PAR PUBLIC ADMINISTRATION REVIEW

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Viewpoint
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The INSPIRE Framework: How Public Administrators Can Increase Compliance with Written Requests Using Behavioral Techniques

Abstract: *Public administrators rely on written communications to send information to citizens and stakeholders, and they are among the heaviest users of the postal service. Behavioral science research has identified several techniques that public administrators can use to increase compliance with written requests and, in turn, increase effectiveness. Currently, however, many written communications from government bodies are not written in a manner that utilizes these techniques. It remains an ongoing challenge for public administrators to identify, understand, and use these techniques in the written communications sent by their organizations. This article presents a framework capturing seven prominent techniques in a simple mnemonic—INSPIRE—that is already being used by several government bodies in Australia. It also provides practical examples of how to use each technique and demonstrates that using these techniques could result in large aggregate improvements in effectiveness and socially desirable outcomes of public administrators' written communications.*

Public administrators rely on letters and other written communications to send information to citizens and stakeholders. Governments in most countries continue to be heavy users of postal services (PwC 2013; Turnbull 2016), and they are increasingly using digital services to deliver written communications to citizens, businesses, and stakeholders (Hassan, Shehab, and Peppard 2011; Titah and Barki 2006). Although many of these written communications include attempts to influence behavior (e.g., a request to return specified information), most letters from public administrators do not currently use techniques from the applied behavioral sciences to maximize their impact. If they did, even small percentage improvement in compliance could have important aggregate benefits, given the high volumes of letters, emails, and other types of written communications sent by governments (Cialdini, Martin, and Goldstein 2015).

There are many examples in which incorporating behavioral techniques in written communications has helped increase public administrators' impact. To name just a few, incorporating behavioral techniques helped U.K. tax authorities collect £5.6 billion more in overdue revenue in a single financial year (Martin 2012), reduced U.K. doctors' overprescribing of antibiotics by 73,406 doses during a six-month trial (Hallsworth et al. 2016), helped attract more diverse job applicants (Linos 2018), and encouraged more people to use online e-government services (Castelo et al. 2015; Faulkner, Jorgensen, and Koufariotis 2018). Additionally, letters from government are often criticized for being unclear, cold, and lacking in empathy (e.g., Faulkner et al. 2018, Wenzel 2006), which applying behavioral principles may help address.

In recent years, there has been a growing interest in how psychology and behavioral science can help public administrators be more effective (Bellé, Cantarelli, and Belardinelli 2018; Grimmelikhuijsen et al. 2017; Oliver 2015; Thaler and Sunstein 2009). Since Thaler and Sunstein's (2008) influential book *Nudge* illustrated how small changes to environments and policies can help individuals behave in ways that benefit themselves and others, the amount of research on applying behavioral techniques in government contexts has grown substantially.

A vast and growing literature in behavioral sciences has identified several techniques that can be used in

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written communications to influence behavior. Much of this literature has used rigorous methods, such as randomized controlled trials, to test the effect of different messages on specific behaviors, including tax compliance (Hallsworth 2014; Wenzel 2006), fine payment (Behavioural Insights Team 2014), and use of e-government services (Castelo et al. 2015; Faulkner, Jorgensen, and Koufariotis 2018). However, there have been no attempts to combine techniques from this growing literature into a simple framework for policy makers to easily refer to and use to influence behavior through written communications. Although there have been previous attempts to bring together drivers of behavior into simple frameworks (e.g., Dolan et al. 2010; Dolan et al. 2012; Thaler and Sunstein 2008), these attempts have not focused specifically on written communications and have not provided explicit guidance on how to apply the techniques in practice. Given that public administrators most commonly use written communications to interact with citizens and stakeholders, developing a framework specific for this purpose is a valuable endeavor.

The INSPIRE framework presented here serves as a mnemonic that captures and summarizes seven techniques that public administrators can use to increase compliance with their organizations' written communications. Having such a framework is not only useful for practitioners; it is also useful for academic research because it integrates several behavioral techniques that influence citizens responses to written communications and invigorates further research to explore these effects (see Dolan et al. 2012).

The INSPIRE Framework

The INSPIRE framework is designed to be a practical tool for improving written communications (e.g., letters, emails, notices on websites) in which there is a request to perform a specific behavior. Every letter of the framework represents a technique that can be used in written communications. Each of the techniques in the framework—implementation intentions, norms, salience, procedural justice, incentives, reputation, and ease—has been demonstrated in previous research to increase compliance with written requests to perform a behavior under certain conditions. The framework is summarized in table 1.

Implementation Intentions

Considerable evidence exists of a gap between people's stated intentions and their actual behavior (Hagger and Luszczynska 2014; Webb and Sheeran 2006). Explanations for this disparity include an individual's insufficient ability to self-regulate, ill-defined or overly ambitious intentions, external distractions, weak motivations, or simply forgetting to act (Gollwitzer and Sheeran 2006; Hagger et al. 2016; Sheeran et al. 2005). These factors can all get in the way of people's intentions to act (Rogers et al. 2015).

The concept of implementation intentions was developed to help close this gap between intentions and actual behavior (Gollwitzer 1999). Implementation intentions are "if-then" plans that enable an individual to plan when he or she will perform a specific behavior. While intentions merely specify a desired future behavior or outcome, the "if" component of an implementation intention details the when and where it will occur (e.g., a date, time, or location), with the "then" specifying the behavior (Gollwitzer 2014). The assumption is that making plans is an effective strategy to encourage behavior by reducing distractions, addressing tendencies to procrastinate or forget, and avoiding overly optimistic estimates of individuals' intentions to act (Hagger and Luszczynska 2014; Rogers et al. 2015).

Implementation intention interventions can take several forms. At their simplest, they involve a pen-and-paper exercise that prompts people to write down when and where they will complete an action. Given the relative ease and low financial cost involved, this pen-and-paper approach remains one of the most popular delivery tactics (Hagger and Luszczynska 2014). However, digital and internet platforms, face-to-face interviews, and phone-based methods have also been used to prompt implementation intentions (Craciun et al. 2012; Luszczynska, Sobczyk, and Abraham 2007). These processes are sometimes aided by a checklist of possible cues and responses that can encourage individuals to develop more tangible implementation intentions (Conner and Higgins 2010). Regardless of the approach, the aim of associating the desired behavior with a tangible future moment remains the same (Milkman et al. 2011).

Experimental trials support the assumption that implementation intention prompts can help people follow through on their intentions across a variety of domains (Gollwitzer 2014; Gollwitzer and Sheeran 2006; Rogers et al. 2015; Social and Behavioral Sciences Team 2015). For example, Milkman et al. (2011) used implementation intention prompts to encourage employees to visit workplace vaccination clinics. Employees were randomly assigned to one of three conditions that informed them of the dates and times of workplace vaccination clinics. A condition that stated, "Many people find it helpful to make a plan for getting their shot. You can write yours here," and provided spaces to write down the day, month, date, and time, resulted in a statistically significant increase in vaccination rates compared with the control condition in which no prompt was included.

While systematic reviews indicate that implementation intentions have a reliable effect on behavior on average (e.g., Adriaanse, Vinkers et al. 2011; Bélanger-Gravel, Godin, and Amireault 2013; Gollwitzer and Sheeran 2006), Hagger et al. (2016) identified a

Table 1 Summary of the INSPIRE Framework

Technique	Description	How to Apply
Implementation intentions	Implementation intentions use "if-then" plans that link situational cues with goal-directed action responses.	– Ask readers to write down "when and where" (time of day/day) they intend to undertake actions – Insert boxes in part of the letter where recipients can list the day, date, and time they will perform the relevant behavior
Norms	Injunctive norms refer to beliefs about what is socially approved or disapproved of by others. Descriptive norms refer to beliefs about how most other people behave in similar circumstances.	– Provide feedback on behavior of letter recipient compared with peers/or others in similar situations, especially when the comparison is with good behavior performance (e.g., 9 out of 10 people return their tax on time) – Carefully select a comparison group with which the audience identifies – Avoid the boomerang effect by including a positive reinforcement (e.g., smiley face) when recipient is already performing well
Salience	Properties that make a letter stand out and attract attention and differentiate it from other similar letters.	– Use different colored backgrounds – Provide handwritten signatures – Use recipients name – Use registered mail – Stamp letter with red "PAY NOW" notice (where appropriate) – Use multiple stamps
Procedural justice	Procedural justice emphasizes the fairness of a process, including provision of accurate information about the process, lack of bias, consistent procedures, and respectful treatment.	– Use communications that are polite, respectful, and written in a manner that preserves the dignity of recipient – Provide reasoning of why the recipient has received the letter – Explain the procedures as they apply to everyone – Explain recourse options
Incentives	Receiving a beneficial consequence (reward) in response to a particular behavior increases the likelihood of that behavior. Incentives motivate individuals to perform a specific behavior.	– Offering monetary incentives can be effective – Offering nonmonetary (donations, prize draws, gifts) incentives is more effective than no incentive – Match incentive size to size of request – Inform readers of the negative consequences of inaction (disincentives) – Check that incentives do not crowd out intrinsic/social motivations – Appropriate for one-off behaviors but not necessarily for sustained change
Reputation	The reputation or credibility of the source of the information is an influential factor in communications and can be used to further persuade readers.	– Consider who the message should come from – Present source before the message – Enhance credibility through inclusion of an in-group member on the message – Include supportive quotes from credible experts

Table 1 Continued

Technique	Description	How to Apply
Ease	Make compliance with instructions easy. Ensure the letter is easy to read and the written instructions are clear and make the target behavior straightforward.	– Make use of content hierarchy; place most important information at the top and relegate details to an information sheet – Check readability of text – Use sufficient text size – Include headings and subheadings – Include clear instructions in an active voice – Avoid acronyms and jargon – Use diagrams or lists to simplify complex requests or processes – Divide complex requests into small steps

number of factors that might magnify or diminish that effect. These factors include the difficulty of performing the intended behavior (Luszczynska et al. 2011; Webb, Christian, and Armitage 2007), personality traits such as impulsivity (Churchill and Jessop 2011), weak intentions that suggest a lack of motivation in the first place (Sheeran, Webb, and Gollwitzer 2005), confusing or nonsalient prompts (Adriaanse, Gollwitzer et al. 2011), whether the behavior is strongly habitual (Webb, Sheeran, and Luszczynska 2009), and the number of plans required to perform the behavior. Research suggests that multiple plans can weaken intentions and reinforce the difficulty of achieving multiple goals (Dalton and Spiller 2012; Verhoeven et al. 2013).

While the foregoing factors suggest the need for further research to investigate the optimal conditions for applying implementation intention techniques, the general trend of results to date highlights that they can provide a relatively easy, low-cost way to bridge the intention-behavior gap when simple, low-effort, and one-off behaviors are involved.

Norms

Norms are "rules and standards that are understood by members of a group, and that guide and/or constrain social behavior without the force of laws" (Cialdini and Trost 1998, 152). Two reasons have been suggested why individuals are guided by norms: individuals strive for social acceptance, and individuals gain information from the way others behave (Cialdini, Reno, and Kallgren 1990).

The influence of norms on human behavior has been demonstrated in a variety of areas, including littering (Cialdini, Reno, and Kallgren 1990), energy conservation (Alcott 2011; Schultz et al. 2007), and financial donations (Martin and Randal 2008). Although there are also studies in which social norms have had no effect (John and Blume 2018; Silva and John 2017) or even unintended negative effects (John and Blume 2018), systematic reviews have shown the influence of norms on several types of behavior, including eating behavior (Robinson et al. 2014) and intentions to use technology (Schepers and Wetzels 2007).

Norms can be separated into injunctive and descriptive norms (Cialdini, Reno, and Kallgren 1990). Injunctive norms refer to beliefs about what should be done, while descriptive norms refer to beliefs about what most others do in the same situation. Studies drawing on a combination of injunctive and descriptive norms—by informing people that many others both approve of and engage in a desired behavior—have been successful in increasing the uptake of desirable behaviors (e.g., Schultz, Khazian, and Zaleski 2008). It is interesting to note that a meta-analysis of studies aimed at improving health behaviors (through an online delivery mode) suggested that descriptive norms influence behavior more strongly than injunctive norms (Webb et al. 2010).

When an undesired behavior is more common than the desired behavior, it can be challenging to use norms to convince people to adopt the desired behavior. Cialdini (2003) argued that some campaigns emphasizing the magnitude of a problem, such as littering, can in fact be counterproductive as they convey a descriptive norm that a sizeable number of people litter. Information about descriptive norms may also lead to undesired behaviors when delivered to subgroups that perform better than the comparison group. For example, Schultz et al. (2007) conducted a study in which participants were provided with written feedback about how their energy use compared with their neighbors (a descriptive norm). This information led to a reduction in energy usage in higher-consuming households, but lower-consuming households increased their energy use. However, this "boomerang effect" (Schultz et al. 2007, 430) has not been uniformly reported, with some other studies not encountering it in high-performing participant subgroups (e.g., Allcott 2011; Prince et al. 2014). In the absence of certainty about whether descriptive normative feedback might result in a boomerang effect, it is advisable for the author of the written communication to monitor the impact of this kind of feedback on high-performing subgroups early on. Alternatively, the author could target descriptive normative feedback only at subgroups with a low level of engagement in the desired behavior. Another way to address this effect might be to add an injunctive norm when giving feedback to well performing subgroups. In their study, Schultz et al. (2007) counteracted the boomerang effect by combining the descriptive norm with an injunctive norm in the form of a hand-drawn smiley face expressing approval for households that used less energy and a sad face for those that used more energy than their neighbors. However, using a similar approach to Schultz et al. (2007), Allcott (2011) found the presence of different injunctive norms was most likely *not* the reason for the absence of boomerang effects in his study.

Finally, a systematic review on eating behavior found that norms are more influential if they apply to a group that individuals feel a part of, as opposed to an out-group. In fact, if individuals consider a group to be "socially undesirable," they might even behave contrary to what is the norm in that group (Robinson et al. 2014, 424). For the application of norms in letters and other forms of written communications, this means that the author of the written communication should carefully select a reference group that the audience identifies with.

Salience

Salience is "a property of a stimulus that causes it to stand out and attract attention" (Fiske and Morling 1996). People are exposed to numerous visual stimuli on a daily basis, many of which are unconsciously filtered out. Salient visual stimuli—for example, flashing lights, bright signs, and catchy slogans—are more likely to demand attention (Dolan et al. 2012).

Evidence from primary studies has shown that using techniques to make letters more salient can influence behavior. For example, Castelo et al. (2015) conducted a study designed to encourage more Canadians to renew their motor vehicle license online, rather than in person. They altered the content of a standard mailed renewal letter by using a blue background behind the key message in an otherwise black-and-white letter and by enhancing the salience of the benefits of online renewal (e.g., "instant and easy renewal online"). The modified letter led to an increase of between 1 percent and 2 percent in online renewals. While this may appear modest, because of the high transactional volume of these letters, this resulted in an estimated savings of Can$28,000 during the eight-week trial alone, which translated to approximately $612,000 annually.

Evidence from systematic reviews focusing on strategies to increase survey response rates found that individuals were more likely to respond when the written correspondence was personalized and received using a premium letter delivery service. Four reviews, including a meta-analysis of 14 randomized controlled trials (Scott and Edwards 2006), reported that personalization, hand-signing, and/or handwriting of letters and/or addresses on envelopes were effective strategies for increasing the chances of an individual performing the desired behavior (Edwards et al. 2002; Edwards et al. 2009; Scott and Edwards 2006, VanGeest, Johnson, and Welch 2007). Use of registered mail, first-class post, and courier delivery were also found to be effective in three reviews (Edwards et al. 2002; Edwards et al. 2009; VanGeest, Johnson, and Welch 2007). Other strategies include using first-class stamps when return mailing is required rather than using franked envelopes (Edwards et al. 2009; VanGeest, Johnson, and Welch 2007); using colored ink (Edwards et al. 2002), and using a teaser or message on the envelope (e.g., a suggestion of benefit to the participant if the letter is opened).

Other salience techniques applied to letters are the use of colored fonts or background (Hartley 2004) and other highly visual messages such as a red "PAY NOW" stamp if a payment is overdue (Behavioural Insights Team 2014) or the use of pictures (Social and Behavioral Sciences Team 2015).

An important limitation of applying salience techniques is that when they are used repeatedly, they can cease to stand out and attract attention. For example, Hitchman et al. (2014) found that between 2002 to 2011, the odds of noticing the cigarette health warnings on packets decreased by 5 percent for each of the eight successive annual surveys. This reinforces that salience, like many behavioral techniques, should be considered within the wider context of related strategies and with clear knowledge of its limitations.

Procedural Justice

Procedural justice is a broad concept that centers on the justice and transparency of authorities' decision-making processes and on individuals' treatment throughout those processes (Tyler 1997). Procedural justice includes criteria such as the accuracy of information used to inform decision-making, lack of bias in procedures, consistent procedures across individuals and time, ability to respond and correct decisions, inclusion of all relevant stakeholders in the process (Leventhal 1976), providing individuals with an opportunity to have their say during the decision-making process (Thibaut and Walker 1975); and treating individuals with respect and dignity (Bies and Moag 1986; Tyler 1989).

Systematic reviews of research have shown that individuals perceive government authorities as more legitimate, and are more likely to comply with their requests, when those authorities treat individuals in a procedurally just manner (Mazarolle et al. 2013; Roberts and Herrington 2013). Additionally, observational research has indicated that the effect of procedural justice on perceived legitimacy is consistent across many contexts and demographic categories (Wolfe et al. 2016).

In relation to written communications, each aspect of procedural justice offers opportunities for structuring written requests in ways that promote fairness and compliance. Wenzel (2006) examined the effect of including messages in tax reminder letters that emphasized two types of procedural fairness—informational justice and interpersonal justice—on tax payment. The letter based on informational justice requested the lodgment of a quarterly tax statement and provided justifications as to why the person had received the letter, why more assistance could not be provided to the person without further information, and why penalties needed to be imposed. The letter developed with interpersonal justice in mind made explicit that the tax office did not regard an individual's noncompliance as an act of deliberate intent, recognized the situational constraints upon compliance, and expressed sympathy for any negative reactions participants may have felt following the threat of penalties. Taxpayers who received these letters were significantly more likely to lodge their taxes than taxpayers who received a standard letter that did not incorporate these messages. Applying a similar approach, Doyle, Gallery, and Coyle (2009) reported that their justice letter resulted in 10 percent more tax return submissions than the standard letter within three months of posting. Similarly, Faulkner et al. (2018) reported that applying procedural justice and simplified messaging increased compliance with a request from a roads authority by 23 percent.

Procedural justice offers some practical and low-cost options for improving public administrators' communication with citizens and stakeholders. Regulatory agencies committed to a cooperative relationship with their stakeholders may find the communication of fair procedures central to improving compliance behaviors.

Incentives

For many decades, research has shown that human behavior can be motivated by consequences (see Pierce and Cheney 2013 for a comprehensive overview of consequence research). The use of beneficial consequences, or incentives, in behavior change interventions has long been applied by professionals from many different disciplines (Silverman et al. 2016). Incentives have been used to encourage a wide range of behaviors, including health-related behaviors (Giles et al. 2014; Mantzari et al. 2015), productivity (Jenkins et al. 1998), survey completion (Edwards et al. 2005; Edwards et al. 2009; Göritz 2006), and applying for public sector jobs (Dal Bó, Finan, and Rossi 2013). Incentives (and disincentives) are a useful tool for increasing uptake of desired behaviors that can be applied in written communications; however, incentives are not always effective and can sometimes conflict with other motivations (Ariely, Bracha, and Meier 2009; Gneezy, Meier, and Rey-Biel 2011).

Broadly speaking, incentives can be separated into two types: monetary (i.e., cash, checks) and nonmonetary (e.g., donations, prize draws, gifts). While the effectiveness of nonmonetary incentives varies considerably, they have typically been found to improve uptake compared with a no-incentive scenario (Bosnjak and Tuten 2003; David and Ware 2014; Edwards et al. 2009; Ryu, Couper, and Marans 2006). Systematic reviews of research have found that incentives are more effective when they are monetary and guaranteed (David and Ware 2014; Edwards et al. 2005). According to a systematic review conducted by Mantzari et al. (2015), incentive-based health-related behavior change interventions can not only motivate behavior when the incentive is present but can continue to do so up to three months after the incentive is removed. While this finding is encouraging, it has been well established that the effects of incentives generally dissipate after the incentive is removed.

Even small incentives can be integrated into written communications. For example, James and Bolstein (1990) sent a letter with a mailed questionnaire that stated, "Although the enclosed $0.25 ($0.50/$1.00/$2.00) cannot possibly compensate you for your time and effort on our behalf, please accept this as a small token of our appreciation for your cooperation in completing and returning the enclosed questionnaire" (p. 349). They found that when monetary incentives were mentioned, values as little as $0.25 significantly increased response rates compared with a no-incentive condition, and larger monetary values further increased response rates. As noted by Gneezy, Meier, and Rey-Biel (2011, 193), the definition of a small or a large incentive varies by context, but the general rule is to pay enough or don't pay at all.

While incentives can be useful for encouraging behavior, disincentives can also be effective. In the context of written communications, agencies can remind recipients of what they may lose as a result of noncompliance—such as a late fee. In some cases, these reminders appear to be effective. For example, providing reminders of possible fines or enforcement actions have been shown to reduce willingness to illegally download music (Levin, Dato-on, and Manolis 2007) and increase tax payment rates (Larkin et al. 2018). However, disincentives should be employed with caution. For example, when a small fine was introduced for late-coming parents at a child care center, Gneezy and Rustichini (2000) found that the number of late arrivals actually increased. In this study, the small fine provided a new financial value for "lateness," which was previously only tied to social and private values, signaling that arriving late was not very important.

The effectiveness of incentives depends on "how they are designed, the form in which they are given (especially monetary or nonmonetary), how they interact with intrinsic motivations and social motivations, and what happens after they are withdrawn" (Gneezy, Meier, and Rey-Biel 2011, 206). Public administrators should therefore consider that any behavior change resulting from an incentive is not likely to continue once the incentive is removed (Mantzari et al. 2015; Schultz 2014). Therefore, reminders of incentives (and disincentives) can be a useful tool for a one-off behavior—for example, sending a letter or email that offers customers a discount for paying their bill on time or offering entry into a prize draw for returning a form or survey on time—but may not always be appropriate in circumstances in which an ongoing behavior is required.

Reputation and Credibility

Reputation, or source credibility, is a term "used to imply a communicator's positive characteristics that affect the receiver's acceptance of a message" (Ohanian 1990, 41). For example, highly credible sources are perceived by recipients to be believable and trustworthy. The reputation of the source is one of several tangential cues outside the content of the message that influences individuals (Petty, Cacioppo, and Goldman 1981). It is most influential when individuals have limited knowledge, weak prior attitudes, and limited motivation to think deeply about the topic in question (Kumkale, Albarracín, and Seignourel 2010). Reputation has been recognized as an influential factor in written communications for a long time, with early studies (e.g., Hovland and Weiss 1951) finding that readers were more likely to change their opinion if the source of the message was judged as highly credible. More recently, both systematic and narrative reviews of decades of research have found that messages from highly credible sources tend to be more persuasive (Kumkale, Albarracín, and Seignourel 2010; Pornpitakpan 2004).

The credibility of a source can be maximized by including the credentials before the information (Allen et al. 2002; O'Keefe 1987). Credibility influences readers by introducing a bias that operates as the reader experiences the text and is therefore best communicated before the message. When selecting a source for reputation, a measure of public trust as a proxy for reputation or credibility can be used. For example, in Western cultures, health care professionals are viewed as one of the most ethical and trusted groups. Doctors, nurses, and pharmacists are the top five most trusted professionals in research in the United Kingdom, United States, and Australia (Gallup 2018; Ipsos MORI 2017; Roy Morgan 2017). School and university teachers and lecturers are also rated highly, as are scientists and engineers. In contrast, politicians, company directors, and business leaders are rated in the bottom half of each of these polls.

Sources chosen for their reputation should be selected carefully for their connection to the written communication. Many types of written communication will be most credible from sources with technical expertise (Sternthal, Phillips, and Dholakia 1978). However, written communication from individuals who are perceived to be similar to the individuals to whom it is directed, or from individuals who have relevant personal experience, are also generally perceived as more credible (Ayeh, Au, and Law 2013; Karakaya and Barnes 2010; Sillence et al. 2007). For example, Phua (2016) found that high source credibility, paired with a high degree of identification of the viewer with the spokesperson, produced a more influential message than either source credibility or identification alone.

Reputation and credibility has become increasingly important in written communications with the rise in disruptive communication or misinformation, which aims to manipulate behavior through mistruths and deceit (Bennett and Livingston 2018). For example, written scam communications such as sales letters and fee fraud emails use the perception of authority and trustworthiness to create credibility, using tactics such as endorsements, displaying qualifications, and highlighting past performance (Carter 2015). Such communication can lead to a decline in public confidence and skepticism in written communication and therefore can undermine official and credible information (OECD 2017).

Ease

Making compliance easy for the target audience is an important consideration in encouraging behavior change (Thaler and Sunstein 2008). This objective has three main implications for the creation of letters, emails, and other written communications: ensuring that the written instructions are clear, ensuring that it is easy to read, and ensuring that the requested behavior is straightforward to perform. Well-written content can promote readership, comprehension, and compliance. For written requests, understanding and compliance increase when instructions are written in an active voice (Hartley 2004), key terms are applied consistently, and jargon, industry-specific phrasing, and acronyms are avoided (Dean, Fielding, and Newton 2016). Plain language guidelines exist to help simplify written communication (Byrne 2008; Petelin 2010; Plain Language Action and Information Network 2011), and readability can be checked with tools such as the Fry test or Flesch Ease of Reading test (Woods, Moscardo, and Greenwood 1998). These tools analyze text length, density, number of syllables, and language style to assess text comprehension for audiences (Woods, Moscardo, and Greenwood 1998). When text simplification techniques were used on tax debt reminder letters sent to doctors in the United Kingdom, compliance increased from 21.1 percent to 35.3 percent (Behavioural Insights Team 2014).

Text layout and organization are also important to ensure that content is easy to read and messages are communicated clearly (Kools 2011a). The structure of a letter, email, or other written communication should reflect the importance of the messages to communicate. The most important content, including any calls to action, should be placed at the top of the letter, with additional details explored further down the page (Behavioural Insights Team 2014). Key points or instructions within the written communication can be highlighted using text effects, such as italicization, bolding, capitalization, and so on, but these should be applied sparingly to maintain legibility (Kools 2011b). The font size must be sufficient for the target audience, and while there are no concrete rules concerning preference for typeface, some studies have found sans serif typefaces appear more professional and are more visible if a small font size is necessary (Ling and van Schaik 2006). Text spacing is also important, with headings used to break lengthy sections into more concise elements, spaced proportionally throughout a document (Hartley 2004; Kools 2011b; Ling and van Schaik 2007).

A well-designed written communication will engage the audience and facilitate comprehension, but the ease of completing the behavior will also influence compliance rates. Audiences prefer "easy" behaviors (Smith, Shon, and Santiago 2011), which are generally those within their personal capabilities, knowledge, and skill sets (Michie, van Stralen, and West 2011). Complex requests should therefore be divided into simpler, smaller tasks with a low "hassle factor" (Behavioural Insights Team 2014). For example, providing a short web address, rather than a long web address, can increase the number of people who access an online resource (Social and Behavioral Sciences Team 2015). Similarly, systematic reviews have shown that survey response rates can be increased by making surveys shorter and more user-friendly (Edwards et al. 2002; VanGeest, Johnson, and Welch 2007) and that new technologies are more likely to be adopted when they are easy to use (King and He 2006; Schepers and Wetzels 2007).

Discussion

Public administrators heavily rely on letters, emails, and other written communications to contact businesses, members of the public, and other stakeholders. Although these methods of communication lack the richness of face-to-face contact, using evidence from the applied behavioral sciences can enhance their impact by improving compliance with the requests made in such communications.

INSPIRE is the first model of behavior change specifically designed to impact public administrators' ability to produce effective and impactful written correspondence. Unsurprisingly, bringing together behavioral techniques into an integrated model for improving compliance through written communication raises several conceptual questions. Some elements of the INSPIRE model exist in other behavior change models—such as Thaler and Sunstein's (2008) six nudge principles, the Behavioural Insight Team's MINDSPACE (Dolan et al. 2010; Dolan et al. 2012) and EAST (Behavioural Insights Team 2014) frameworks, and the behavior change wheel (Michie, van Stralen, and West 2011). These models each provide highly useful general approaches to behavior change. However, despite their value, these existing models are not as targeted as INSPIRE on enhancing results from written communications. Therefore, existing models include some concepts that are less applicable to written communications and miss other concepts that have been shown to be useful in improving compliance with written requests. For example, both Dolan et al. (2012) and Thaler and Sunstein (2008) include defaults—which refer to policy settings that come into force if no active choice is made—but, given their scope, do not include procedural fairness or implementation intentions. In contrast to defaults, which are usually put into practice by changing policies directly rather than changing written communications, procedural fairness and implementation intentions can be directly incorporated in written communications.

Additionally, in contrast to existing frameworks, INSPIRE provides explicit instructions of how to use each technique in written contexts (see table 1). The wider focus of existing frameworks has precluded them from providing explicit directions on how to apply the techniques in written communications. Therefore, the INSPIRE model arguably provides an easier to implement tool that better assists public administrators in using behavioral techniques in their letters, emails, and other forms of written communication.

INSPIRE is already generating impacts through its use by several government agencies in Australia. After presenting an early version of INSPIRE at a behavior change community of practice event in 2016, we are aware of the framework being used by several government agencies. For example, the Victorian Roads Authority tested the impact of using INSPIRE principles to improve drivers' compliance with medical fitness to drive reviews. Results showed that incorporating ease and procedural justice principles in a letter asking a driver to attend a medical examination increased compliance with the request by 23 percent (Faulkner et al. 2018). Similarly, the Victorian Department of Health and Human Services has used INSPIRE to increase vaccination rates (Borg et al. 2018; Tull et al. n.d.). Borg and colleagues (2018) found that sending a letter designed using INSPIRE principles informing parents of Aboriginal children about a free influenza vaccination increased their vaccination rates by 34 percent. Tull et al. (n.d.) found that sending an SMS message developed using INSPIRE techniques (specifically, implementation intentions) to parents of secondary school students increased the percentage of students who received the human papillomavirus vaccine. Furthermore, members of the authorship team, along with their colleagues at BehaviourWorks Australia, Monash University, have been invited to deliver INSPIRE training sessions to a range of Australian government agencies, many of whom have gone on to use INSPIRE principles in their written materials.

Bringing together behavioral techniques for written communications into a single framework raises several important questions for future research. First, existing research offers little guidance about which techniques to use when space limitations mean that not every INSPIRE technique can be used in a given piece of written communication. Very little research has investigated whether certain combinations of the INSPIRE techniques tend to be more effective at motivating desired behaviors than other combinations of techniques. Second, there is limited research on whether and how the effects of each INSPIRE technique vary across different audiences and contexts. Although each of the techniques appear to work in general, it is possible that there may be some contexts in which they work better, worse, or not at all. Research is needed to further investigate whether there are certain conditions that influence the effectiveness of INSPIRE techniques. Third, existing literature provides few indications about the longevity of the effects of many of the techniques included in INSPIRE. For this reason, it is unclear how long the effects of messages crafted using INSPIRE will last. However, given that many letters encouraging behavior may target one-off or infrequent behaviors, this limitation may not be a large concern in practice. Fourth, although we have tried to capture the techniques most relevant to written communications from public administrators, it is possible there may be other techniques that could be added to the INSPIRE framework. The publication of the INSPIRE framework paves the way for new research to identify such techniques. Each of these limitations could be addressed by using randomized experiments (Blom-Hansen, Morton, and Serritzlew 2015; Jilke, Van de Walle, and Kim 2016; Shadish, Cook, and Campbell 2002) to test communications developed using the INSPIRE framework and by conducting meta-analyses of the results of such experiments.

Conclusion

Bringing together multidisciplinary evidence from the behavioral sciences, the INSPIRE framework provides public administrators a recipe to design high-impact messages, thereby increasing the chance of behavioral change in recipients. It is unique in the published literature as an integrated model for improving compliance through written communications. Through its simplicity, it provides a means to increase the extent to which public administrators use established behavioral science techniques to maximize their impact.

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