

FAKE NEWS AND REAL VIOLENCE:

WHY BUILDING SOCIAL MEDIA LITERACY IS A NATIONAL SECURITY IMPERATIVE

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Yes, Fake News Can Kill

On a muggy April evening during the early days of the COVID-19 lockdown in India, an elderly gentleman named Chikne Maharaj Kalpavrukshagiri, his companion and their driver were headed to a funeral in the Indian state of Maharashtra. Unbeknownst to them, a false rumor claiming there was a gang of organ-harvesting thieves driving through the area began to spread like wildfire on WhatsApp. When the three men stopped their car at a local checkpoint, a group of villagers, dangerously on-edge due to the disturbing news they had read on WhatsApp, grew suspicious and began to panic. They assumed these three men must be part of the fictional organ-harvesting gang. The villagers approached the car and started brutally attacking Mr Kalpavrukshagiri and his companions with sticks and axes. The local police was completely overwhelmed, unable to prevent the violent mob of over 115 people from injuring five policemen and beating the three travellers to death.

WhatsApp killings, as they are often called, have claimed over two dozen lives in India since 2017. In neighboring Bangladesh, four people were killed in communal clashes on October 20, 2019, incited by a false rumor that a Hindu man had insulted the Prophet Muhammad on Facebook. A few months earlier, on May 21 – 23, violence at the polls in Indonesia marked the “world’s first instance of online disinformation leading to election-related riots” (Ishak, 2019).

As someone who works on countering violent extremism and misinformation, I frequently encounter individuals whose limited understanding of social media makes them vulnerable to manipulation and, in many cases, instruments of violence. A mother of two in East

Java, Indonesia, told me she agreed to meet a terrorist recruiter because he “was constantly sending Facebook messages and this was the only way to make him stop”. When I told her Facebook has a feature that allows users to block other accounts, she was shocked. A 17-year-old boy from India’s Uttar Pradesh admitted he joined a lynch mob because the WhatsApp message instructing him to do so was sent by an account with the username Baba (a local term for father) and he thought that meant the message must be from his father.

As social platforms are increasingly exploited to incite violence and destabilise nations, social media literacy – teaching the world’s 4 billion users how to use social media safely and responsibly – is a national security imperative we can no longer afford to ignore.

Social Media Literacy Has Not Kept Pace with the Rapid Growth of Social Media

The number of social media users worldwide has more than tripled since 2010, with 376 million new users added in the past year alone (Chaffey, 2020). However, a constant stream of new features and apps makes even experienced users vulnerable to manipulation. According to one study, a majority of young professionals with experience using social media were unable to discern between real and fake news over 50% of the time (Mindedge, 2018).

Takedowns and Labels are Not Enough

Most attempts to make social media safer focus on removing or labeling dangerous content instead of making users more resilient to it. Facebook employs an army of analysts to remove posts that incite violence. In the aftermath of the

2020 US elections, Twitter navigated the flood of election-related misinformation by labelling over 300,000 tweets as disputed or potentially misleading (Fung, 2020). Though important, such measures are ultimately insufficient. Banned accounts can reappear using aliases and content that was taken down or labelled can be re-posted with slight modifications. Fake news and misinformation are here to stay – instead of pretending we can prevent them, we should build our resilience to them by increasing social media literacy.

All Hands on Screen

Meaningful gains in social media literacy will require a coordinated effort by technology companies, law enforcement and civil society. Companies ought to consider embedding in-app tutorials for first-time users that illustrate how to use the app safely and responsibly, perhaps with a quiz at the end which individuals must pass in order to set up an account. Even the popular video game FIFA requires players – no matter how experienced they may be – to practise moves in a simulation before playing a match.

Law enforcement should partner with community members to launch grassroots social media literacy campaigns. Not only are such programs cost-efficient, they are hyper-localised and relatively easy to evaluate. For example, in March 2018, police officers in India partnered with town criers and village elders across 400 villages – going door-to-door to teach residents how to identify fake news and warn them about the dangers of forwarding hateful messages (Biswas, 2018). The program was deemed effective because since its conclusion, WhatsApp killings in that region have completely stopped, even though they have continued to occur in other parts of the country.

Civil society organisations should conduct training programmes that build the capacity of netizens to recognize and report cyber harassment and bullying. Such training can have an immediate impact, as evidenced in a recent webinar hosted by the UN titled “Can Technology Counter Hate Speech.” A young beneficiary of a social media literacy training organised by Mythos Labs and UN Women in Bangladesh recalled how the two-

day training taught her to recognize and report hate speech on various social media platforms. Shortly after the training, she was the victim of online harassment on Facebook. Using what she had learned, the teenager reported the comment through proper online channels and Facebook’s content moderation team took action against the perpetrator, preventing him from harassing this young woman and others on social media (UN Women, 2020).

Since most low-income netizens limit their internet use to apps that consume low amounts of data, civil society organisations should create social media literacy modules that can be accessed on apps such as WhatsApp or Facebook Lite. For example, using chatbot technology to design a WhatsApp Open Online Course (WOOC) for social media literacy would be an effective way to educate large masses of internet users without significantly adding to their data costs.

Since the minimum age for joining most platforms is under 15, social media literacy should be a mandatory subject in schools. This should include modules on how to identify telltale signs of manipulated content, how to report misinformation on various platforms and how to utilize trusted online resources for fact-checking. Children are likely to be more receptive to such training than adults with hardened political biases.

Perhaps Mr Kalpavrukshagiri and his companions would still be alive if their attackers had recognized the signs of a fake WhatsApp message riddled with typos and written in all caps. If internet users in Bangladesh and Indonesia had been taught how to discern between credible news sources and clickbait, deadly communal clashes and election riots might not have taken place. Those who wish to incite violence and chaos have already invested heavily in learning how to use social media – it is time the rest of us do so as well.

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REFERENCES

Biswas, Soutik. (2018, September 25). The Indian policewoman who stopped WhatsApp mob killings. *BBC*. Retrieved from <https://www.bbc.com/news/world-asia-india-45570274>

Chaffey, Dave. (2020, August 3). Global social media research summary August 2020 *Smart Insights*. Retrieved from <https://www.smartinsights.com/social-media-marketing/social-media-strategy/new-global-social-media-research/>

Fung, Brian. (2020, November 12). Twitter says it labeled over 300,000 tweets around the election. *CNN Business*. Retrieved from <https://edition.cnn.com/2020/11/12/tech/twitter-election-labels-misinformation/index.html>

Ishak, Yousof. (2019, September 2). Disinformation, Violence and Anti-Chinese Sentiment in Indonesia's 2019 Elections. *ISEAS Perspective*. Retrieved from https://www.iseas.edu.sg/images/pdf/ISEAS_Perspective_2019_67.pdf

MindEdge (2018, May 9). *New MindEdge Critical Thinking Study: Young Professionals Still Struggle to Identify Fake News*. Retrieved from <https://www2.mindedge.com/page/news/article/2018.05.09>

UN Women (2020, January 6). Webinar: *Can Technology Counter Hate Speech?* Retrieved from https://www.youtube.com/watch?v=GuAUXBbq9kM&feature=emb_logo

NUDGING, BY FINDING THE RIGHT WORDS:

HOW WE SAY IT IS AS IMPORTANT AS WHAT WE SAY

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ABSTRACT

Words have power – choose them well and we generate promise, hope, positivity; be careless with them and they can become a most hurtful weapon. In the context of work, our choice of words, or how we frame messages can also make or break an engagement and impact the effectiveness of our initiatives. This paper introduces the concept of message framing, discusses how various frames may be used to better reach out to our target audience, and suggests factors that may influence the effectiveness of frames. It also covers complementary concepts such as personalisation and operational transparency which may be used together with frames to propose messages that are nuanced, relevant and effective. The paper also ends with a discussion on how message frames can be further utilised in the communication efforts of the Home Team.

INTRODUCTION

To make sense of the world, our brains provide a structure and connect the information received to create a picture in our minds that is akin to an invisible frame surrounding our ideas. Without such “frames”, we would be overwhelmed by the information around us and would not know what to focus on. Frames break up the vast amount of information that we receive daily into manageable chunks (Carini, 2014; Scheufele and Tewksbury, 2007). In doing so, a lot of the information deemed less relevant, accessible or interesting is automatically filtered out. This has implications for organisations like the Home Team when seeking public attention and mindshare.

Our communication efforts are integral to achieving the Home Team’s mission to work as one with the community to keep Singapore safe and secure. This paper discusses how Behavioural Insights (BI) can be tapped to support the Home Team’s communication efforts, focusing mainly on message framing but also covering other complementary concepts such as personalisation and operational transparency,

with the objective of proposing messages that are nuanced, relevant and effective. The paper will cover examples from elsewhere as well as Home Team applications and will also articulate the considerations for using certain strategies.

MESSAGE FRAMING TO INCREASE RELEVANCE AND APPEAL

In the universe of nudges, we can probably consider message framing to be one of the most ubiquitous. Every piece of information that we see or get in our daily life is framed in some way, albeit some more effectively than others. Even if message framing as a concept is new to you, you are already using it all the time as you navigate through discussions with your family, friends and colleagues.

As the term suggests, message framing aims to bring the content that we want to communicate into focus. *We know that people’s minds already select and connect information automatically, so we can go with the grain and make our message more salient and likely to be picked up.* A key way to achieve this is to ensure that our message is relevant and appealing to the audience.

Frames work on the premise that there can be several ways of looking at an issue, which can then lead the issue to be understood as having very different implications (Chong and Druckman, 2007). The research, however, informs us that the changes need not be drastic – subtle variations in how an issue is presented can produce sometimes large changes in opinion. For instance, what precedes a sentence or how an issue is talked about in alternative phrasings can have profound effects on how it is perceived or understood.

What are the various ways in which we can frame an issue?

It is possible to frame or re-frame a message or situation to bring across a certain perspective in so many ways. Some of the common frames explored in the research are described below:

Positive vs. negative framing

In the context of framing effects in psychology, positive and negative framing refers to the scenario where we present two sides of the same coin – one where a positive slant is used and the other, negative but the content is essentially the same. The old expression about the glass being half empty or half full is a perfect example.

In their seminal study in 1979, psychologists Amos Tversky and Daniel Kahneman found that participants responded very differently depending on how an option was framed. Only 22% of participants chose an option when it was framed as having the impact of losing 400 lives (sure loss), while 72% chose it when it was framed as saving 200 (sure gain). The researchers posited that they responded this way because people are instinctively wired to be attracted to sure gains (think “sure win” lucky draws) and to avoid sure losses. Similar examples that have been used to illustrate framing effects include the yogurt example (20% fat or 80% fat-free) and mortality rate (10% mortality or 90% survival). **While the respective set of options present the same facts, people tend to respond better when the positive, rather than the negative attribute is emphasised.**

Positive framing can also refer to taking a positive perspective of an issue that may otherwise be seen to be negative. In general, the research

suggests that positive framing is helpful. Dolan et al., 2010 suggests that the behaviour shaping of troubled youth is best done through positive incentives, e.g. rewards and encouragement for pro-social/ adaptive behaviour, rather than to impose penalties for bad behaviour. Research on happiness at work also suggests that supervisors, when communicating negative information should consider re-framing the message to place emphasis on what needs to be changed to do better work rather than to put the spotlight on one’s incompetence, for better outcomes (Sharot, 2017).

Gain vs. loss

Another key finding from the research on framing is that people dislike losing more than they like winning. Studies have found that the smallest gain that people need to balance a loss is a gain 2.5 times the size of the loss. **People are thus very susceptible to frames that tap on their aversion to loss.** Hannan et al. (2005) found that employees were significantly more productive when they worked under a penalty contract (base salary of \$30, but a penalty of \$10 would be imposed if performance targets were not met) vs. those who worked under a bonus contract (base salary of \$20, but they would be given a bonus of \$10 if performance targets were met). People tended to put in more effort to avoid the penalty than to earn the bonus although they were of the same amount.

That said, it is also noted from the research that a loss frame may not always work better as its effectiveness appears to depend on the context and the characteristics of the person it is influencing. Loss-framed messages have been found to be more effective for “punishment-sensitive” people while gain-framed messages, “reward-oriented” people (Yan et al., 2012; Teng et al., 2019). Loss frames are also found to work better for people involved in an issue while gain frames better attract people who are not involved (Maheswaran and Meyers-Levy, 1990). This has been corroborated by a 2015 study by the Cornell Food & Brand Lab which found doctors to be more influenced by loss-framed health messages, plausibly because they possess the related knowledge and feel a duty to maintain a healthy lifestyle. Conversely, gain-framed messages are more effective for reaching out to the general

public who have less first-hand knowledge of the consequences of their actions, and who may feel that healthy behaviours are a choice rather than a duty. Older and younger respondents may also respond differently; Biroli et al. (2020) found that framing the predicted impact of COVID-19 in terms of lives saved rather than deaths increased reported protective behaviours, but only amongst the older respondents.

Values-based framing

Frames can also be used to engage people's deeply-held values to motivate concern and action. In particular, frames that invoke longstanding cultural values have been found to be very persuasive (Chong, 2000). In a recent example, researchers from the Global Centre for Evidence and Implementation proposed that policymakers nudge citizens to adopt the required preventive behaviours for COVID-19 by finding a way to appeal to people's values and what is "best for all". For instance, we could dissuade citizens from making in-person visits to the elderly by situating the advisory within the value system of the individual. The researchers suggested that the messaging could be along the lines of, "You care for your elderly relatives, and the greatest act of care right now is to keep your distance from them." Such framing aims to align itself with that of people's value systems so that the required change becomes more justified, reasonable and sustainable.

Other common frames

Self-interest, communitarian and challenge frames are often used to encourage pro-social behaviours. Using the objective of encouraging volunteering as an example, a self-interest frame highlights how an individual can benefit from volunteering, the communitarian frame highlights how others in the community benefit, and the challenge frame urges the person to take up the challenge (that is not for all) and volunteer.

While Lim's 2015 study found that non-volunteers responded best to a communitarian frame to consider volunteering, Lee's 2015 study found that a self-interest frame which emphasised career incentives worked better than a communitarian frame in increasing the number of applications for a community health worker position in Zambia, and also attracted higher quality candidates who exerted

more effort on the job. A 2015 study by Behavioural Insights Team, the UK company spun off from the Nudge Unit in the British Cabinet Office, found that framing an advertisement as a challenge, and asking potential candidates if they are the type that thrive in challenging environments, was twice as successful in increasing the click through rate of the job advertisement for a teaching position in Somerset compared to using a communitarian frame.

Whillans et al. (2017) also tested an agentic appeal, "what each person can do individually to reduce poverty" against a communitarian frame, "what all of us can do together to reduce poverty", to see which would work better to get people to make a donation. They found that wealthier participants tended to respond better to the agentic frame, which tapped on their ego and emphasised individual impact, while the less wealthy respondents responded better to the communitarian frame. **The above studies demonstrate that it could be useful to consider other frames other than the communitarian one to elicit pro-social behaviours. Where applicable, we could also consider tapping on more than one frame, that are complementary, to strengthen our appeal.**

It is also useful to note that while we want to incentivise volunteering behaviour, it is important to avoid framing the decision from a social to a monetary one; Heyman and Ariely (2004)'s study found that the provision of monetary incentives had the effect of reducing pro-social behaviour as respondents assumed that incentives are in place because the social norm is to not contribute. Providing monetary compensation can also 'crowd out' intrinsic motivation to contribute, and people may be unwilling to contribute in the future without further incentives (Deci et al., 1999). It may thus be better to give a social reward, e.g. appreciation or recognition, in such a scenario.

Are there factors that affect the persuasiveness of frames?

As mentioned earlier, the effectiveness of frames can vary depending on whom it is applied to and in which context. Studies on the efficacy of framing effects have found the strongest influencer to be people's pre-dispositions towards an issue (Haider-Markel and Joslyn, 2001; Barker, 2005;

Lau and Schlesinger, 2005). For instance, those who have strong opinions on gay-related issues are less receptive to frames that contradict them (Brewer, 2001). **The timing of frames is thus important – they can be more powerful if they act as an initial anchor before a strong opinion on an issue has been established.** They may also be more effective if they are **delivered at strategic moments, e.g. at key milestones when people enter a new life-stage or situation** (e.g. during their birthday, pregnancy, when they are moving house, etc.) as people are more willing to make positive changes during a ‘fresh start’.

Another important factor that impacts the persuasiveness of frames is the messenger – the weight that people give to information is greatly dependent on the reactions they have to the source of the information (Webb and Sheeran, 2006). Whether one likes or trusts the messenger or source can have a huge impact on how receptive he or she is to the message.

Studies have also found the framing effect to be more prevalent in older adults, plausibly because their cognitive resources may be more limited and may therefore favour information that is presented in a more accessible way.

INCREASING PERSONALISATION TO INCREASE RELEVANCE

Personalisation can also be used to increase the relevance of our messages to our target audience. Drowning in a sea of information, people are more likely to register stimuli that is novel, accessible and simple, and especially salient are stimuli that relate to their personal experiences and circumstances (Dolan et al., 2010). The power of personalisation was demonstrated in a Behavioural Insights Team trial in 2012, where it was found that the response to text message reminders was the most positive when the message began with the recipient’s first name. The version of the reminders that included the amount recipients owed to the Government also elicited better response than not including any personalised information at all. **In general, the more specific or relevant a message is to the recipient, the more powerful it is likely to be.**

When information is personalised, it also signals to the recipient that the messenger understands his

needs and has taken the effort to communicate relevant information. Conversely, ineffective personalisation comes about when we segment too broadly, use generic messages and fail to appreciate the recipient’s context.

A message can be made more personal by addressing it specifically to the recipient, having a named individual send the message and using personal pronouns such as ‘I’ and ‘we’ instead of more generic organisational references (Behavioural Insights Team, 2015). Information irrelevant to the recipient should also be omitted.

INCREASING OPERATIONAL TRANSPARENCY TO ELICIT UNDERSTANDING, COMPLIANCE AND TRUST

In various studies across government and non-government settings, increasing operational transparency – i.e. to provide more insight as to what is going on behind the scenes, our processes or decisions – has been found to increase engagement, satisfaction, support and trust among our stakeholders (Buell, 2019). Drawing from this concept, **it is also very important to communicate the rationale for why we want people to do something in our communications.** Intuitive as this may sound, it is not something that is always done. Organisations tend to communicate what needs to be done but not necessarily why or how it benefits the person. When we clearly communicate our rationale for the request, people better understand the underlying reason or principles, and the behaviour may be observed not only because it is required but also because it makes sense to do so. Giving people an insight into our thought processes and decisions also serves to build greater understanding and trust in the organisation.

USE OF PICTURES

In 1991, a study by Miniard et al. argued that **a picture can be used as an argument when it is congruent with the message** (e.g. promoting the benefits of giving up smoking while showing someone in good health). The researchers showed that a picture, like a good argument, influences beliefs and attitudes about the purpose of the message and increases the message’s persuasiveness. This was later corroborated by Verliac et al. in 2011 when they found that health prevention messages including

pictures of unhealthy mouths better persuaded people to give up smoking, regardless of the framing they received. A recent online experiment conducted by the Behavioural Insights Team also found that bright infographics and minimal text on handwashing posters help to improve the retention of key preventive COVID-19 messages. We can thus consider using pictures if they help with our argument and are appropriate.

HOME TEAM APPLICATIONS OF BEHAVIOURAL INSIGHTS

The Behavioural Insights Unit (BIU) in the Research & Statistics Division of the Ministry of Home Affairs Headquarters has worked with our Home Team Departments, Statutory Boards and MHQ Divisions since 2014 to apply Behavioural Insights to support policy and operational objectives. We also started working with our consultants from the Behavioural Insights Team in 2016.

One of the Home Team's earliest nudging studies carried out in 2014 sought to encourage members of the public to attend the **Community Emergency Preparedness Programme (CEPP)** after a significant

fire incident in a HDB residential block. CEPP, conducted free-of-charge by the Singapore Civil Defence Force, imparts useful skills such as first aid, CPR/AED, and how people can better protect themselves in emergencies such as fire and terrorist attacks. To encourage residents of the block to sign up, we tested two message frames: (i) a self-interest frame which emphasised how residents and their family members would benefit from their attendance at the CEPP; and: (ii) a communitarian frame which emphasised how their community would benefit, especially vulnerable groups like the elderly and young children (see Figure 1). To make our messages more personalised, residents were also informed that we were speaking to them because of the recent fire in their block, and that the CEPP slots were specially set aside for them. Both message frames and the additional personalisation were found to have a huge impact on raising the interest of residents to attend the CEPP (compared to just extending an invite without providing a specific frame), although the communitarian frame was found to work slightly better (Nelson et al., 2016).

Figure 1. Self-interest vs. communitarian frame in CEPP engagement script

Self-interest frame

We are conducting a door-to-door visit to share with YOU fire safety tips on how you can keep YOU AND YOUR FAMILY safe. We also want to share with YOU information about how YOU can get involved in SCDF's Community Emergency Preparedness Programme. People with greater knowledge of fire safety are more likely to escape fires unharmed. So we really wanted to speak with you on how YOU can better protect YOURSELF AND YOUR FAMILY from the dangers of fire.

Communitarian frame

We are conducting a door-to-door visit to share with RESIDENTS fire safety tips on how they can help keep EVERYONE in the block safe. We also want to share with RESIDENTS information about how EVERYONE can get involved in SCDF's Community Emergency Preparedness Programme. The elderly and young children are more vulnerable to becoming victims of fire. People who live near neighbours with greater knowledge of fire safety were less likely to become victims of fire. So we really wanted to speak with you on how RESIDENTS can better protect THEMSELVES AND THEIR NEIGHBOURS from the dangers of fire.

Message frames were also utilised to encourage eligible motorists to attend the **Safe Driving Course (SDC)**. Extended to those who accumulate eight demerit points and above, the SDC teaches motorists defensive driving and good road habits to help make the roads in Singapore safer for everyone. Both the gain and loss frames were used in the letter to the motorists – the benefits of attending SDC was made salient, i.e. that the course covers useful skills, and four demerit points can be cancelled from the motorist’s record upon completion. It also utilised

a loss frame, emphasising that this presented a limited opportunity to deduct four demerit points. The letter was also much more personalised – it is now addressed directly to the recipient instead of “Dear Sir/ Madam”, and we also listed the number of demerit points that the motorist had and informed him of the number of points he will have following his successful completion of the SDC (see Figure 2). Together, the nudges were helpful in increasing the proportion of motorists who registered for and completed the SDC.

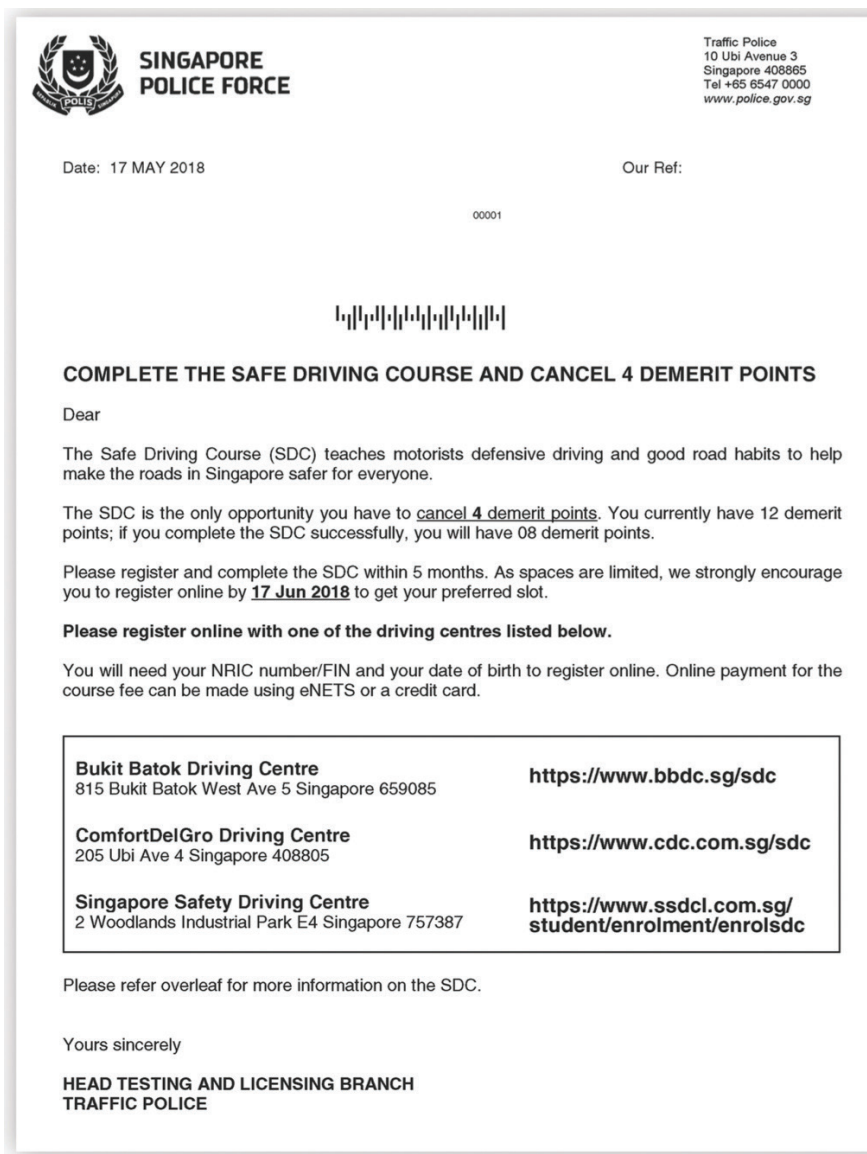


Figure 2. Gain frame, loss frame and personalisation in SDC letter

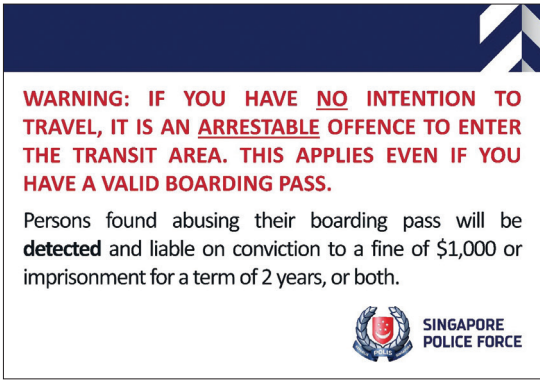


Figure 3. Loss frame to emphasise certainty of detection and arrest in airport advisories

Being an enforcement agency, much of our work also touches on inducing compliance. We have applied loss frames to a number of our enforcement letters to highlight the penalties involved for non-compliance, e.g. to highlight in the Notice of Traffic Offence that traffic offenders who do not pay their traffic fines on time have to go to court and pay a

higher fine, and to inform registered societies that have not been submitting their annual returns that their societies may be deemed to be inactive or defunct if they continue to fail to do so. To deter the misuse of flight boarding passes, we revamped the advisories placed around the airport terminals to emphasise the certainty of detection and arrest for those who enter the transit areas of Changi Airport without the intention to travel, explaining that it is an offence to do so (see Figure 3).

Increasing the level of personalisation has also helped to increase the proportion of vehicle owners who furnish the driver's particulars online following a traffic offence. The precise steps for how SINGPASS and FIN users can submit the drivers' particulars online is included in the revised **Notice to Furnish Driver's Particulars** (see Figure 4) to make the online option attractive and easy to use for both groups of motorists. For those with SINGPASS, we also additionally informed them in the letter that their information has been pre-filled for them online.

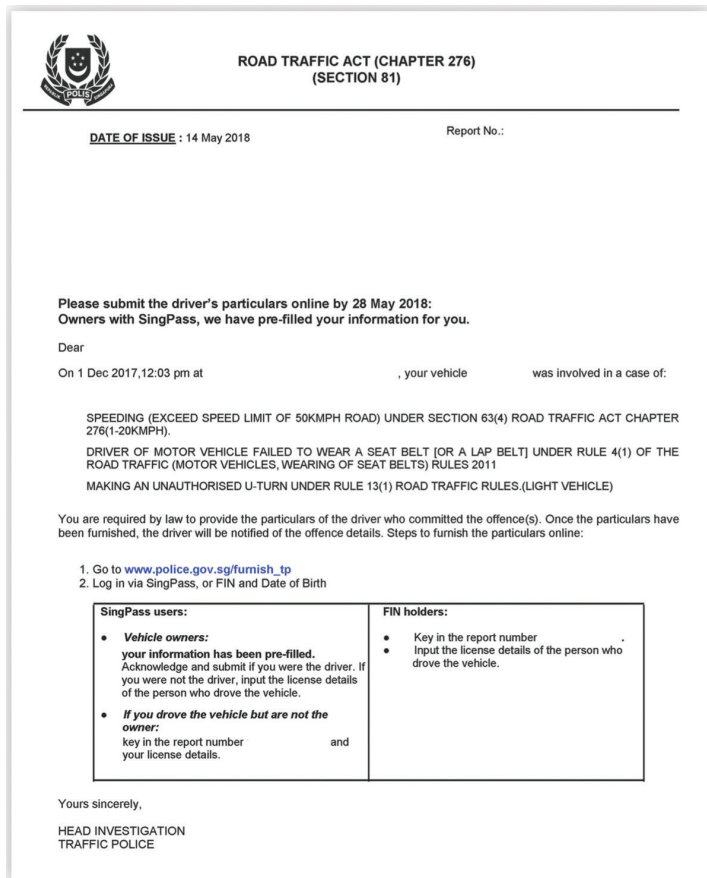


Figure 4. High level of personalisation in the "Request for Driver's Particulars" letter

Finally, the concept of positive framing was utilised recently to support changes in our supervision regime for drug supervisees. In 2019, the **Central Narcotics Bureau** worked with us to prepare for the impact of legislative changes to the duration of drug supervision from two to five years. In order to ensure that new drug supervisees would not be de-motivated by the perceived extension, CNB applied BI principles to craft positively-framed briefing scripts that their officers could refer to when briefing drug supervisees about their reporting conditions.

CONSIDERATIONS AND DISCUSSION

There is a lot of room to continue to apply the insights from the research on message framing to improve outcomes. We know that positive framing of information and negative situations are almost always appreciated. We also know that different groups of people may respond to certain frames differently – suggesting that there is room to cater different nudges to different groups for increased efficacy, e.g. to consider administering gain frames to the elderly since we know that they respond better to them. It may also be useful to combine complementary message frames to strengthen our message, e.g. an appeal to volunteer can start with a communitarian frame but also coupled with a self-interest one (articulating how the individual can also benefit from volunteering), and perhaps also ending off with a challenge or agentic frame for an extra boost! We have done this to some extent in the Home Team by combining gain and loss frames in the SDC letter to encourage the recipient to look at the request from various perspectives to hopefully nudge a positive response.

A number of frames effective for nudging volunteerism could be useful for recruitment as well. For instance, depending on the nature of the job we may be able to utilise the communitarian or self-interest frames. We could then strengthen the base frame with a challenge frame to suggest to potential candidates that the job may not be an easy one but we are inviting those game for a challenging but rewarding career to join us. Similarly, an agentic frame would have the impact of reaching out to people who respond well to the notion of individual contribution and impact, especially for challenging roles. Values-based

framing can also be considered in promoting our enforcement-related roles, reaching out to those who respond to ethics or moral framing.

The timing of the frame also matters – frames may have minimal impact if one already has a very strong conflicting view on an issue. It can however be very effective if it is delivered at the right moment. For example, a couple moving into a new home might be much more receptive to equipping their home with fire-fighting equipment as compared to a couple who has lived in their home for 10 years, owing to the “fresh start” effect. The messenger of the information also plays a crucial role as to whether the message is well received, and we may want to choose our messengers carefully.

Finally, we should aim to make our messages as personalised and relevant as possible so that our target audience is more likely to pick them up. It is also good practice to explain our rationale for why we want people to do something, to nudge not only compliance but also motivation to undertake the behaviour, greater understanding and trust.

EVALUATING OUR STRATEGIES, AND CONSIDERING OTHERS

As with all other nudges, we should build in a mechanism to test our frames to evaluate their effectiveness. This is particularly relevant since there are many plausible frames. People also react to frames differently because of their individual differences and also because the context of the issue matters. Testing allows us to find the frame that best reaches out to more people in our target group on a particular issue.

We may also want to consider tapping on other strategies to achieve the desired behaviour. For example, if we wanted to encourage volunteerism in the Home Team, apart from using a message frame, we also need to consider how can we make sign-ups easy to do, and how volunteers can be continually motivated. It is likely that behaviours that are more complex and longer-term in nature will require a bundling of strategies and interventions at various timepoints of a person’s journey with us, so we should aim to formulate nudges that are more holistic and enduring.

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REFERENCES

- Barker, D. (2005). Values, Frames, and Persuasion in Presidential Nomination Campaigns. *Political Behavior* 27(4), 375-394.
- Behavioural Insights Team (2012). *Applying Behavioural Insights to Reduce Fraud, Error and Debt*. London: Cabinet Office, UK
- Behavioural Insights Team (2015). *Behavioural Insights and the Somerset Challenge*.
- Behavioural Insights Team (2020). *Testing the Efficacy of Coronavirus Messaging*.
- Biroli, P., Bosworth, S., Giusta, M. D., Girolamo, A. D., Jaworska, S. & Vollen, J. (2020). *Framing the Predicted Impacts of COVID-19 Prophylactic Measures in Terms of Lives Saved Rather than Deaths is More Effective for Older People*. Bonn: Institute of Labor Economics.
- Brewer, P. (2001). Value Words and Lizard Brains: Do Citizens Deliberate About Appeals to Their Core Values? *Political Psychology* 22(1), 45-64.
- Buell, R. W. (2019). Operational Transparency. *Harvard Business Review*, March-April 2019, 102-113.
- Carini, G. (2014). The Role of Frames and Cultural Values. In *The Bridges Project: New expertise for policy in an age of uncertainty*. Counterpoint. Retrieved from https://counterpoint.uk.com/wp-content/uploads/2018/04/The-Bridges-Project_final-publication1.pdf
- Chong, D. (2000). *Rational lives: Norms and values in politics and society*. Chicago, IL: University of Chicago Press.
- Chong, D. and Druckman, J.N. (2007). Framing Theory. *Annual Review of Political Science* 10, 103-126.
- Cornell Food & Brand Lab (2015, January 29). *Which Health Messages Work?* ScienceDaily. Retrieved from www.sciencedaily.com/releases/2015/01/150129094345.htm
- Deci, E., Koestner, R., Ryan, R., & Eisenberg, Nancy. (1999). A Meta-Analytic Review of Experiments Examining the Effects of Extrinsic Rewards on Intrinsic Motivation. *Psychological Bulletin* 125(6), 627-668.
- Dolan, Paul, Hallsworth, Michael, Halpern, David, King, Dominic, & Vlaev, Ivo. (2010). *MINDSPACE: Influencing Behaviour for Public Policy*. London: Institute of Government.
- Haider-Markel, D., & Joslyn, M. (2001). Gun Policy, Opinion, Tragedy, and Blame Attribution: The Conditional Influence of Issue Frames. *The Journal of Politics* 63(2), 520-543.
- Hannan, R. L., Hoffman, V. B., & Moser, D. V. (2005). Bonus versus penalty: does contract frame affect employee effort? *Experimental Business Research* 151-169
- Heyman, J. E. & Ariely, D. (2004). Effort for Payment. *Marketing Faculty Publications* 11.

- Lau, R., & Schlesinger, M. (2005). Policy Frames, Metaphorical Reasoning, and Support for Public Policies. *Political Psychology* 26(1), 77-114.
- Lee, S. (2015). *Three Field Experiments on Incentives for Health Workers*. Doctoral dissertation, Harvard University, Graduate School of Arts & Sciences. Retrieved from <http://nrs.harvard.edu/urn-3:HUL.InstRepos:17467500>
- Lim, D. (2015). *Essays on the Determinants of Prosocial Behavior in Singapore*. Doctoral dissertation, Harvard University, Graduate School of Arts & Sciences. Retrieved from <http://nrs.harvard.edu/urn-3:HUL.InstRepos:17467196>
- Maheswaran, D. & Meyers-Levy, J. (1990). The Influence of Message Framing and Issue Involvement. *Journal of Marketing Research* 27, 361-367.
- Mildon, R., Abdo, M. & Lewis, J. (2020, 3 Jun). Reshaping Behaviour and Systems in a Post-COVID Policy Landscape. *Ethos*. Retrieved from <https://www.csc.gov.sg/articles/reshaping-behaviour-and-systems-in-a-post-covid-policy-landscape>.
- Miniard, P. W., Bhatla, S., Lord, K. R., Dickson, P. R., & Unnava, H. R. (1991). Picture-based persuasion processes and the moderating role of involvement. *Journal of consumer research* 18(1), 92-107.
- Nelson, L., Ng, S., Kassim, M.Z., Tay, S., Hiscox, M., & Lim, D. (2016). Using Behavioural Insights to Encourage Public Participation in the Community Emergency Preparedness Programme. *Home Team Journal* 6, 40-52.
- Scheufele, D., & Tewksbury, D. (2007). Framing, Agenda Setting, and Priming: The Evolution of Three Media Effects Models. *Journal of Communication* 57(1), 9-20.
- Sharot, T. (2017). *The Influential Mind: What the Brain Reveals about our Power to Change Others*. New York: Henry Holt and Company.
- Teng, L., Zhao, G., Li, F., Liu, L., & Shen, L. (2019). Increasing the Persuasiveness of Anti-Drunk Driving Appeals: The Effect of Negative and Positive Message Framing. *Journal of Business Research* 103, 240-249.
- Tversky, A., & Kahneman, D. (1981). The Framing of Decisions and the Psychology of Choice. *Science* 211(4481), 453-458.
- Verhiac, J. F., Chappé, J., & Meyer, T. (2011). Do Threatening Messages Change Intentions to Give Up Tobacco Smoking? The Role of Argument Framing and Pictures of a Healthy Mouth Versus an Unhealthy Mouth. *Journal of Applied Social Psychology* 41(9), 2104-2122.
- Webb, T., & Sheeran, P. (2006). Does Changing Behavioral Intentions Engender Behavior Change? A Meta-Analysis of the Experimental Evidence. *Psychological Bulletin* 132(2), 249-268
- Whillans, Caruso, & Dunn. (2017). Both selfishness and selflessness start with the self: How wealth shapes responses to charitable appeals. *Journal of Experimental Social Psychology* 70, 242-250.
- Yan, C., Dillard, J. P. & Shen, F. (2012). Emotion, Motivation, and the Persuasive Effects of Message Framing. *Journal of Communication* 62, 682-700.