

## BEHAVIOURAL ECONOMICS SYMPOSIUM 2019

### Making Behavioural Insights Work

16<sup>TH</sup> August 2019, Civil Service College

#### Lecture Notes

#### Keynote Speech:

### How can behavioural insights solve the last mile problem in service delivery?

By Professor Dilip Soman

#### BEHAVIOURAL INSIGHTS AND THE LAST MILE

- It is generally believed that the field of behavioural insights was established with the intent to document biases in individual behaviour. However, these biases are defined with respect to a norm that is not grounded in human realities. Now that the differences between ‘econs’ and ‘humans’ are better understood,<sup>1</sup> it is important to acknowledge that all individuals are inherently subjected to irrationality and biases as benchmarked against economic rationality.
- Nonetheless, governments and businesses still tend to design their interventions/products based on assumptions of economic rationality and this creates a “last mile” problem, where people were exposed to policies, programmes and products designed for ‘econs’. Thus, policymakers must ensure that their programmes are ‘human-compliant’.

#### Interventions for Behavioural Change

- Broadly speaking, there are four types of behavioural change that practitioners can hope to achieve via behavioural interventions:

S/N	Behaviour Change	Example
1	Compliance	A company complies with regulations
2	Switching/Purchasing	A doctor advises her patient to spend less time watching TV and more time in the gym
3	Consumption	A dietician advises his patient to consume more fruits and vegetables
4	Acceleration	A person saves early for retirement

- Behavioural interventions work best when practitioners are trying to elicit behavioural changes related to *consumption* or *acceleration*:
1. Consumption: Under-consumption could occur in various domains when the products or services offered did not have salient effects on their users.

<sup>1</sup> R. H. Thaler and C. R. Sunstein, *Nudge: Improving decisions about health, wealth and happiness* (New Haven, CT: Yale University Press, 2008). In the ‘Introduction’, the authors defined ‘Econs’ as the ‘economic man’ or the theoretical version of people presented in economics textbooks as forward-looking, unemotional and able to assign utilities when making their decisions. In contrast, ‘Humans’ are real-life individuals who are short-sighted, emotional and make decisions without thinking too deeply about them.

**Example: Why didn't patients keep to their medication regimes?**

Many patient populations in Canada and elsewhere are facing a problem of under-consumption of certain drugs which are meant to be taken regularly, but would not cause noticeable effects if the patient skipped a dose, e.g. medications for high cholesterol or diabetes. Hence, these patients tended to deviate from their medication regimes, which could eventually harm their health in the long term.

2. Acceleration: Initiatives aimed at accelerating behaviour change need to take into account factors such as the timing of the intervention.

**Example: Why don't users want to read privacy policies meant for their benefit?**

Users should scrutinise privacy policies for mobile apps (e.g. Instagram) to protect their interests, but users tend to view these policies as an obstacle to their usage of the app. This is because the privacy policy agreement is usually introduced before the first use and this is when users are the keenest to start using the app immediately.

According to ongoing research, a new initiative is being considered, whereby a user who downloaded the app would be presented with an abbreviated privacy policy that would only be valid for the first usage. The next time the user opens the app, he/she would be required to go through the entire policy. Preliminary results indicated that users were more receptive towards reading privacy policies via this arrangement, implying that timing of the intervention is just as important as its content.

### Importance of Psychological Factors

- Governments and businesses generally focus on addressing stakeholders' biases by providing them with more information. However, it is crucial to also consider their motivations, perceptions and emotions when designing interventions, as some of them — such as emotion — could impede decision making.

**Example: Why didn't eligible families apply for the Canada Learning Bond?<sup>2</sup>**

The Canadian government expected high take-up rate for the Canada Learning Bond (CLB), an initiative providing low-income families money for their children's education. However, 84% of the families eligible for the CLB did not apply during the first year of the policy. Although they knew about the policy, they were reluctant to open a bank account to receive the funds because they were embarrassed to inform the bank tellers of their financial situation.

- Motivations or perceptions could also hinder the success of certain interventions. Governments or businesses might (mistakenly) assume that their stakeholders' motivations are aligned with theirs, or they might not account for the possibility that their stakeholders would perceive the problem differently from them. These mismatched expectations of behaviours could result in failed interventions because the stakeholders do not behave the way that the programme designers expected them to.

---

<sup>2</sup> E. Nesterak, "How Do We Solve the Last Mile?", *The Psych Report*, 24 October 2015, accessed 9 September 2019, <http://thepsychreport.com/business-org/how-do-we-solve-the-last-mile/>.

## Key Pillars of Human Decision Making

- Context, inertia and procrastination were also key factors which influenced decision making.<sup>3</sup>
- **Context** often drives people’s decisions and preferences. An example would be the compromise effect,<sup>4</sup> where people select the middle option by default.

**Example: What is the ‘Goldilocks’ size of coffee?<sup>5</sup>**

Professor Soman conducted an experiment in a café in Hong Kong where coffee was available in three sizes — small (8 ounces), medium (10 ounces) and large (12 ounces). The large majority of customers consistently selected the medium size because they found the size ‘just right’. But after the café increased the size of all its cups by 2 ounces, customers continued getting the new medium size even though it was now the same size as the previous large. This implied that consumers choose their coffee sizes based on context rather than the actual volume.

- **Procrastination and Inertia.** Although people have intentions to act in their best interests (e.g. start a healthier diet, spend more time with their families, learn a second language), they have problems acting on these intentions because ‘life gets in the way’. In addition, people tend to remain in status quo, unless there are external factors which pushes them to make a change. This would explain how default options have a significant impact on people’s decisions.

Hence interventions should try to close the gap between intentions and action; people are already aware of what is in their best interests but they need more help to actually carry out their plans.

## Strategies for Behaviour Change

- Governments and businesses need to understand the characteristics of their stakeholders so that they can make a more targeted attempt at behavioural change. These stakeholders can be broadly classified into three types:

S/N	Type	Description
1	Motivated Enthusiasts (“Done!”)	People who would definitely change their behaviour because they were highly intrinsically motivated to do so
2	Diehard Opponents (“No way.”)	People who would definitely not change their behaviour because they were intrinsically opposed to it
3	Naïve Intenders (“Yes, I’ll do it tomorrow.”)	People who intended to change their behaviour, but would never get around to doing it

<sup>3</sup> D. Soman, “The Last Mile,” in *The Last Mile: Creating Social and Economic Value from Behavioural Insights* (University of Toronto Press, 2015).

<sup>4</sup> I. Simonson, “Choice based on Reasons: the case of Attraction and Compromise Effects”, *Journal of Consumer Research*, 16(September 1989), 158–174.

<sup>5</sup> D. Soman, “The Last Mile,” in *The Last Mile: Creating Social and Economic Value from Behavioural Insights* (University of Toronto Press, 2015).

- Naïve intenders generally make up the bulk of most markets. Governments and businesses hence need to shift their efforts from trying to convince diehard opponents, to helping naïve intenders overcome the frictions they faced in making the desired change.
- Professor Soman mentioned four strategies for changing behaviour:<sup>6</sup>
  1. Restrictions: Governments could impose bans on specific behaviours, while businesses could restrict access to specific products.
  2. Incentives: People could change their behaviour for monetary or social rewards, but incentives are generally only effective in the short term.
  3. Information: Information can facilitate decisions, but excessive information could reduce the likelihood of people making decisions.
  4. Choice Architecture: Nudges, a feature of the environment that could affect behaviours without restricting people's choices or changing their economic consequences, are proven to be effective in changing behaviours.

## Sludge

- Professor Soman introduced the concept of “sludge”,<sup>7</sup> which is the opposite of nudge. While a nudge is meant to facilitate decision-making, sludge impedes decision-making.
- Sometimes it is necessary to intentionally deter people from making impulsive choices or engaging in unhealthy behaviour.
- On the other hand, impedance could be undesirable if it is exploited for profit. Businesses could employ a ‘nudge and sludge’ strategy to steer consumers towards subscription-based services and then make it difficult for them to cancel their subscription.
- Sludge could also be an unintentional result of legacy systems arising from unorganised government processes, or outdated administrative requirements (e.g. paper disclosures used by financial institutions). Governments and businesses thus need to be more aware of and willing to question their existing processes to minimise sludge.

---

<sup>6</sup> D. Soman, “Choice Architecture and Nudging,” in *The Last Mile: Creating Social and Economic Value from Behavioural Insights* (University of Toronto Press, 2015).

<sup>7</sup> D. Soman, “Behavioural Insights and the Last Mile”, Presentation slides, CSC Behavioural Economics Symposium 2019, 16 August 2019

## Conclusion

- Behavioural insights have till now been applied mainly to address the 'last mile problems' of programmes, e.g. alteration of forms or reorganisation of information on websites. Nonetheless, if behavioural insights could be embedded throughout the entire design process of policy design, last mile problems could be greatly alleviated.

[Link to Professor Dilip's presentation slides](#)

## Plenary Session 1:

### Behavioural Insights (BI): Fact or Fad? Will BI ever become a mainstream policy tool?

By Professor Dilip Soman, Professor Ho Teck Hua, Dr Rory Gallagher,  
Dr Leong Wai Yan and Mr Ivan Yeo (Moderator)

Plenary session 1 consisted of a short presentation, followed by a discussion session among the panellists as well as Q&A with the audience. Read on for the summary of the discussion points of plenary session 1. For more details on the presentation, you can follow the link to the presentation slides.

#### SHORT PRESENTATION: BEHAVIOURAL NUDGES — EXAMPLES AND ISSUES

- Before the commencement of the plenary session, Professor Ho shared some of his work on using behavioural nudges to promote good health and environmental sustainability in Singapore. They include studies on getting people to stop littering, and incentivising taxi drivers and overweight people to exercise. Some interesting findings were:
  - (i) **Incentivising taxi drivers to exercise.** Taxi drivers who participated in the rental credit treatment (they received credit that could be used to offset their daily rental fee if they met a physical activity goal for that month) walked more than their counterparts in the cash treatment, even though both conditions offered the same monetary incentive. The result suggests that incentive targeting a salient and painful expenditure is more effective.
  - (ii) **Incentivising overweight people to exercise.** Heterogeneous treatment effects were observed; the incentive for weight loss was effective at getting male participants to lose weight but seemed to have a limited effect on female participants. Professor Ho opined that this could be because female participants' main motivation for exercising was their health rather than financial incentives. The study found indications of habit formation among participants; they continued to lose weight in the post-intervention period, when the incentives had been removed.
  - (iii) **Getting People to Stop Littering.** The peer-enforcement treatment (the "Tell Others Not to Leave Their Rubbish Behind" poster) was more effective than the altruistic treatment (the "Tell Yourself Not to Leave Your Rubbish Behind" poster). The study found indications of habit formation in both treatment groups as the change in overall littering behaviour persisted even after the messaging campaign had concluded.
- Professor Ho discussed three central issues in the field of behavioural insights. Firstly, on **short-term versus long-term behavioural changes**, he felt that most studies focused on the former but not the latter. He opined that if a certain behavioural intervention was not able to result in habit formation, it might not justify the cost of the intervention. Secondly, on **heterogeneous treatment effects**, practitioners must develop a methodology to customize treatments for different subjects. Lastly, on **scaling up habit formation**, practitioners must continue to explore scaling up successful behavioural interventions to engineer habit formation on a national level.

[Link to Professor Ho's presentation slide](#)

## PLENARY DISCUSSION

The plenary discussion spanned a few key themes, from ways to help policymakers acknowledge their own biases and the importance of behavioural insights (BI), to possible ways to “mainstream” BI and address the related challenges. Read on for a summary of the key insights.

### **Policymakers have biases too**

- Policymakers must be aware of their own biases so that they can take concrete steps to manage them. Otherwise, they run the risk of introducing bias into policy design.
- Given this, the best way to make informed decisions is to be empirical and experimental. This could involve the use of machine learning techniques to collect data to show which types of interventions work best for certain groups of participants. Despite being non-causal, such information can help policymakers make more informed decisions.
- Machine learning, however, could sometimes lead to public backlash, e.g.: in the case of Cambridge Analytical<sup>8</sup> when machine learning resulted in too personalised and targeted interventions. The government needs to guard against behavioural interventions that are too predictive and targeted as they could erode public trust and confidence in the institution.

### **The importance and role of BI**

- BI is a good complement, rather than a substitute, for classical economics. For example, UK supermarkets were able to decrease single-use plastic bag usage substantially since a 5-pence charge had been introduced in 2015<sup>9</sup> and this feat could not have been achieved alone by BI. Furthermore, Pigouvian tax is a tried-and-tested method that is easily scalable and implementable. Nevertheless, it is important for the government to communicate to the public that such taxes are used to discourage undesirable behaviours and not to increase the government’s coffers. One possible way to mitigate public unhappiness about such taxes is to direct the collected revenue to fund meaningful initiatives.
- Complementing classical economics, BI should be an integral part to policy design because policies are designed for humans, and not econs. But in order for BI to become a mainstream policy tool, policymakers need to stop viewing it as a separate entity and start fully integrate human psychology into their policy making process.
- Behavioural interventions are highly contextual and the experimentation process can be lengthy before a specific BI treatment is ready to be implemented on a national level. For this reason, policymakers need to anticipate future research needs, especially in the realm of BI, since they might not have the luxury of time to conduct experiments when the issue arises.

---

<sup>8</sup> Z. Kleinman, “Cambridge Analytica: The story so far,” 21 March 2018, <https://www.bbc.com/news/technology-43465968>.

<sup>9</sup> R. Morelle, “Plastic bag use plummets in England since 5p charge,” 30 July 2016, <https://www.bbc.com/news/science-environment-36917174>.

## How can BI be a mainstream policy tool?

- From an organisational perspective, the cost of experimentation must decrease to increase the willingness and ability to conduct experiments (based on the simple law of Demand and Supply). These costs include substantial cultural costs such as ethical considerations and getting people to accept no result or negative results, as well as the cost of collecting and analysing data. In Canada, the government established a Research Ethics Board to serve as a check-and-balance in the system and practitioners have been receiving strong support from the Canadian government.
- In addition, practitioners need to have *patience* in terms of timelines, and cultivate *trust* by working closely with policymakers and understanding their considerations.
- From an application perspective, there are two 'lenses' through which BI can be a mainstream policy tool:
  1. **Look out:** Policymakers can use BI when working with external parties to influence and regulate firms' behaviour. For example, Instagram had faced scrutiny over various issues such as cyberbullying and possible impact on mental health. Policymakers could use BI to influence the market by mobilising advocates to confront errant firms. Such an approach had been successful in getting firms to change their policies.<sup>10</sup>
  2. **Look in:** Rather than viewing BI only as a policy tool to change the behaviour of citizens, practitioners should also explore the possibility of using BI to change the behaviour of policymakers who are subjected to the same biases. By acknowledging their biases, policymakers are then able to address them and make more informed decisions.

## Challenges and addressing them

- **The diminishing effect of nudges:** The effect of nudges may decline over time if citizens are more aware of the government using nudges to steer behaviours. But it is also worth noting that choice architecture would become more effective as we refine our understanding of it. In some contexts, becoming more aware of nudges could actually steer people towards the right behaviour because it conforms to social norms and is viewed as the "right" decision by the citizens themselves.

Practitioners should not be too concerned about the possible diminishing effect of nudges as it might not even matter. A thought experiment to illustrate this point would be to envision a world where the government has successfully nudged its citizens to choose healthier products and recycle their trash. After these habits become a social norm, citizens will automatically engage in these behaviours without nudges, and pass them on to their children. In such a world, the government would no longer need to nudge its citizens and the question on its effectiveness is hence rendered irrelevant.

---

<sup>10</sup> K. Steinmetz, "Inside Instagram's Ambitious Plan to Fight Bullying," 8 July 2019, <https://time.com/5619999/instagram-mosseri-bullying-artificial-intelligence/>.



- **Failed experiments:** A pertinent question for policymakers is how they can continue to affirm the value of evidence-based approach to policy design when their experiment “fails”. First, valuable insights can still be drawn from these “failed” experiments, including identifying barriers impeding the success of the experiment (e.g. from a design or implementation process) as they can be shared with other policymakers working on a similar topic. This is a possible way to frame the value of a “failed” experiment, rather than simply being resigned to an unfavourable outcome.

Second, the result that something would not work in itself, is a valuable insight, as it would be better to know that a possible intervention does not work at the experimental stage, than at full roll-out of a policy. These factors affirm the importance of weaving a culture of experimentation into policy work, as part of the ecosystem that supports evidence-based policymaking.

More importantly, there is a tendency for sharing only successful trials, without a balance from those that have failed. This is a serious problem as policymakers might develop an over-optimistic view of behavioural interventions.

- **Cross-Sharing:** There were suggestions for policymakers to capitalize on various experiments conducted service-wide by setting up a “database” for sharing. This would facilitate peer-to-peer learning and provide a better assessment of how behavioural interventions work in different contexts, including their scalability.
- **Fixation on BI:** While BI is a powerful tool, practitioners have a tendency to assume the problem lies in the last-mile, without considering if it is better to focus on the first-mile instead. Whenever possible, they should look upstream and change the environment since it is less effective to get people to change their behaviour via the use of choice architecture. For example, the UK Sugar Tax<sup>11</sup> aimed at manufacturers instead of consumers, thereby reducing the sugar content of the products upstream rather than encouraging people to choose healthier alternatives.

---

<sup>11</sup> N. Trigg, “Soft drink sugar tax starts, but will it work?” 6 April 2018, <https://www.bbc.com/news/health-43659124>.

## Plenary Session 2: Nudging pro-social behaviours

By Professor Lorenz Goette, Associate Professor Leonard Lee,  
Mr Huang Jianyun and Dr Joanne Yoong (Moderator)

Plenary session 2 consisted of 3 presentations, followed by a Q&A session with the audience and speakers. Read on for the summary of the presentations and discussion points during the Q&A session. For more details on the presentations, you can follow the links to the presentation slides.

### PRESENTATION #1: DIRECTING ATTENTION TOWARDS RESOURCE USE

- Professor Goette wanted to explore how the attitude-behaviour gap was hindering an individual's attempt to conserve resources despite expressing pro-environmental sentiments. One of the prevailing hypothesis was that people experienced difficulty translating their attitudes into behaviours due to unavailability of real-time data that would help them make the behavioural change while engaging in the activity. Currently, consumers only receive feedback on their monthly aggregate energy consumption, which is not the most salient way to present information.
- To test this hypothesis, Professor Goette designed an experiment to examine if behaviour-specific and real-time feedback, such as water volume and duration of the shower, could influence people to spend less time showering. Furthermore, some of the participants were given water conservation goals to determine if actionable feedback could reinforce conservation effects. The findings were as follows:
  - a. **NUS-PUB Field Experiment:** Participants reduced their water consumption when they were provided with real-time feedback. This effect was further reinforced by the water conservation goals. In addition, it was noted that a targeted and realistic goal had the largest effect on participants.
  - b. **UTown (NUS) Field Experiment:** To test if the findings could be replicated in settings where participants were not required to pay for their water consumption, the experiment was repeated at UTown (NUS). Similar to the previous study, participants reduced their water consumption when they were provided with real-time feedback and this effect was reinforced by the water conservation goals.
- Results obtained from the field experiments had re-affirmed the hypothesis that people would make better decisions when they had more accurate information on resource usage. Professor Goette is in the process of conducting a policy pilot (*Smart Shower Programme*) to assess if the findings can be replicated outside of an experimental setting.

[Link to Professor Goette's presentation slide](#)

## PRESENTATION #2: COMPETITION-BASED ENERGY CAMPAIGN TARGETED AT CHILDREN

- Associate Professor Lee and his team launched WE-Hero, a competition-based intervention programme targeted at young children to maximise their influence in affecting energy consumption in their households. The team hypothesised that such a competition would spur children's desire to conserve energy at home, and the energy-conservation knowledge they acquired in the workshop would permeate to their families.
- The preliminary results suggested that 'public recognition' enhanced the effectiveness of such a competition-based intervention programme. Furthermore, social rewards were more effective than financial rewards when it came to habit formation for both water and electricity conservation.

[Link to Associate Professor Lee's presentation summary](#)

## PRESENTATION #3: HOUSEHOLD FOOD WASTE RECYCLING PILOT

- Mr Huang, from the Ministry of Environment and Water Resources (MEWR), presented on a pilot programme to encourage households to recycle their food waste. In order to design an effective intervention, the agency used *Journey Mapping* ([see slides](#)) to understand how residents handled their food waste and they identified 3 key phases; (a) generation, (b) segregation and (c) disposal of food waste, with the latter taking place outside the residents' homes.
- Several steps were taken to facilitate new habit formation:<sup>12</sup>
  - a. **Disrupt existing behaviour:** Singaporean households were currently conditioned to throw their waste down the chute because it was convenient to do so. To disrupt this status-quo, there was a need to make people aware of their unconscious actions and provide them with a viable alternative. As part of an outreach programme, MEWR partnered with the local Residents' Committee to organise a block party as well as conducted door-to-door visits to raise awareness about the importance of recycling food waste. The food waste recycling bins were placed at convenient locations to reduce the potential barriers.
  - b. **Activate the new behaviour:** Explicit cues to trigger the new behaviour were located in both public as well as private spaces. For example, there were visual cues on the kitchen caddy, food waste bags and information card to remind residents to segregate their food waste within the confines of their homes. Furthermore, stickers were placed above the public rubbish chutes to serve as a last call to action for residents to segregate their food waste for recycling.

---

<sup>12</sup> Sublime Behavior Marketing. (n.d.). "A marketing strategy that works with both sides of the consumer mind is the key to long-term success," <https://www.sublimebehavior.com/services/strategy/>.

- a) **Reinforce the new behaviour:** Residents were provided with immediate feedback on their performance; the waste recycling bin would display both the weight of their food waste and encouraging message to thank them for their participation. The saliency of such information should boost recycling efforts. In addition, monthly feedback cards were also mailed to residents and packets of fertilisers were distributed during outreach visits to visually illustrate the end product of their food waste recycling efforts.
- Some interesting findings were noted:
    - a. Based on the participation patterns of the households, they were categorised into three groups; serious, casual and novelty recycler. These participants differed mostly in their (i) participation rate, (ii) environmental attitude and (iii) motivation.
    - b. While the weekly participation rate was downward trending, the participation rates increased slightly during the weeks when residents received their monthly feedback. This highlighted the importance of sustained communication and ‘feedback mechanism’ to reinforce their commitment.
    - c. The post-pilot survey revealed an increase in environmental centrality, defined by MEWR as the centrality of environmental attitude to an individual’s identity, and responsibility among the participants. Furthermore, there were significant improvement in knowledge of food waste recycling, regardless of whether they actually participated in recycling food waste. This indicated the importance of a visual closure of the information loop to the residents through the distribution of packets of fertilisers during the house visits. However, there was a drop in “acknowledgement of environmental issue” and it was hypothesised that residents might choose to ignore the issue once they had done something to address it.
    - d. There were indications of habit formation as 25% of the households continued to recycle their food waste even after the pilot programme had concluded.
  - These findings offered invaluable insights into food waste segregation and recycling behaviour at the household level, which will help inform the development of future household recycling programmes.

[Link to Mr Huang’s presentation slides](#)

## PLENARY DISCUSSION

The plenary discussion spanned across three key themes. Read on for a summary of the key insights.

### Cost-effectiveness of behavioural intervention

- The cost-effectiveness of a behavioural intervention hinges on how its 'costs' and 'benefits' are computed. Practitioners can understate the 'costs' of the intervention if they fail to account for the opportunity cost of labour. On the same note, the 'benefits' can be understated if the long-term and sustainable effects of the behavioural intervention are omitted.
- Furthermore, it is important to consider the intangible benefits arising from such interventions. For example, government agencies can gain valuable insights into citizens' behaviour and these insights can be used to refine future policies.

### Possible heterogeneous treatment effect on various subgroups

- Certain subgroups, such as senior citizens might differ greatly from their younger counterparts in the areas of social dynamics, historical context and biological cognitive process. Hence, practitioners should be mindful of possible heterogeneous treatment effect. For example, senior citizens might value social recognition less than their younger counterparts and this can introduce statistical error.
- To address this issue, practitioners should actively seek to obtain a more representative sample. Alternatively, they can rely on the use of data analytics and/or machine learning to identify such heterogeneous treatment effects among various subgroups.

### Deterring non-social behaviour

- Current literature had explored the effectiveness of demonstrating empathy to diffuse tense situation. In one such study, telephone operators were able to appease the callers if they were shown to be empathetic.<sup>13</sup> This helped to de-escalate the tension and telephone operators were able to expedite call resolution. To deal with conflicts in person, front-line employees could relocate difficult customers to a private space; otherwise people might refuse to de-escalate the situation in fear of being at the losing end in a social space.
- Interested parties should refer to studies on narratives and empathy in the field of social psychology for more information.

---

<sup>13</sup> C. M. Clark, U. M. Murfett, P. S. Rogers and S. Ang, "Is Empathy Effective for Customer Service? Evidence from Call Center Interactions," *Journal of Business and Technical Communication*, 27(2012), 123–153, doi: 10.1177/1050651912468887.