertainty to opportunity

*Chris Murray talks with **Mariëtte Kaandorp***

Entrepreneurs who network to potential partners and contributors are often seen as "heroic captains" navigating with deliberate focus toward networking targets or ties who can help them achieve their goals. However, this goal-driven perspective of networking by entrepreneurs is based on assumptions of certainty that are unrealistic in the world of entrepreneurship, believes RSM assistant professor, Mariëtte Kaandorp.

In a recent *Journal of Business Venturing* article, written by Dr Kaandorp with Yuval Engel of the University of Amsterdam, and former RSM professor Tom Elfring (now at the University of Liverpool), the authors ask: 'How can entrepreneurs strategically network when the future is unpredictable? How can they intentionally target ties when their own goals are underspecified and their preferences unordered? And how can they plan tie formation when every networking action alters information on which such plans are based?'

Dr Kaandorp and her co-authors argue that this large presence of uncertainty in entrepreneurship suggests that entrepreneurial networking should be based on the theory of *effectuation*, a psychological term describing how people behave or take actions in uncertain conditions.

In this interview with *RSM Discovery* magazine, Dr Kaandorp describes why an effectuation-based model of entrepreneurial network addresses the uncertainty inherent in entrepreneurship and offers a path to new opportunities for entrepreneurs – and new opportunities for managers and companies beyond the world of entrepreneurship.

Creating outcomes

Networking guided by effectuation, Dr Kaandorp explains, is the opposite of goal-driven networking. With traditional ideas on networking, a person will have a precise goal and will seek out the precise information needed to achieve that goal. With effectual networking, she says, the entrepreneur recognises that future outcomes are uncertain; the only way to ultimately achieve any outcomes, and the goals and ideas that lead to those outcomes, is to *create* them through the process of networking. 'Through interactions with others, means, ideas and outcomes are moulded or shaped by the process of interacting,' she says.

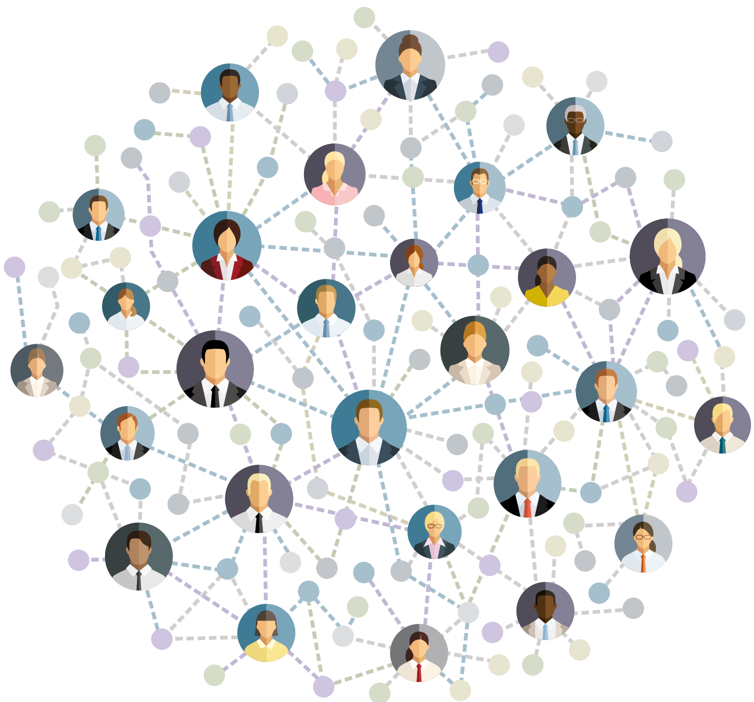
This creation approach of entrepreneurial networking requires a new mindset, Dr Kaandorp says. First, entrepreneurial networkers must be prepared to 'embrace the unexpected,' she says – for it is often from the unexpected that new ideas and goals emerge. 'Entrepreneurs operating under uncertainty, and with regards to networking in particular, need to be open to unexpected opportunities or unexpected outcomes, and see them as opportunities, not as threats,' she says.

An open-to-the-unexpected mindset, Dr Kaandorp notes, allows serendipity to play a role. 'Networking is a way to fuel serendipity,' she explains. Networking involves 'taking action into a certain area, working on the idea, being busy, and having some awareness of what's going on and what outcomes are emerging – all of this will help to crystallize the idea. So serendipitous outcomes are also outcomes of the process of entrepreneurial networking.'

Intelligent altruism

The entrepreneurial networking mindset also includes different motivations behind the networking efforts. Entrepreneurial networkers, she explains, approach their network with altruistic motives – that is, having the desire to help others as much as the desire to be helped. 'If you're uncertain about the future, if you don't know when someone new will be valuable for your

> *"Entrepreneurs... need to be open to unexpected opportunities or unexpected outcomes, and see them as opportunities..."*



end goal or not, it is better to behave altruistically. Because if you falsely interpret this interaction as a one-shot interaction and it turns out you meet this person later on, then it's better to be assistive.'

In other words, she says, 'Under uncertainty entrepreneurs should act under the general assumption that if I do something for you, maybe somewhere down the road I will also get something in return from you or from someone else. It's like planting seeds.'

Of course, there are limits to what an entrepreneur can or should give to others, which is why the authors call for "intelligent" altruism. 'We call it "intelligent" altruism because it's not just blanket driven,' says Dr Kaandorp. 'It's really giving what an entrepreneur can afford to give; just time, for example, or maybe some money – whatever different constraints he or she has will put boundaries on this notion of altruism.'

Finding partners

As the entrepreneurial networking progresses, the entrepreneur will begin to garner interest and find partners who are ready to invest in the venture. Using Dr Kaandorp's term, they "self-select" themselves into the venture. 'It's up to the others to decide whether they want to "buy in" or what they are willing to commit to the venture,' she explains.

Related to the question of what to commit to the venture, one of the guiding principles of the self-selection process, Dr Kaandorp says, is the concept of "affordable loss." In the article, Dr Kaandorp and her colleagues use the example of Boeing's participation in Richard Branson's creation of the Virgin Atlantic airline. When first beginning the airline, Branson connected with Boeing and negotiated the lease of a plane for one year (Boeing thus self-selected itself into Branson's venture).

Boeing was making an investment driven by affordable loss. That is, if Branson's airline was not successful, the manufacturer would not have lost anything by leasing the plane to Branson. The bottom line for partners self-selecting into the venture, Dr Kaandorp explains, is: 'What are they willing to invest or what can they invest while not being sure what the outcomes will be?'

Affordable loss applies to the entrepreneur as well. As Dr Kaandorp notes, leasing a plane for one year was an investment than Branson could afford to lose – if the airline was not successful, then Branson was out just one year's lease. In contrast, buying one or more planes at the beginning of the venture would have been an unaffordable loss for Branson if the venture failed.

Networking model

Within the context described above – entrepreneurs embracing uncertainty by being willing to connect with a wide network of ties who may or may not prove to be helpful, but always being alert to serendipity so that they can leverage any surprises that might occur – how exactly do entrepreneurs manage and organise their networking efforts? In their article in the *Journal of Business Venturing*, Dr Kaandorp and her colleagues lay out a specific step-by-step model for networking by entrepreneurs.

The first step is for entrepreneurs to *assess the means* that they have: whom do they know? What knowledge do they have? How could they help potential contacts?

Once this means assessment has been completed, the entrepreneur starts contacting the network relations they know (ie, *existing* network ties).

"...by starting off with your means, then interacting and reflecting, you're incrementally developing into a direction that you think is vital."

Simultaneously, they contact and connect with *new* network ties. 'They start off with their existing ties and see if they can find common ground they haven't discovered yet,' Dr Kaandorp explains. For example, an entrepreneur might have a relationship with someone in an unrelated domain, but still presents the idea to that person. 'Maybe you will find some undiscovered overlap on the topic of entrepreneurship that you want to explore as an entrepreneur,' she says.

The next step is to reach out to new contacts. 'By first talking to the people they know, entrepreneurs might already discover some more information,' Dr Kaandorp says. 'Then we say they need to contact new others, because they don't know how and when those others will be valuable.' Given the uncertainty of who will be helpful in the short and long run, the wider the net, the better, she says.

Through these open conversations, entrepreneurs find the stakeholders who start to self-select themselves into the venture, she says. Over time, the entrepreneurs networking efforts will shape and change the portfolio of network ties ready to pre-commit to the venture, generating unexpected opportunities and, as Dr Kaandorp and her collaborators write, 'enabling the serendipitous emergence of new entrepreneurial goals.'

Beyond entrepreneurship

Dr Kaandorp believes that uncertainty driven entrepreneurial networking is a powerful approach to networking with applications far beyond entrepreneurship. 'While we describe entrepreneurial networking in the context of new entrepreneurial ventures or start-ups where there's a lot of uncertainty,' she says, 'you could more generally apply it to any situation that features uncertainty.'

As Dr Kaandorp explains, 'You start off with your means, you talk to people about your intentions, people share ideas with you, you think about those ideas, and then you talk to other people. So, by starting off with your means, then interacting and reflecting, you're incrementally developing into a direction that you think is vital.'

One example could be a company's search for innovation or innovative ideas, especially innovations that have a relational component, she says. As with entrepreneurship, innovation involves uncertainty. Thus, a company would assess its knowledge and resources and then seek out information and ideas on innovation from potential partners and contributors.

Entrepreneurial networking could also be applied to job opportunities or career switches, she says: 'You have a feeling that you're not happy in your job or you have too much pressure. And you have some area that you feel is interesting, and you know a few people in that area. So you can start talking to these people. And once you have met these people, maybe new influences will emerge along the way.'

Dr Kaandorp makes another powerful argument for the wide application of entrepreneurial networking: 'It's an approach that is not very costly. As a result, you don't have to know what you're heading for. You can just start and keep it small and simple, and just see where it gets you. So, I think it's very practical.'

In a world of business in which uncertainty might be the only certainty, the outcome creation approach exemplified in entrepreneurial networking can be a powerful new tool in just about any endeavour. ■

The paper, *Toward a dynamic process model of entrepreneurial networking under uncertainty*, written by Yuval Engel, Mariëtte Kaandorp, and Tom Elfring, appears in the *Journal of Business Venturing*, Volume 32, Issue 1, January 2017, Pages 35-51. DOI: http://dx.doi.org/10.1016/j.jbusvent.2016.10.001

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Disruptive start-ups: do they attract more funding?

By ***Timo van Balen, Murat Tarakci and Ashish Sood***

Who doesn't know Sir Richard Branson, the founder of Virgin and a famous serial entrepreneur since his breakthrough with the eponymous record label in the early 1970s? Throughout the Western world, entrepreneurs such as Branson, and their high growth start-ups, are celebrated as the drivers of dramatic commercial and societal changes. However, without the appropriate level of investment, even the most determined entrepreneurs might find themselves and their start-up destined for early failure.

Getting a first round of financing is arguably the most difficult stage of financing for any new venture. Entrepreneurs running start-ups must convince investors. This is not a revolutionary observation. But often investors will have little in the way of concrete information available beyond what the potential investee chooses to say, and may therefore be reluctant to provide financial capital.

Typically, the cry is: 'Entrepreneurs should write a detailed business plan, which should inform investors, right?!' This may come as a shock, but one of the core academic observations is that investors don't look at elaborate business plans in their initial investment decision. They know that there is much unknowable uncertainty, and so intuitively they rely on their perception of the entrepreneur and the message that is conveyed for the start-up.

For example, research finds that entrepreneurs who (through their communication) raise positive perceptions (for example, feelings of warmth, trust and preparedness), who use figurative language, hand gestures to "illustrate" their presentation, and who demonstrate a record of achievement, are more likely to convince investors to provide financial capital.

Additionally, what we observe is that the most successful start-ups (in terms of obtaining financing) are the ones that also communicate a vision: images of the future of the start-up's ecosystem, extending beyond the immediate business in hand, telling us what the venture will achieve in the greater scheme of things.

This informs investors of the substantive value of the venture as an investment opportunity. It makes explicit what the entrepreneur and the venture stand for. Think of Elon Musk's SpaceX, on a daily basis pursuing the implementation of self-landing rockets, so they can be re-used and are more cost-efficient than current offerings.

Musk communicates, inter alia, the eye-catching, even jaw-dropping vision of a future where humankind colonises Mars and explores space. He has proven his ability to raise considerable investments through this ultimate aim, though it has to be acknowledged that more recent eccentric behaviour has shifted attention away from his early success.

However, such outlandish images are not an uncommon conveyance in the entrepreneurial scene. Readers will be familiar with the term *disruption*. The world's media often celebrate successful disruptors; businesses appoint "Chief Disruption Officers", and arguably the most renowned entrepreneur trade show is called TechCrunch Disrupt.

Perhaps the term disruptor has been popularised to such an extent that it might have lost some of its power. But given that many start-ups still purport to be disruptors, we set out to investigate how investors deal with such information, and whether it helps or hurts entrepreneurs in their chances of obtaining a first round of funding.

"Perhaps the term disruptor has been popularised to such an extent that it might have lost some of its power."

Attracting funding

A study we conducted is the first to show that specific thematic contents of entrepreneurial visions might damage an entrepreneur's ability to attract large investments. Equally important, we offer practical advice for entrepreneurial ▸

Disruptive start-ups: do they attract more funding? *(continued)*

By ***Timo van Balen, Murat Tarakci and Ashish Sood***

framing of disruptive visions and highlight the consequences of following it.

We found in our study of 918 Israeli start-ups and a subsequent online experiment with would-be investors that early stage investors perceive start-ups that communicate a disruptive vision as an option for extraordinary returns. More detailed accounts of our findings can be found in articles published in the September 2018 edition of *Harvard Business Review* and in the *Journal of Management Studies*. The findings are ultimately based on data supplied by Startup Nation Central, which is a private non-profit organisation that tracks the Israeli start-up ecosystem and offers an exhaustive platform for investors to scout for promising start-ups

With a disruptive vision, the entrepreneurs raise the idea that their venture can be the next big money-spinning opportunity. A fear of missing out on a potentially significant investment opportunity can drive investors to invest.

Nonetheless, while investors are about 22 per cent more likely to invest in a start-up that is communicating disruptively, the amount of funding they provide is about 24 per cent less than they would provide to a start-up that communicates without a disruptive vision. For a typical Israeli venture that meant getting US$87,000 less in the Seed round, and US$361,000 less in the series A round.

That raised an interesting question: why would investors be more willing to invest and less generous at the same time? To answer this question, we recruited 203 participants with previous investment experiences for our follow-up online experiment.

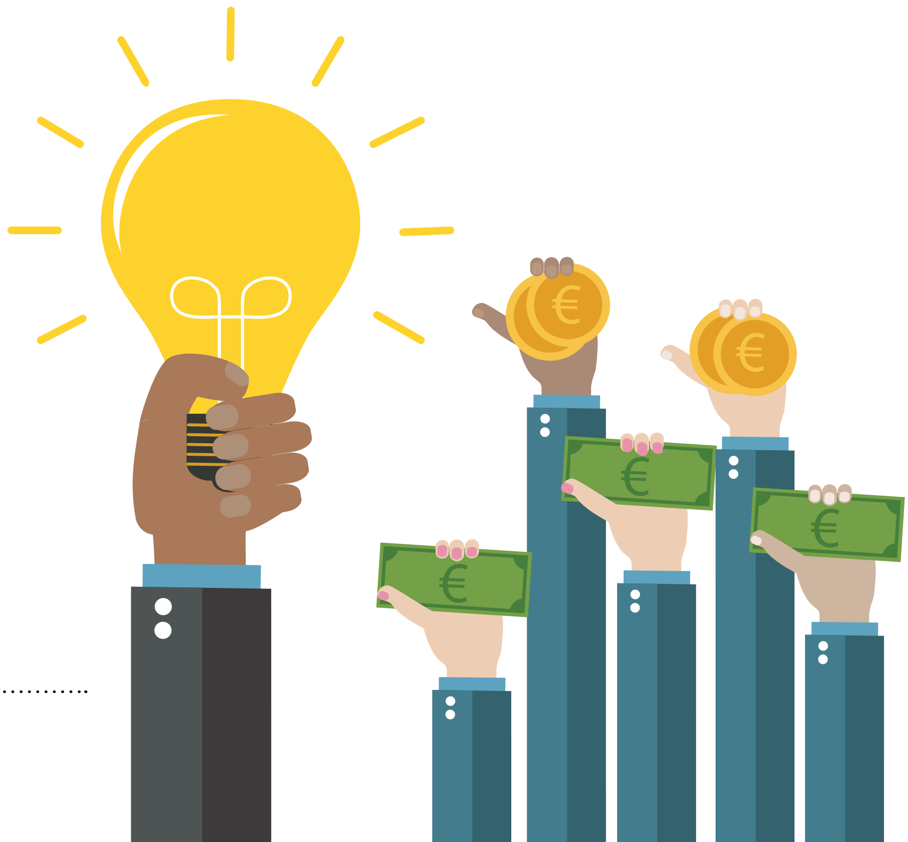
We randomly split them into two experimental conditions in which we presented them with an investment opportunity into a venture. As the venture was taken from our Israeli sample it was identical in both experimental conditions. The only difference was that we manipulated the venture's description to present the venture as a disruptor or not. We then asked participants to assess the upside potential of the venture, and to decide whether and how much they'd invest in the venture.

Next big thing

What the experiment revealed was that investors treated disruptive ventures like options. They wanted the chance to be part of "the next big thing": a venture that has the potential for extraordinary returns. But they didn't want too many eggs in any one basket at once. This is the real options logic we described earlier.

The potential for disruption raises both the appeal and the perception of risk by investors, and so they do invest – but only a lower amount. Initial investment thus becomes an option on future investment once a company's initial promise has been confirmed. This can be neatly described as real options logic. If a company does not succeed after first round financing, investors will not invest in the next round. We believe that our paper is the first in its field to quantify the power of such dramatic communication.

Start-ups, as already noted, need financing for development and growth, but being too brash will reduce the amount they can raise from investors.



This holds true across many sectors, geographies and age groups. To paraphrase an old proverb: softly, softly catches investors.

Prior research on disruption and impression management has argued that entrepreneurs' impression management efforts are key in the disruption process. Impression management activities have also included communications about venture activities, innovations, capabilities, achievements, and affiliations that help regulators, competitors, suppliers, and investors to embrace the venture. These communications attempt to establish identities that distinguish the venture from other market constituents in the eyes of investors.

Such well-established identities define who the entrepreneurs are and what the ventures do. These presentations aim to showcase the venture as 'desirable, proper, or appropriate within some socially constructed system of norms, beliefs, and definitions.'

Our own research raises a number of other tangential but related issues. When should we stop referring to a start-up, even the most disruptive of the breed, as a start-up? Put differently, when does a start-up become part of the establishment that it intended to disrupt? And how will today's disruptors face up in turn to the next wave of start-ups determined to disrupt them?

But all this is literally another story, or two, or three. In the meantime, we will conclude with an ironic, counter-intuitive thought. To disrupt, an entrepreneur needs money. To attract money, the entrepreneur needs to stand out from other ventures looking for investors. However, while doing so they need to avoid becoming too different from what investors understand in the context of early stage entrepreneurship. In order to disrupt, even the most potentially disruptive disruptor must also conform… ■

This article draws its inspiration from the paper *Do Disruptive Visions Pay Off? The Impact of Disruptive Entrepreneurial Visions on Venture Funding*, written by Timo van Balen, Murat Tarakci and Ashish Sood, and published in the *Journal of Management Studies*, 2018;00:1–40. DOI: https://doi.org/10.1111/joms.12390

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"The potential for disruption raises both the appeal and the perception of risk by investors, and so they do invest – but only a lower amount."

RSM Expertise

Specialising in the disciplines of supply chain management, business information management, and innovation management, the Department of Technology & Operations Management deals with the effective management of how to develop, produce and deliver products and services.

The department's world-class scholars develop scientific knowledge and train students to become reflective practitioners who can successfully manage and design supply chains, information systems and innovation processes. In doing so, the department combines scientific ambition and rigour with practical relevance, both in research and in teaching.

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Navigating alliances with bigger partners

By ***René Bakker***

Start-ups face many life-and-death choices as they grow. One of the most crucial is how to work with larger partners. On the one hand, the surest way for a start-up to get the resources it needs is to form an alliance with a much bigger and more established company. On the other, interacting with that larger company can be dangerous.

As an example of that possible danger, how do you stop a company 20 times your size from paying too little for your idea – or even stealing it outright? My colleague, Joris Knoben, Professor of Business Economics at Radboud University, and I have given a lot of thought to what we call this "guppy versus whale" problem. We never found the data to study the question empirically, however, until I stumbled onto something I thought might work. While I was doing research at the Australian Centre for Entrepreneurship Research in Brisbane, I happened to run across a book called *The Register of Australian Mining*.

It's about 3,000 pages long and five centimetres thick, and amounts to a telephone book of all the mining businesses in Australia, including their boards of directors. To me as a Dutchman, it looked very exotic – we don't have many diamond and silver mines in the Dutch outback – but more importantly, I could see right off that Joris and I could use this information to answer our guppies-versus-whales question.

As I did more research on the register, I found that it had been published for 31 years. Eventually, I flew out to Perth and persuaded the people who compiled this data to share 10 years of electronic files with us; files we could use to see whether there were organisational reasons that some mining industry "guppies" survived in a sea of mining sharks and whales while most disappeared.

"The meek shall inherit the earth, but not its mineral rights." ***J. Paul Getty***

Guppies and whales

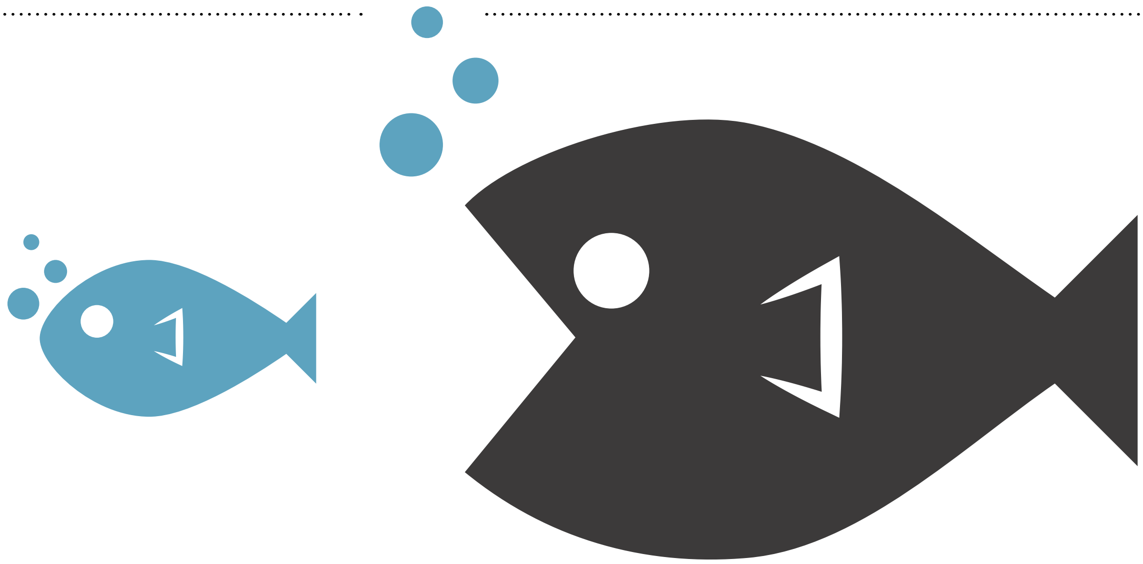
The Australian mining ecosystem has two important parts: the major mining companies and what they call junior miners. The junior miners are generally start-ups organised around a few key individuals who go out and prospect to find a promising resource.

The major miners, on the other hand, are typically large companies that operate portfolios of extraction projects. The risks of failure are so high that most of the majors no longer look for new mineral deposits themselves – that front-end work is mainly done by the junior miners.

The relationship between the majors and the juniors is highly symbiotic. The days of walking around in the Australian outback and finding a gold nugget at the side of the road or in a riverbed are long gone. To mine minerals now requires considerable capital, technological know-how, and considerable knowledge of how to manage the "green and red tape" of environmental and governmental regulation. Just as the majors look to the juniors to handle the time-consuming and risky work finding deposits, the juniors rely on majors to support the costly and time-consuming process of turning hunches into reality.

Finding the right partner is difficult for both parties. The major miner must choose winners out of a field in which 90 per cent of projects fail. The junior miners need to find partners who will treat them fairly.

Of course, the risks are highest for junior miners. These start-ups may be "muscled out" of a promising asset by a larger company through intimidation, hostile takeovers, or the threat of expensive litigation. Disputes are generally settled in court, where the major miner's large legal team tends to overwhelm the junior miner's attorneys. One junior miner executive told us:



That is the hardest part, going through the court process and the money involved in that when you find something valuable. What happened to us is, we were discussing a farm-out with [redacted to preserve anonymity] and we hadn't reached any agreement but we had some discussions and then when everyone had realised how valuable this was [..] they took us to court and in the end we had to settle. It cost us 400,000 dollars. [..] We had worked with them and talked with them, [yet] [..] they almost took us out. [..] You've got to fight for everything you've got.

This tends to happen fairly frequently in the mining industry, at least in Australia. One junior miner executive told us: 'I can give you countless situations where people who had good deposits were given two to five million dollars and then told to piss off and the other people were able to turn that into billions of dollars.'

As oil tycoon J. Paul Getty once quipped: 'The meek shall inherit the earth, but not its mineral rights.'

Who you know

When we traced the relationships of 915 junior miners and 331 major miners in our 10 years of data, we found that junior miners that were doing well in their partnerships with major miners tended to structure their alliances in a quite typical way: they made sure that their strategic alliances (joint projects) were accompanied by a board interlock – that is, that both the junior miner and the major miner appointed the same individual to both of their boards. We call such partnerships *pluralistic ties*.

When we interviewed mining executives about this phenomenon, we found that three factors explain this behaviour. First, having a member on both boards is likely to facilitate communication and help build trust between the junior miner and the major. Second, alliance partners often have a hard time assessing and monitoring each other's incentives, capabilities and effort, and a board member with a seat at both tables is better positioned to assess what's actually going on.

Finally, a pluralistic tie may act as a safeguard against the major miner taking advantage of the junior, because the interlocked board member is generally a more senior person in the industry. We believe having a powerful partner on the board is a strong signal of the start-up's legitimacy and an important defensive mechanism, as the member is in a position to tell others in the industry about any bad behaviour that goes on.

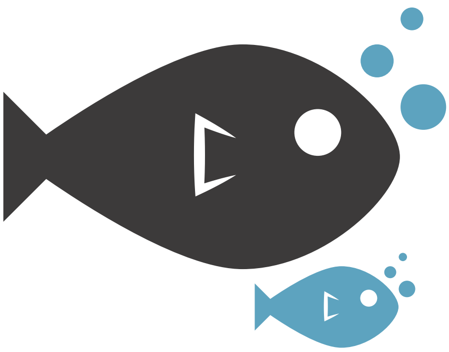
We had suspected that all this would be the case, but another pattern surprised us: such tie formation is relatively rare. Overall, only 10.1 per cent of juniors formed the kind of pluralistic ties (consisting of a board interlock *and* an alliance) that we found to be particularly beneficial.

What's also salient about our findings is the strength of the effects we find. Although our empirical models indicate that the formation of stand-alone alliances and the formation of pluralistic ties each has a positive, statistically significant effect on start-up performance, the latter's effect size is roughly three times larger. The magnitude of the effect is such that one standard deviation increase in asset growth (our measure of start-up performance) requires a start-up to form 3.4 stand-alone alliances, but only 1.2 pluralistic ties. Importantly, the difference between pluralistic tie formation and stand-alone alliances is not simply due to the formation of board interlocks per se.

We controlled for the number of board interlocks and found it had no statistically significant effect on performance. That is, the effect of four pluralistic ties (four pairs of alliances and board interlocks) is stronger than that of the formation of four stand-alone strategic alliances and four stand-alone board interlocks. In line with our theory, this implies that the pluralistic overlap of a board interlock and an alliance *with the same partner* drives the effect.

We found a second pattern that was even more salient: it turned out that the sequence of tie formation was very important. When the partnership commenced with a board interlock, and the partners only then later formed a strategic alliance, this had the largest positive effect.

"...our research suggests it pays to look for strong relationships in the form of pluralistic ties."



Friends first, cash later

For entrepreneurs, this result suggests an important lesson: it's not only who you know what matters, *but when you get to know them*. Whether you are looking for gold in the Australian outback or in Silicon Valley, our research suggests it pays to look for strong relationships in the form of pluralistic ties. Really getting to know your partners prior to forming a strategic alliance has many benefits. Venture capitalists too may want to bear this in mind. ■

This article draws its inspiration from the paper *The guppy and the whale: Relational pluralism and start-ups' expropriation dilemma in partnership formation*, written by Joris Knoben and René Bakker, and forthcoming in the January 2019 issue of the *Journal of Business Venturing* (Volume 34, Issue 1, Pages 103-121). DOI: https://doi.org/10.1016/j.jbusvent.2018.05.008

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More information about the department and its work can be found at:
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How companies can implement the SDGs

By ***Rob van Tulder***

Most business schools are keen to promote their "green" agenda. At RSM, we pride ourselves on the substance behind that claim. Our recent publication, *Business & The Sustainable Development Goals: A Framework for Effective Corporate Involvement*, offers both an overview of the extensive research we have conducted in this area and a step-by-step guide to how companies can turn their sustainability vision into a reality.

Business & The Sustainable Development Goals shares some of the most important insights gained over the past two decades of Corporate Social Responsibility and sustainability research at RSM. This research has involved high-profile cross-sector collaborations with business, civil society, and government organisations, and has led to the development of an integrated, well-informed vision of the most effective organisational strategies for sustainable development.

Our vision starts with the UN's 17 Sustainable Development Goals (SDGs), agreed upon by world leaders in 2015. These goals capture the most urgent social, economic and environmental challenges facing the world today. They also represent an important paradigm shift: emphasising the opportunities presented by these goals and their potential to deliver significant value to both business and society.

But the SDGs are guidelines, not blueprints for action. *Business & The Sustainable Development Goals* presents companies with a framework for using these goals effectively in practice to drive their sustainability agenda forward. The insights condensed within this framework can also inform our teaching, shape new learning modules at RSM, and spur our research towards ever higher levels of engagement with the world's "grand challenges."

Major paradigm shift

Climate change, poverty, resource scarcity, deprivation: all are topics that have been heavily debated for years, with a strong focus on the dire consequences of a failure to intervene. Why are the SDGs any different in helping us deal with these challenges?

The UN's SDGs represent a major shift in how we think about sustainable development and the role(s) played by different societal actors. These goals move away from a focus on negative scenarios and look at opportunities for collaboration, partnering, new business models and all-new methods for solving the aforementioned grand challenges. This approach is very much in line with what science has shown to be the conditions required for positive change: the creation of goals that are achievable within a realistic time frame and agreed upon by the majority of stakeholders. While far from perfect, the SDGs represent a truly positive new direction and change agenda.

Michael Porter and Mark Kramer (2011), among the most influential thinkers in the area of strategic management, have already stated the case for business to apply its capital and skills to scale new concepts, products and services that create shared value at both the local and global level. The SDGs are guidelines for companies to do precisely this.

The real tipping point, however, will come when perceptions of these goals shift within the business community. Companies should begin to view the SDGs not as challenges but as vibrant ▸

"Companies should begin to view the SDGs not as challenges but as vibrant new opportunities..."

How companies can implement the SDGs *(continued)*

By ***Rob van Tulder***

new opportunities with the potential to create sustainable value (and stability) for all stakeholders.

The case for organisations to incorporate the SDGs in their strategic visions is powerful. The question then becomes not so much *why* but *how*, and who should address what? Dealing with complex, grand challenges requires new approaches and modes of collaboration that are often outside the roles and responsibilities of governments, companies and citizens.

Our book presents readers with a "scale of wickedness" via which the challenges addressed by the SDGs can be evaluated and thus the degree of collective action required understood. We also explore the societal origins of these problems, and who best should take responsibility for which issue, based on the primary (or fiduciary) duties of different societal sectors.

Perhaps most important of all, however, is our emphasis on viewing wicked problems as wicked *opportunities* for the private sector. Companies should think of these as opportunities – not from a CSR or philanthropic or reputation point of view – but for growth that can be integrated into their corporate strategy, their approach to innovation, their supply chain management. And they can do this by putting the right complementary partnerships in place.

"One thing is clear: wicked problems cannot be solved using traditional management styles or organisational structures."

Adressing wicked problems

The problems addressed by the SDGs are systemic, complex, and interconnected, with each appearing to be a symptom of another. So distinct are they in their breadth, ambiguity and level of complexity that they have been attributed a new moniker: wicked problems. Who is responsible for solving the world's wicked problems, and which challenge should be addressed first?

One thing is clear: wicked problems cannot be solved using traditional management styles or organisational structures. Because they are systemic and ambiguous, they require collaboration between all spheres of society, and the development of "approaches" rather than the search for a single, definitive solution.

Solving the world's wicked problems from a scientific perspective requires a whole new mindset – which is an inspiring challenge for us at RSM. Business research is no longer a study of profit maximisation but value creation: we need all-new ways of doing research that does not shy away from complexity and avoids the search for short-term, one-size-fits-all solutions. A thousand possible approaches exist to these issues, many of which require all-new business models. Our job at RSM is to identify the most relevant of these approaches, and to work proactively with stakeholders to turn these new business models into reality.

Applying the SDGs

Since the start of the millennium, business has been recognised as not just a cause of wicked problems, but an important part of their solution. This is a major departure from the mindset of old, which marked sustainable development as a government issue. The reality is that corporations are in a powerful and unique position to drive progress towards the 17 goals thanks to their ability innovate, to take risk, to develop new practices, to scale, to invest, and to employ (among many other strengths). The private sector plays a vital role in fulfilling the SDGs.

The business case for doing so is very strong. The SDG agenda offers a "trillion dollar" opportunity for business: the Better Business, Better World report estimated that achieving the 17 global goals could open up an estimated US$12 trillion in market opportunities in four economic systems: food and agriculture, cities, energy and materials, and health and well-being.

But how exactly can companies do this? In the book, we present a detailed strategic repertoire for how companies can implement the SDGs at all possible levels of intervention: addressing market failure; limiting negative externalities; creating positive externalities, and stimulating collective action – as well as the conditions under which these strategies need to be implemented.

Four layers exist for how companies can work with the SDG agenda. The first is the licence to exist: the fiduciary duty of a company to produce products that do not create negative externalities, such as tobacco and its impact on global health. Second is the licence to operate, which requires companies to create partnerships with societal organisations that can help limit their negative externalities. The third is the licence to scale: when companies produce products or services that are highly effective in addressing an issue represented by an SDG, and can therefore be scaled in partnership with government and societal groups. This is an area in which we see the immense positive impact business can have in helping the world reach these targets.

Finally, we have the licence to experiment. This is where a company aims to integrate SDG targets deeply within their operations. We see this in the companies that are the front runners in sustainability: these goals are embedded in their operations whether it is within their supply chain strategy or innovation strategy or product development and they do so with the support of external partners.

The SDGs pose a promising, yet challenging agenda for corporations. For both small and large corporations, walking the talk is not easy. Companies are faced with the challenge of internally aligning SDGs within their organisation, and creating partnerships to help the company move ahead. They must create a strategic fit between their corporate ambition and the SDGs.

But companies can turn these opportunities into investments by embracing new business models, cross-sector partnerships, inclusive development, linking macro challenges to micro approaches, and adopting new management techniques. The strategic steps are now clear - and equally so, the business case to do so. Companies must make the move from narrow, "business as usual" models, to broader, pro-active, purpose-driven business models. ■

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Do we really understand the numbers we receive?

By ***Christophe Lembregts***

Marketing and branding departments spend millions on research and focus groups to determine the best way to sell their products to consumers. Governments, organisations and the media are all heavily invested in bringing numbers across to ordinary people. And now, new research from RSM indicates that the way people process information about numbers might have an important role to play in how they evaluate choices.

When it comes to the products we buy, how much does the information associated with those products influence our decisions? For instance, what lies behind the bold logos and branding of your favourite diet soft drink or low-fat/low sugar product? Often, it is the small-print list of ingredients and the grams of fat or sugar the product contains. But what if people have less understanding of these numbers than these companies assume? And what if the way companies presented numbers made a difference in how we evaluate their products?

If a typical soft drink's label describes the contents as having 55 grams of sugar, how many people can actually visualize that to really understand what it means? What if, instead, the label said "11 cubes of sugar"? What if the size of a mansion was described as 10 rooms instead of 600 square meters? And what if walking distance was described as four blocks instead of 400 metres? Many people would find this much easier to visualize and really see the individual elements. This in turn would help them evaluate their choices in a more informed way.

A recent series of studies we conducted shows that people do process units of measurement differently, depending on their ability to process numbers in general. This has to do with a seemingly arbitrary component of quantitative information – the unit. It works like this: some people are better able to evaluate quantitative information if it is described with what are called *discretizing units*. A discretizing unit describes something in terms of a number of more easily understood elements.

Evolutionary link?

Our studies demonstrate that using information like these discretizing units can actually increase perceived differences between quantities. In one study, for example, we described two experimental sessions to participants as 'two minutes versus 13 minutes of doing tasks.' However, when we described these same two sessions as 'two tasks versus 13 tasks of one minute each,' study participants felt there to be a larger difference. In another study, participants were more likely to prefer a less sugary soft drink if sugar quantity was described in cubes rather than grams, as in the example given above.

Just why do people have an easier time evaluating quantitative information if it is presented in discretizing units? Well, we don't know for sure, but we speculate that it might have to do with an ancient evolutionary system that appears to be present from the moment we are born. Humans – and many other animals – seem to be equipped with a natural ability to evaluate the size of collections of visual elements. In other words, "five fingers" instead of "five". The use of discretizing units may tap into this ancient reference system, making quantitative information easier to evaluate.

One size doesn't fit all

There are two important caveats to our findings. First, the ability to evaluate perceived differences in size through discretizing units seems to go down when people are presented with larger collections of elements. In other words, if somebody is asked to compare two versus 13 units, the discretizing effect is clear. The effect is far less pronounced if people are asked to compare 113 versus 125 units. This also ties into our theory that discretizing units are linked to our evolutionary history – animals and people become less sensitive to differences between large numbers.

Second, the effect of discretizing units is less important for certain peo-

ple. For instance, people who are very good at processing numbers show less of an impact. This makes perfect sense, because they can already and intuitively evaluate what the numerical values mean. Discretizing units also have less of an effect for people who are very knowledgeable about the field in which the information is offered. For example, people who are really into dieting probably know that 65 grams of sugar is quite a lot of sugar. Translating this into cubes will probably not change much.

However, in many areas in which the receiver of information may not be an expert, or for people who generally have difficulty processing numerical information, discretizing units seem to make an important difference.

"What if the way companies presented numbers made a difference in how we evaluate their products?"

Making every unit count

The crossroads of marketing and consumer behaviour is partly defined by quantitative information. So what does the effect of discretizing units imply in this area? We've already seen how the example of listing sugar as "cubes" could affect the way companies market sugary products. Now let's look at an ecological-based example: the way in

Do we really understand the numbers we receive? *(continued)*

By ***Christophe Lembregts***

which car companies describe the fuel efficiency of their vehicles. This is an increasingly important differentiator as people choose between regular, hybrid or fully electric models.

What if car companies started to describe fuel economy information as 'one-litre jerrycans per 100 kilometres' instead of 'litres per 100 kilometres'? It is likely that people would be able to make a better-informed decision. What about the way in which ecological organisations inform the public about the dangers of climate change? Might people be more supportive of environmental causes if the amount of melting arctic ice were specified in terms of 'one-ton blocks of ice' instead of 'tons of ice'?

"...using information like these discretizing units can actually increase perceived differences between quantities."

Further research

Clearly, our research into this is just the tip of the iceberg. We are also at the speculative stage in terms of real-world applicability – we are the first to admit that we conducted our studies in carefully controlled experimental situations. Therefore, we encourage others to investigate framing numerical information so that it is more intuitive for people – both in experimental situations and out in the field. After all, it could have important implications for companies, organisations and governments across the globe as they communicate their messages to the public – many of whom have difficulty processing numerical information. ■

The paper *Making Each Unit Count: The Role of Discretizing Units in Quantity Expressions*, written by Christophe Lembregts and Bram Van den Bergh, was published in the *Journal of Consumer Research*, volume 45. Issue 5. DOI: https://doi.org/10.1093/jcr/ucy036

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