

# Linguistic strategies to present complexity in a time of crisis

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## 1. Introduction

During the SARS-CoV-2 pandemic, world leaders have been expected to discuss, introduce and explain both complex and complicated notions. For example, they have had to provide numerical updates on the number of new infections or the ratio of available intensive care units. They have had to incorporate into their speeches new and foreign concepts, such as that of *R rate* or *super spreader*. They have had to introduce new measures meant to mitigate the effect of the covid-19 pandemic. The particulars of these mitigation practices were dependent on the specific nation or subregion, but typically they included consistent and thorough hand washing, wearing face masks, ensuring distancing between oneself and other individuals, following quarantine measures, closures of businesses and social venues, limiting the number of individuals in public and private meetings, and declaring one's whereabouts if diagnosed with the virus in order to track down others who might have been in close contact. Some of these measures were particularly complex in that they were dependent on a series of provisos and conditions, e.g. closure of restaurants, but only in regions with an incidence of covid-19 over a particular threshold, and only after 9 p.m., but only if the restaurant has no outdoor seating area. In any case, this information had to be communicated in a way that made it possible for their audience to understand what they were required to do so that they could act upon it.

Public understanding of what was happening and of how individuals were expected to act was crucial, especially during 2020: in the absence of an effective vaccine, human behavior and public awareness became all the more important.

Low understanding can have deleterious effects in any communicative situation, but these effects can be even more pronounced whenever public health response effectiveness is dependent on peoples' perception of the disease and their response in the face of it.

The incomplete or incorrect understanding health-related information can lead individuals to adopt reckless and risky behavior; this can lead to an uptick of infections and the loss of lives. Individuals who do not fully understand the information being provided during a pandemic are also more at risk to develop anxiety, and to rely on false, misleading information that appear on social media.

It is then crucial that information that pertains to explaining, counteracting and mitigating a pandemic is presented in a way which is as clear as possible. Counter-intuitive encodings must be avoided to ensure that nothing gets misinterpreted by the audience. Ambiguity of meaning must be prevented. Complex concepts must be broken down into more understandable parts, and complicated concepts and notions must be clearly explained if they cannot be left out of the discourse.

In this paper I look at how four European leaders – Erna Solberg, Giuseppe Conte, Emmanuel Macron, Boris Johnson- broke down the complexity associated with Covid-19 containment measures in the period of March 2020 – October 2020.

## 1.2 Complex vs Complicated

### 1.2.1 Complicated Notions

I maintain a distinction between *complicated* and *complex*. I define *complicated* as something which is difficult to analyze, understand and sometimes also to explain. Whether or not something qualifies as complicated is subject to personal interpretation: technical notions relevant to subfields of linguistics may be particularly transparent to a linguist, for example, but may seem inscrutable to others outside the field.

In the context of crisis communication in the case of a pandemic, two concepts are particularly relevant to illustrate the notion of *complicated*: health literacy and numeracy.

The term health literacy refers to an individual's understanding of concepts related to health and healthcare, and their ability to act upon this knowledge to adopt health-preserving behavior in their day-to-day life. 'Behavior' here refers both to actions that an individual can take up daily, like drinking enough water, and to actions that an individual should take up only in specific contexts and situations because connected to specific circumstances, such as wearing a face mask when in proximity to other people. Health literacy interacts with complicatedness because understanding how to behave to maintain one's health sometimes requires understanding concepts that might be difficult to grasp, or that one might be unfamiliar with. In the case of the Covid-19 pandemic, for instance, the concept of *airborne* virus may not be familiar to everyone; not understanding what airborne viruses entail may lead people to adopt behaviors that put them and their family at risk.

Similarly, people's ability to understand what kind of behavior to avoid is tied to their understanding of quantitative data and mathematical concepts such as probabilities.

The ability to understand quantitative data, compare numerical magnitudes, perform basic calculations and comprehend concepts such as percentages and probabilities is referred to as "numeracy."

Multiple studies (Desclaux et al. 2017, Garcia-Retamero 2019, Stacey et al. 2017, Trevena et al. 2006, Trevena et al. 2013, Zamarian et al. 2021) have shown that there exists a strong correlation between higher numeracy, more accurate risk comprehension and the ability to make correct decisions in high-risk situations. An individual with a solid numerical competence is more likely to adhere to accepted health recommendations, displays more favorable outcomes should they contract a chronic illness and in general has a lower risk of mortality (Garcia-Retamaro et al 2015, Garcia-Retamaro et al 2019). In the context of the Covid-19 pandemic, it has been shown that lesser numeracy skills tie in with greater vulnerability to misinformation and conspiracy theories (Roozenbeek et al. 2020).

Trouble is, the general population appears to be overall numeracy-deficient (Gigerenzer et al. 2007, Yamagishi 1997). Covid-19 updates have relied on concepts such as percentages (e.g. the percentage of positive Covid tests over the overall number of tests taken that day) and probabilities (e.g. the probability to be requiring hospitalization on the basis of one's age group

or presence of comorbidities). According to Gigerenzer et al. 2007 (see also Yamagishi 1997), however, both concepts are often misunderstood. World leaders must then be mindful of the overall low numeracy of the general population when designing their speeches.

### 1.2.2 Complex Notions

I define „complex“ as anything composed by several interacting components. A classic example to illustrate complexity is flocking, namely the behavior exhibited by birds flying together in a single flock. Unlike “complicated”, complex does not by itself evoke difficulty: the different components making up a complex system may be relatively straightforward to analyze, describe or assess. The difficulty with complex systems arises once we start trying to predict or understand how the different components interact with each other. If one invests the necessary time, a complicated notion can always be mapped out and ultimately understood. Complicated phenomena may be confusing, but the relationship between the different parts making up the phenomenon are always transparent, so that it is possible to predict what will happen if something is changed or tweaked. In complex phenomena, on the other hand, the effect of one component on the other and the way they interact together may not always be transparent, making it difficult to predict the behavior of the system over time.

In the context of the covid-19 pandemic, “complex” is relevant in that several of the mitigation and containment measures adopted by local governments consisted in the interplay of distinct, relatively straightforward components: set of behaviors (wash your hands AND wear a mask), set of conditions (closure of restaurants, but only after 10 p.m. and only if no outdoor area is present), sequences of phases (Boris Johnson’s *Contain, Delay, Research, Mitigate*). This means that Covid-19-related communication must necessarily deal with complexity, as complexity is intrinsic in the way the Covid-19 pandemic has been approached.

Not only are Covid-19 containment measures built on an intrinsic notion of complexity, the pandemic itself is an example of a complex phenomenon: pandemics arise out of the interaction of several distinct individuals, and from the interaction between individual behavior and the environment. Pandemics do not just negatively affect the health sphere: their consequences transcend several boundaries. Politics, economics, the environment, society just to name a few. For instance, imposing social distancing will not simply affect the spread of the virus, it will affect some business operations, leading to inevitable closures and thus higher unemployment. Higher unemployment in turn might lead to epiphenomena such as higher crime rates, and a higher incidence of depression and similar afflictions in the general population.

In the context of both pandemics and epidemics, we then experience *metacomplexity*. This is a term that I coined as a calque of *metalanguage*, i.e. language used to describe language. Metacomplexity refers to any situation where complexity is used to deal with complexity. Complex measures are needed to tackle pandemics, as pandemics are types of complex systems. With reference to communication, this in turn generates the need to use language that is conducive to both describing and breaking down complexity. It also means that effectively communicating to the public that we are dealing with a complex phenomenon becomes essential. For example, only if we effectively communicate to our audience that pandemics are an example of a complex system can they fully understand that any mitigating measure will not have an immediate effect on the spread of the virus. Only if they are aware of the complexity of a pandemic can they realize that behavior of a single individual can create a

domino effect causing several countries to experience an epidemic and ultimately leading to important socio-economic repercussions.

### 1.2.3 Focus and structure of this article

In the previous subsections, we discussed the difference between *complicated* and *complex* notions, and saw that both are relevant when describing official government communication in the context of a global virus outbreak. The focus of this article is going to be complexity in particular. This is for two main reasons. First of all, while there have already been studies on how difficult notions such as technical terms have been communicated to the public during early stages of the Covid-19 pandemic (Jernigan 2020, Salimi et al. 2020), to the best of my knowledge there have not been any study focusing on complexity in particular. Secondly, being pandemics particularly apt examples of a complex systems, choosing to focus on communicating complexity seems a particularly justifiable choice.

As mentioned above, for this study I focused on speeches given during the first and part of the second pandemic waves (March 2020 to October 2020). This choice is not casual. Analyzing early pandemic speeches gives me the chance of assessing how complexity communication is influenced by statistical uncertainty. Generally speaking, all crisis-related communication is characterized by increased time pressure (Haynes, Barclay & Pidgeo 2008; Lubchenco et al. 2012; McNutt 2020; Shore 2013). Such is the nature of crises: they are unexpected and require immediate intervention. Often governments have specific protocols in place that dictate what to do and what to say. In the case of the Covid-19 pandemic, however, government protocols could only do so much to compensate for the fundamental uncertainty that surrounded key characteristics of the SARS-CoV-2 virus; for example, up until late January 2020, it was still not clear whether SARS-CoV-2 could be transmitted from human to human. Uncertainty has an effect on complexity-related discourse because the need to communicate that some piece of information is still under review adds a level of complexity to the discourse, which undermines the effort to provide the population with easy-to-follow practical advice (Chua Chow & Sarin, 2002; Liu & Mehta 2020). Moreover, if key characteristics of the virus are unknown, it will take more time to decide on which mitigation and containment measures to adopt, which will leave less time to decide on an effective strategy for communicating these measures to the public.

Analyzing part of the speeches given during the second wave allows me to see what changes have been brought by an increased familiarity with the SARS-CoV-2 virus and the effects of the covid-19 pandemic.

This article is structured as follows. In section 2, I describe the dataset that I used for this study breaking down the speeches I analyzed for date, type and number of words. In section 3 to 6 I focus on specific leaders: in section 3 I discuss Solberg, in section 4 Macron, in section 5 Johnson and in section 6 Conte. Section 7 is a concluding section.

## 2. The dataset

For this study I looked at all addresses to the nation and official press conferences given between March 2020 and October 2020 by four European politicians, who were all leaders of their respective country at the time: Erna Solberg (Prime Minister of Norway), Giuseppe Conte

(Italian Prime Minister), Emmanuel Macron (French President) and Boris Johnson (Prime Minister of the UK).

I excluded from the analysis all interviews; when analyzing press conferences, I also excluded those parts of the press conference where a given leader addressed the questions posed by the journalists/the audience. The reasoning behind this choice is my interest in analyzing strategies to tackle complexity. While there is generally a strategy behind programmed speeches -i.e. some thought has hopefully been given to what to say and how to say it- it is more difficult to talk about *strategy* when a speaker has to reply to unexpected questions.

Below is a breakdown of the speeches I considered; I indicate date and type.

	<b>Date, type, n. of words</b>	<b>Total words</b>
<b>Emmanuel Macron</b>	<ol style="list-style-type: none"> <li>1. 12<sup>th</sup> March 2020 (address to the nation, 3670 tokens)</li> <li>2. 16<sup>th</sup> March 2020 (address to the nation, 2790 tokens)</li> <li>3. 28 October 2020 (address to the nation, 3581 tokens)</li> </ol>	10'041
<b>Giuseppe Conte</b>	<ol style="list-style-type: none"> <li>1. 4<sup>th</sup> March 2020 (address to the nation, 709 tokens)</li> <li>2. 8<sup>th</sup> March 2020 (press conference, 1880 tokens)</li> <li>3. 9<sup>th</sup> March 2020 (press conference, 776 tokens)</li> <li>4. 11<sup>th</sup> March 2020 (address to the nation, 1097 tokens)</li> <li>5. 21<sup>st</sup> March 2020 (address to the nation, 763 tokens)</li> <li>6. 26<sup>th</sup> April 2020 (press conference, 3498 tokens)</li> <li>7. 7<sup>th</sup> October 2020 (press conference, 559 tokens)</li> <li>8. 13<sup>th</sup> October 2020 (press conference, 559 tokens)</li> <li>9. 18<sup>th</sup> October 2020 (press conference, 1172 tokens)</li> <li>10. 24<sup>th</sup> October 2020 (press conference, 1142 tokens)</li> </ol>	12'528
<b>Erna Solberg</b>	<ol style="list-style-type: none"> <li>1. 10<sup>th</sup> March 2020 (press conference, 832 tokens)</li> <li>2. 12<sup>th</sup> March 2020 (press conference, 709 tokens)</li> <li>3. 13<sup>th</sup> March 2020 (press conference, 755 tokens)</li> <li>4. 14<sup>th</sup> March 2020 (press conference, 1452 tokens)</li> <li>5. 15<sup>th</sup> March 2020 (press conference, 851 tokens)</li> <li>6. 18<sup>th</sup> March 2020 (press conference, 863 tokens)</li> <li>7. 24<sup>th</sup> March 2020 (press conference, 870 tokens)</li> <li>8. 26<sup>th</sup> March 2020 (press conference, 856 tokens)</li> <li>9. 27<sup>th</sup> March 2020 (press conference, 721 tokens)</li> <li>10. 31<sup>st</sup> March 2020 (press conference, 1031 tokens)</li> <li>11. 4<sup>th</sup> April 2020 (press conference, 1167 tokens)</li> <li>12. 24<sup>th</sup> April 2020 (press conference, 1144 tokens)</li> <li>13. 10<sup>th</sup> September 2020 (press conference, 671 tokens)</li> <li>14. 23<sup>rd</sup> October 2020 (press conference, 1004 tokens)</li> <li>15. 26<sup>th</sup> October 2020 (press conference, 1179 tokens)</li> </ol>	14'105
<b>Boris Johnson</b>	<ol style="list-style-type: none"> <li>1. 3<sup>rd</sup> March 2020 (press conference, 962 tokens)</li> <li>2. 9<sup>th</sup> March 2020 (press conference, 532 tokens)</li> <li>3. 12<sup>th</sup> March 2020 (press conference, 1085 tokens)</li> <li>4. 16<sup>th</sup> March 2020 (press conference, 1051 tokens)</li> <li>5. 17<sup>th</sup> March 2020 (press conference, 610 tokens)</li> <li>6. 18<sup>th</sup> March 2020 (press conference, 1147 tokens)</li> <li>7. 19<sup>th</sup> March 2020 (press conference, 886 tokens)</li> <li>8. 20<sup>th</sup> March 2020 (press conference, 841 tokens)</li> <li>9. 22<sup>nd</sup> March 2020 (press conference, 656 tokens)</li> <li>10. 23<sup>rd</sup> March 2020 (press conference, 897 tokens)</li> <li>11. 25<sup>th</sup> March 2020 (press conference, 428 tokens)</li> <li>12. 30<sup>th</sup> April 2020 (press conference, 1974 tokens)</li> <li>13. 11<sup>th</sup> May 2020 (press conference, 795 tokens)</li> </ol>	31'908

	<b>14.</b> 24 <sup>th</sup> May 2020 (press conference, 1124 tokens) <b>15.</b> 25 <sup>th</sup> May 2020 (press conference, 869 tokens) <b>16.</b> 28 <sup>th</sup> May 2020 (press conference, 2051 tokens) <b>17.</b> 3 <sup>rd</sup> June 2020 (press conference, 1287 tokens) <b>18.</b> 10 <sup>th</sup> June 2020 (press conference, 1835 tokens) <b>19.</b> 16 <sup>th</sup> June 2020 (press conference, 994 tokens) <b>20.</b> 23 <sup>rd</sup> June 2020 (press conference, 1675 tokens) <b>21.</b> 3 <sup>rd</sup> July 2020 (press conference, 1539 tokens) <b>22.</b> 31 <sup>st</sup> July 2020 (press conference, 1179 tokens) <b>23.</b> 9 <sup>th</sup> September 2020 (press conference, 2029 tokens) <b>24.</b> 22 <sup>nd</sup> September 2020 (press conference, 1143 tokens) <b>25.</b> 30 <sup>th</sup> September 2020 (press conference, 771 tokens) <b>26.</b> 12 <sup>th</sup> October 2020 (press conference, 624 tokens) <b>27.</b> 16 <sup>th</sup> October 2020 (press conference, 1553 tokens) <b>28.</b> 20 <sup>th</sup> October 2020 (press conference, 698 tokens) <b>29.</b> 22 <sup>nd</sup> October 2020 (press conference, 693 tokens)	
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**Table 1.** Dataset used for the study

The four leaders whose speeches I analyze in this article exhibited different approaches for communicating with their constituents: for Emmanuel Macron, addresses to the nations were rare events. The French president only addressed his constituents three times in the months between March and October 2020. Boris Johnson, on the other hand, was significantly more visible than his French counterpart: he was involved in televised addresses to the nation 29 times, most of which were in the form of press conferences. This difference in frequency is even more remarkable if we considered that Boris Johnson was out sick for almost a month back in April 2020; the British Prime Minister contracted Covid early on, was admitted to the hospital on the 5<sup>th</sup> of April 2020, and only officially returned to his duties in Downing Street back on the 26<sup>th</sup> of April. Halfway between the French and the British leaders are Giuseppe Conte, who gave 10 speeches, and Erna Solberg, who gave 15.

We also see that on average, Macron’s speeches were considerably longer than those of the other heads of state.

We now look at the communicative style of individual heads of state, starting with Norway’s former *Statsminister* Erna Solberg.

### 3. Erna Solberg, Norway

Prime Minister Erna Solberg’s main strategy to deal with complexity is (over)simplification. This is evident not just by her lexical and syntactic choices, but also by the type of information she chooses to present or gloss over.

In mid-March 2020, Solberg famously held a press conference specifically addressed to children. This was meant to address any questions, doubts and worries Norwegian kids might have had on the Covid-19 pandemic. During this kids-only special conference, Solberg and other ministers from her cabinet answered questions that had been sent in by children from all over the country; these questions touched upon topics such as school closures, celebrating birthdays during a pandemic, and “mom and dad” getting infected. “It’s okay to be a bit scared” (“*Det er lov å bli litt redd*”), Solberg famously told her young audience at that time.

Solberg's tendency towards simplification ties in with this event because, in a way, her communicative style resembled the way an adult would approach younger generations even when she was addressing an audience of adults. The approving remarks in examples (1-2) exemplify this phenomenon particularly well. Expressions like "that's very good" and "that's a very good number" could easily be uttered by a parent addressing their child. The use of the intensifier "veldig" (= very), which is rather colloquial, further highlights this tendency:

- 1) "In recent days, organizations, companies and municipalities have taken many initiatives to limit infection (...) **That's very good**"  
*"De siste dagene har organisasjoner, bedrifter og kommuner tatt mange initiativ for å begrense smitte (...) **Det er veldig bra**"*
- 2) "Almost 70 percent are positive about taking the vaccine if it is recommended. **That's a very good number**"  
*"Nesten 70 prosent er positive til å ta vaksine dersom den blir anbefalt. **Det er veldig gode tall**"*

One simplification strategy that is particularly relevant in the context of the covid-19 pandemic is Solberg's overuse of the cardinal adverb "mange" (many). As pandemics are instances of complex phenomena, their effects are not restricted to a single group of individuals, type of business or geographic location. As such, all world leaders have had to discuss pluralities during the course of the Covid-19 pandemic. One of the most interesting features we can inspect in the context of the focus of this paper is precisely how different world leaders choose to address these pluralities; we will see that even in a data sample as modest as ours, we already see at least two main strategies delineating.

Solberg uses the adverb "mange" to entail numerosity without having to go into too much detail about the nature and composition of such numerosity. In example (3), for example, Solberg uses "mange" to simply entail that businesses other than hotels and kiosks have been affected by the pandemic. This allows her to be factually correct while at the same time avoiding the appearance of long lists of nominal expressions:

- 3) "Hotels, kiosks and mange other businesses do not have customers"  
*"Hoteller, kiosker og **mange andre bedrifter** står uten kunder"*

The lexical choices made in (3) are about acknowledging complexity while at the same time trying to keep such complexity under control. The main communicative goal behind this utterance was pointing out that several businesses, and not just a few, have been affected by the pandemic. (3) achieves this goal in the simplest, most straightforward way, i.e. it presents the main claim without providing too many details to qualify it. This strategy could have been adopted to avoid overwhelming the public with too many details, so that they can focus on the key messages that are being communicated. Another reason likely was the attempt to avoid widespread panic: Solberg wanted her constituents to realize that the situation was serious, but perhaps it was not conducive to anything to really dwell on how serious the situation actually was, or what that would have entailed for the economy of Norway.

A similar strategy is adopted in (4): we are told that "many initiatives" have been taken by the different municipalities to tackle the effects and the spread of covid-19, but it is not clear what

these are exactly. Presumably, this communicative strategy was adopted to reassure Solberg's audience that something *was* being done to address the situation, while at the same time avoiding overwhelming the audience with the exact details of what it is that is being done:

- 4) "In recent days, organizations, companies and municipalities have taken many initiatives to limit infection"  
*"De siste dagene har organisasjoner, bedrifter og kommuner tatt **mange** initiativ for å begrense smitte"*

Other relevant examples featuring the intensifier "mange" are provided in (5) to (7).

- 5) «We have **many** who fight for their life in our hospitals»  
*«Vi har **mange** som kjemper for sine liv på sykehusene våre»*
- 6) «We know that **many more** will be infected in the coming days»  
*«Vi vet at **mange flere** vil bli smittet i dagene som kommer»*
- 7) «SAS and Norwegian have grounded **many of their planes**»  
*«SAS og Norwegian setter **mange av flyene sine** på bakken»*

Example (5) is noteworthy because, in this example, Solberg chooses to use "mange" instead of providing the actual number of covid-19 patients admitted to a hospital at that time, which admittedly would have been more useful information. In (6), instead of providing a more accurate estimate of the likelihood of people to contract covid-19, she states again that "many" more people will contract the virus. These choices might have been motivated by two considerations: (i) a desire to avoid discussing probabilities, mathematical concepts and numbers that higher than a certain figure; recall from section 1 that a considerable portion of the population has low numeracy skills. (ii) the desire to avoid the state of panic that could ensue if numbers and probabilities are misunderstood, or conversely if quantitative information is understood perfectly. Reasonable as these concerns might sound, there are of course drawbacks to any communicative choice. For example, stating that "one in 10 Norwegians" may contract covid-19, instead of simply saying "many Norwegians", might have made the Covid-19 pandemic sound more real and thus encouraged more Norwegians to adopt responsible behavior like mask wearing and hand washing.

The relative frequency with which Solberg resorts to the intensifier «mange» is evident if we compare it to the frequency of related expressions in the speeches given by the other heads of state. In particular, in Solberg's speeches, mange appears 77 times (out of 14'105 words; relative frequency= 0.5%).

"Molte/i" (Italian for «many») appears 10 times in Conte's speeches (relative frequency= 0.08%). "Beaucoup de/des/d'" (French for «many») appears 23 times in Macron's speeches (relative frequency=0.18%). Finally, Boris Johnson uses «many» 60 times (relative frequency=0.19%).

Also note that, albeit the most frequent, «mange» is not the only expression used to entail numerosity:



- 8) **More and more industries** are affected. **Several companies** report layoffs. **Many workers** are quarantined or have to stay home with young children.  
*Flere og flere bransjer rammes. Flere bedrifter melder om permitteringer. Mange arbeidstakere er i karantene eller må være hjemme med små barn.*

Solberg's speeches might be poor in numerical data and numerical estimates, but this does not mean that numbers never make an appearance in her speeches. On the contrary, they are used quite abundantly, but only to form numbered lists, or to break down complex concepts into smaller parts. Below are a few examples:

- 9) "The important thing now is to avoid too steep peaks in the infection curve so that not many people get sick at the same time. This is **important for two reasons**."  
*"Det viktige nå er å unngå for bratte topper i smittekurven slik at ikke for mange blir syke samtidig. Det er **viktig av to grunner**"*
- 10) "Hence the government is now working on measures **in three different phases**"  
*"Derfor jobber regjeringen nå med tiltak **i tre ulike faser**"*
- 11) "I will thus go through **five new measures** that are or will be implemented in the next few days. **Number one**: Today we have decided to close our airports"  
*"Jeg vil derfor gå gjennom **fem nye grep** som er eller vil bli iverksatt de nærmeste dagene. **Nummer én**: Vi har i dag besluttet å stenge flyplassene våre"*

Segmenting information into smaller, more manageable bits seems a fairly obvious strategy when dealing with complexity, hence Solberg's reliance on numbered lists is not particularly surprising. What is more interesting is that Solberg does not simply use numbers to break down complexity, she also uses them to entail the presence of complexity when there is in fact none. Consider (12) in particular. In (12), Solberg makes a point of splitting up her plans for the immediate future in three clearly distinct phases; to the distracted listener, this segmenting creates the impression there is a carefully designed response plan in motion. Yet a more careful analysis of these three stages reveals how vague and fundamentally repetitive they sound:

- 12) "So the government is now working on measures in three different phases:  
In **the first phase**, we will already on Friday come with the necessary immediate measures to counteract unnecessary bankruptcies and dismissals.  
In **the second phase**, we are working on further concrete measures for industries and companies that are particularly hard hit (...)  
In **the third phase**, we are preparing more general measures to maintain activity in the economy, which can be implemented when the need arises"

***Derfor jobber regjeringen nå med tiltak i tre ulike faser:***

***I første fase** vil vi allerede på fredag komme med nødvendige strakstiltak for å motvirke unødvendige konkurser og oppsigelser.*

***I andre fase** jobber vi med ytterligere konkrete tiltak for bransjer og bedrifter som er spesielt hardt rammet (...)*

***I tredje fase** forbereder vi mer generelle tiltak for å opprettholde aktiviteten i økonomien, som kan settes inn når behovet oppstår.*

Notice in particular how the supposed strategy behind phases 1 and 3 is in both cases «we will come up with measures», which is admittedly more of a manifestation of intent than an actual plan. Phases 1 and 3 could have very well been grouped together and presented as a single informational unit: «we will come up with measures to ensure that businesses can keep going», for example. Why is Solberg adopting a communicative strategy that goes against her otherwise no-frills, parent-speak-like style, then? Because entailing the presence of complexity suggests there is a complicated plan in motion to tackle the covid-19 pandemic, and thus that Solberg's government is on top of the crisis. Saying that there is a plan in motion consisting of different phases admittedly fares better in convincing the general population that their government knows what they are doing than simply saying «measures will be taken».

#### 4. Emmanuel Macron

Earlier on, we saw that the Norwegian Prime Minister tends to favor discourse strategies that allows her to simplify and reduce the complexity associated with the covid-19 pandemic. For instance, she resorts to the proportional adverb *mange* to avoid the appearance of overly long list of items while still acknowledging that the covid-19 pandemic has affected many different parts of society.

Her strategy with the cardinal adverb „mange” is remarkably different from the strategy adopted by the French President Emmanuel Macron to deal with pluralities. Where Solberg chooses the „(and) many Xs” strategy, Macron favors long lists of nominal expressions. Here is a particularly relevant excerpt from his 12th-of-March speech:

- 13) “Restaurant owners, entrepreneurs, artisans, hoteliers, professionals in tourism, culture, events, transport are suffering already, I know”  
“*Déjà, des restaurateurs, des commerçants, des artisans, des hôteliers, des professionnels du tourisme, de la culture, de l'événementiel, du transport souffrent, je le sais*”

Compare to what Solberg said in similar contexts:

- 14) “More and more industries are affected”  
“Flere og flere bransjer rammes”  
15) “Many companies are feeling the effects of [Covid-19]”  
“Mange bedrifter som merker konsekvensene av [Covid-19]”

All of the examples above can be said to be utterances that effectively acknowledge the complexity of the covid-19 pandemic, as both (13) and (14-15) recognize that SARS-Cov-19 has affected many diverse parts of society. The approach towards this complexity is different, however: while Solberg attempts to manage such complexity so as not to overwhelm her audience with long lists of items, Macron capitalizes on such a complexity to show closeness and empathy to the French people. Resorting to these long lists of nominal expressions serves to prove that no one is being forgotten, and this is Macron's way of showing he is well aware of the struggles faced by every single category of French workers.

We are thus presented with a second way of exploiting complexity for political purposes. In section 1, we saw that Solberg exploits the complexity evoked by numbered lists to suggest a multi-part, comprehensive plan is behind what her cabinet is doing to tackle the covid-19 pandemic. In this section, we saw that Macron purposely avoids simplifying the discussion of pluralities -like Solberg does with *mange* – because spelling out exactly who is affected by the pandemic helps him score sympathy points: he gets to be perceived as less distant from the problems faced by his constituents.

The strategy behind (13) therefore is not a strategy about handling complexity, but rather about using complexity for a particular purpose. What strategies does Macron then adopt to actually handle complexity? The chief strategy used by Macron is the use of self-directed questions, that is, questions that Macron asks and then immediately addresses himself. If we look at the October-the-28th speech alone, for example, we see that 9 self-directed questions were used. One of the first self-directed questions Macron uses is the following:

- 16) "What's the current outlook of the pandemic?"  
*"Quelle est à cette heure la situation de notre épidémie ?"*

Immediately after posing this question, he brings up and discusses a number of topics, among which we find:

- 17)
- a. How fast the virus is spreading (*vitesse de la circulation du virus*)
  - b. What is the number of infected people (*nombre de contaminations*)
  - c. The difference with respect to the first epidemic wave: "As opposed to the first wave, all regions are now on high alert" (*l'ensemble des régions...au seuil d'alerte*)
  - d. Critical medical procedures getting postponed: "We have started to postpone cancer or heart surgeries" (*nous avons commencé à déprogrammer des opérations du coeur ou du cancer*)

According to Rooth (1985, 1992), semantically speaking, the „meaning“ of a question corresponds to the set of possible answers to the question itself. For example, the semantic interpretation of a question like „Is Macron French?“ corresponds to a set containing the corresponding negative and positive-polarity version of the proposition at hand, namely the set [Macron is French; Macron is not French]. Indeed, these two propositions are the only two acceptable replies to a polarity question like „is Macron French?“. Similarly, the meaning of a question like „what's the current pandemic outlook?“ will correspond to the set of all its possible -meaning relevant, acceptable- answers. Note that items 17a-c all qualify as relevant answers to the larger question in (16), whereas (17d) appears to be more of a follow-up to subpoints (17a-b).

By posing these self-directed questions, Macron creates expectations as to what he is going to discuss next. These expectations pertain and relate to the set of propositions that represent the semantic meaning of the questions: the set of possible answers to the question itself. Hence if Macron asks a self-directed question about the pandemic outlook, we expect he will likely discuss the rate of infection, the number of recovered patients or the number of available

intensive care beds, as these are all pieces of data that the majority of us would deem to be relevant in the context of the question just asked.

By creating specific expectations as to what topics are going to be touched upon, it becomes easier to process the information which is being provided once these questions get addressed: if one expects the current rate of infection to be mentioned at some point, it will be that much easier to process that information once it is presented.

These self-directed questions are thus an excellent strategy to present information in a way which is less likely to overwhelm one's audience.

Not only do self-directed questions help in rendering complex information more processable, they can also be used to globally connect different parts of the discourse so it is perceived as a coherent unit. Again, this helps one better process the information being provided by the speaker, as it becomes clearer what is the role of each communicative unit in the larger discourse. In Macron's 28th of October speech, the 9 self-directed questions are logically connected to one another: the answer to one question provide fertile ground to discuss the issues connected to the following questions.

An obvious example of the fil rouge created by these self-directed questions are questions 4 and 5:

18)

Q4: "What are our goals?"

*"Quels sont nos objectifs ?"*

Q5: "What then are the possible strategies to achieve these objectives?"

*«Quelles sont dès lors les stratégies possibles pour arriver à ces objectifs?»*

Question 4 sets out a series of goals that Macron wants to achieve in the coming months. Question 5 then picks up on this list of goals and further qualifies them by discussing how these goals can be achieved.

Noteworthy is also the use of visual aids in his later speeches: in his 28th of October speech, Macron's words are supplemented by on-screen pictures and charts detailing the new restrictions to implemented soon. Several studies (Dale 1969, Joyce and Showers 1981, Birch and Belmont 1965, Beeland 2001) have highlighted that visual aids can help to highlight and clarify important parts of a presentation. They also help ensure better retention of what is being discussed. Finally, visual cues are linked with a higher degree of trust in the authenticity of the speaker's message. It is thus surprising that on-screen visual aids only make an appearance in late October, i.e. well into the 2nd covid-19 pandemic wave. This is not an isolated phenomenon either: Giuseppe Conte, the Italian Prime Minister, only started using visual cues in November 2021, and this is despite giving 3 times as many speeches as Macron during the time period considered for this study. An explanation for the lack of visual aids could be the extreme time pressure that characterized the covid-19 response during first pandemic wave. In the case of Giuseppe Conte in particular, it was evident – both because of the content and their timing: they were often given late in the evening, or much later than communicated- that

they were ultimated last minute. This time pressure might have then prevented these two world leaders from implementing a visual-aid strategy for their 1st-wave speeches.

## 5. Boris Johnson

One of the main characteristics differentiating the British Prime Minister's communicative style from that of the other leaders analyzed here is his consistent use of slogans and catchphrases; no other leader among those analyzed in this study uses as many.

Johnson uses these slogans and catchphrases to break down complex measures into more easily processable bits, to bring attentions to key concepts and notions, and to facilitate content retention. In this sense, this is one of the main strategies he adopts to handle complexity, although whether or not this goal has been met is dubious. We consider some of slogans he uses below:

19) "The four phases of our approach to tackling the virus: **Contain, Delay, Research, and Mitigate.**

Johnson repeated the words «Contain, Delay, Research, Mitigate» several times during the first pandemic wave. At some point, these were even printed out on the podium he gave his speeches from. This slogan served as a catchier shorthand to remind everyone of the succession of phases which formed the government's plan. Psychologically, it is also designed to give people the impression that their government had a clearly delineated, rational strategy planned, and hence that they were on top of the situation.

20) "Our objective is to **delay and flatten the peak**"

21) "...the ambition of this government to **turn the tide** against coronavirus"

These are slogans designed to be catchy – or sound so, at least; notice the alliteration in (21)- so that they can be repeated often and hence remembered more easily. Using slogans to break down the complexity associated with the pandemic might indeed be a winning strategy because specific behavior can be linked with easily remembered auditory cues. Care must however be placed in which expressions are chosen to form such slogans: if the expressions chosen are too vague, for example, an effect opposite to the desired one will be obtained. In the case of (20), understanding what «flattening the peak» means requires an understanding of two-dimension graphs, which not everyone might have (see again section 1 on numeracy). Indeed, this expression was criticized by PR experts at the time for being unappealing and ineffective. Regarding (21), while this does indeed work well prosodically, one could argue a less metaphorical expression could have been employed instead: in the context of a pandemic, absolute clarity should have been favored instead.

22) "So those are the basics – **hands, face, space** – and get a test if you have COVID symptoms"

(22) capitalizes on the power of mnemonics -auditory cues, in this case- to drill a complex series of actions into one's mind: people must remember to wash their hands, avoid touching their faces and maintain adequate distancing between oneself and other people. The added rhyme between «face» and «space» also contributes to rendering «hands, face, space» a jingle-

like slogan that is easy to remember. (22) is probably the most effective use of slogans to break down complexity among those we review in this article.

23) "We are now asking people to **Stay Alert, Control the Virus and Save Lives**"

A variation of the same strategy behind (19): collapsing a series of separate events into a single slogan, so that these events can be more easily internalized. Notice that we cannot really talk of a series of «actions» to be internalized here, as it was the case for (19); 'stay alert' is the only part of this slogan that corresponds to an action an individual could actually undertake. This is on the basis of whatever 'staying alert' means in this case: at the time it was widely perceived as meaningless, so much so that both the regional governments of Wales and Scotland decided not to use it. «Control the virus» and «save lives» are clearly mainly added to provide a concrete motivation for staying alert, i.e. «if you stay alert, you can control the virus and then save lives». In this sense, both (19) and (23) incorporate time succession (first we contain and then we delay; if you first stay alert, you can then control the virus). The difference is that whereas in the case of (19), this time succession is intrinsic in the nature of the steps described in the slogan, time succession is fictitious in (23): it is added to create an artificial sense of progression and of cause-effect that people can refer to when deciding on their day-to-day behavior.

24) "...we are introducing **the rule of 6...**", "Now you only need to remember **the rule of 6**"

This is an excellent example of Johnson's cabinet's attempt to use the power of slogans, mottos and catchphrase to help people internalize new habits and behavior. Johnson could have very well simply said «we are mandating that no more than 6 people can gather together», but surely «the rule of 6» sounds like a catchier way of expressing the same concept. And what is catchier is more likely to be remembered.

Other than catchphrases and slogans, a prominent strategy used by Johnson to manage complexity is to resort to signposting. Signposting is a communication technique that consists in giving our interlocutor overt indications as to where our verbal communication is headed. Providing our interlocutor with such indications helps them process faster what they are about to hear: when we have a good idea about what we will hear, we can process what is being said considerably faster. Hearing something contrary to our expectations, on the other hand, can contribute to longer processing time. Considering how fast a brain processes language, a matter of milliseconds can slow down comprehension, causing a listener to completely misunderstand what was said. Misunderstanding what is being said could have disastrous consequences if what is being discussed is behavior to adopt to mitigate the effects of a deadly pandemic.

Technically speaking, using expressions such as "actually" or "as a matter of fact" already qualifies as signposting, in that these expressions already provide an indication as to the gist and the flavor of what the speaker's utterance is going to be about. The British Prime Minister however does not simply use these expressions, he provides full-fledged description of what he is going to discuss next. Below are a few examples:

25) "I want to **go through our overall plan for beating this new coronavirus**"

- 26) "And so tonight **I want to update you on the latest steps we are taking** to fight the disease and what you can do to help"
- 27) "**I want to begin by reminding you** why the UK has been taking the approach that we have"
- 28) "So **I want to provide tonight** - for you - **the shape of a plan** to address both fears"
- 29) "**I want to update you on the progress** we are making on three fronts to prevent a second wave of infections that could overwhelm the NHS"
- 30) "And **I want to explain the reasons** for introducing these measures now"
- 31) "**I will now take you through our latest assessment** of progress against each of the five tests"

The motivation and the end results behind Johnson's extreme signposting is similar to what motivates Macron's self-directed questions: both leaders want to ensure that what is being said can be quickly processed and fully understood by their audience. Finally, both techniques can be used to ensure that topics being discussed can be accurately framed in the context of the larger discourse.

## 6. Giuseppe Conte

Giuseppe Conte's speeches are a particularly interesting case study to analyze how complexity can be communicated in a time of crisis because they perfectly illustrate how extreme time pressure in the context of a pandemic can derail effective communication.

Italy was the first European country to be hit by Covid-19. Between the 31st January 2020, when a state of national emergency was first, and the easing of containment restrictions in June, Italy was 'hit by nothing short of a tsunami of unprecedented forces, punctuated by an incessant stream of deaths. [...] Italy's biggest crisis since World War II' (Pisano et al., 2020). Italy was also the first European country to implement a strict lockdown, and to introduce measures such as self-certification forms to be carried if leaving one's home. Because of the tsunami nature of the covid-19 outbreak, and the fact that there was no other country to look at to understand what to do, Giuseppe Conte's communicative style were arguably more shaped by time pressure than those of other world leaders.

The effects of time pressure are particularly evident if we compare Conte's 4th of March speech with the speech he gave only 4 days later. In the 4th of March televised address to the nation, we see many of communicative strategies that were adopted by other European leaders discussed in this article.

Just like Solberg, Conte privileges parataxis and sentences that are on average fairly short.

Like Johnson, he resorts to signposting:

- 32) «Oggi torno a parlarVi per informarVi che sono in arrivo nuove misure»  
*«Today I am back to inform you that new measures will be implemented soon»*

Similarly to Macron, he resorts to questions to better frame the information he provides next:

- 33) «Perché allora tanta preoccupazione, vi chiederete?»

*«Why should we worry so much, you might ask?»*

This is a relatively short speech (709 words) which has a clear focus on behavior that the Italian people must implement right away. This is clearly communicated by means of a concrete, actionable actions that people are to take. Parataxis and straight-to-the-point language is favored:

34) *«Dobbiamo assumere un comportamento responsabile. Dobbiamo lavare le mani spesso. Starnutiamo e tossiamo in un fazzoletto o nella piega del gomito. Manteniamo 1 metro di distanza nei contatti sociali. Evitiamo abbracci e strette di mano, evitiamo luoghi affollati»*

*«We must behave responsibly. We have to wash our hands often. We should sneeze and cough into a tissue or the crook of our arm. We should maintain a 1-meter distance when meeting people. We should avoid hugs and handshakes, we should avoid crowded places*  
"

It is obvious that the 4th of March speech was a speech that was prepared in advance. The 8th of March speech, on the other hand, was given in a rush as damage control to the leakage of a draft decree that was only supposed to be released the day after. This decree banned more than 16 million people from leaving their region, hence it was understandably met with widespread chaos. The rushed nature of this speech is obvious: this is a fairly long (1880 words) and rather confusing speech where Conte commits several communicative *faux pas*. This is particularly unfortunate since this is the first covid-19-related speech in which truly complex measures are being discussed: the introduction of lockdown measures, the closure of several business activities, and the creation of two distinct geographical areas in the country where different restrictions apply. A clear communicative strategy to tackle this complexity would thus have then been all the more needed.

Therefore, while we can certainly say that the complexity of the Covid-19 pandemic is evident in Conte's 8th of March speech, we cannot say that the Italian Prime Minister employed any particular strategy to keep it in check at the time. Consider how Conte announced which social activities would have been banned in the following weeks:

35) *"... and also all organized events are suspended, as well as events taking place in public, private places, all exhibitions, all those events that have a recreational, cultural, sportive, religious nature, but also... all events in cinemas, theaters, pubs, dance schools, amusement parks, arcades, betting rooms, bingo halls, clubs"*

Here is a similar excerpt from that very same speech, this one detailing the measures that will apply to a different set of geographical areas:

36) *«demonstrations, events, shows of any kind are also suspended, therein including cinematographical and theatrical events, held in any space, whether public and private. Activities in pubs, dance schools, arcades, betting rooms, bingo halls, discos and similar clubs are also suspended in the rest of the country. The opening of museums and other cultural venues is suspended. The carrying out of restaurant and bar activities is allowed, but here too the business owner is obliged to enforce the interpersonal safety distance of*



*at least one meter, with the sanction of suspension of the business activity in case of violation. (...) School trips, exchange initiatives, cultural partnerships, guided tours, educational activities are also suspended. These are more or less the measures [we'll implement], this is a summary, these are the most important and the more relevant ones.*

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It is obvious that Conte is here reading from the actual text of the decree; notice the formal language being used («ivi» is used (=therein), which is an expression often found in legal documents), and the impressive comprehensiveness of the events being listed (even bingo halls made the cut).

Compare to what the British Prime Minister said in a similar context:

37) "You should avoid pubs, clubs, theatres and other such social venues."

Using expressions such as „as far as X is concerned“, as show in (38), would have helped segment the measures being described in easier-to-process units. (38) is an excerpt taken from Conte's 26th of April speech:

38) „Ancora. **Per quanto riguarda...** cosa cambia attività sportiva e motoria (...). **Per quanto riguarda le cerimonie funebri...** (...) c'è stata però una apertura per quanto riguarda le cerimonie funebri. e quindi devo aprire una parentesi"  
„Also. **As far as....**what changes [with respect to] sports and physical activity (...) . **As far as funeral ceremonies are concerned....** (...) there was an opening regarding funeral ceremonies. and so I have to open a parenthesis:

This topicalization strategy achieves an effect similar to what signposting does: it alerts the listener to what is about to be discussed, allowing them to process information faster. Its locality (expressions like „as far as X is concerned“ are introduced right before X is mentioned) allows listeners to pay more or less attention to specific informational units depending on whether or not they are personally relevant for them. When lots of information needs to be communicated, therefore, this is a particularly appropriate communicative strategy because it is unreasonable to expect that listeners will be able to maintain a high level of attention throughout the entirety of a speech, particularly if this is long and details complex measures.

Yet expressions like „as far as X is concerned“ are remarkably infrequent in Conte's covid-19 addresses. With the exception of the 26th of April speech (which marked the end of the first lockdown), where it appears 8 times, this expression appears on average only once per speech.

Particularly interesting is the use of „ancora“ (= *also, again*) to segment discourse units. Below is a relevant excerpt from the 26th of April speech:

39) „**Ancora:** all'interno delle regioni sono consentiti gli spostamenti così come sono adesso. (...) **Ancora:** in.. introduciamo una regola più stringente per coloro che presentano una sintomatologia da infezione respiratoria e febbre maggiore di 37 gradi

e mezzo. (...) **Ancora:** i divieti di assembramenti rimarranno. (...) **Ancora.** per quanto riguarda... cosa cambia attività sportiva e motoria"

*„Also: within regions, the current restrictions on movement remain. (...) Also: in .. we are introducing more stringent rules that affect those who show symptoms of a respiratory infection and have a fever which is higher than 37.5 degrees. (...) Also: current prohibitions on gatherings will stay the same. (...) Also. as for ... what changes [with respect to] sports and physical activity"*

Again, while this communicative style certainly highlights the complexity associated with reopening a country after it has been under a strict lockdown for more than a month, we cannot say it does anything to actually manage this complexity in a way that it is communicatively efficient. Segmenting discourse this way is better than the uninterrupted stream of words we see in (36), but the lack of signposting or topicalizations still makes (39) harder to process than it should be.

Conte uses slogans only once in his speeches: when he introduces the „io resto a casa“ (*I’m staying home*) slogan in the 9th of March speech. This was a slogan designed to be used as an hashtag as well. Note the implied contrastivity of the pronominal subject „io“; being Italian a null subject language, overt subjects are generally interpreted as contrastive.

„#io resto a casa“ is miles away from the type, tone and frequency of the slogans used by the British Prime Minister, but perhaps this one, unassuming slogan is more effective than most of those used by Johnson. „I’m staying home“ may not sound as poetic as „turn the tide“, or as bombastic as „Stay Alert... Save Lives“, but unlike these two slogans, it is straightforward and completely non-ambiguous. It also manages to reduce the complexity of pandemic-related behavioral guidelines into a single, key message that is easy to implement.

A final mention should be made to the 11th of March speech, as this is the speech in which the most mentions to the covid-19 pandemic being a complex phenomenon. Conte talks about the pandemic threatening both the the health of the Italian people *and* their economy, hence the need to have a 360-degree view („*avere una visione a 360 gradi*“) when implementing containment measures. He mentions the need to implement measures gradually as Italy is a big and thus complex country („*un Paese grande, moderno, complesso*“). Particularly interesting is his strategy to explain that any mitigation measures will take no less than two weeks to yield any noticeable result. This was an essential piece of information for the public to understand as containment of the outbreak was dependent on the continued adoption of correct individual behavior. Understanding the timeline of containment measures was also essential to avoid widespread panic had the number of fatalities and new infections started to rise in the days after this speech was given -which they tragically did-. Notice how Conte highlights the word „weeks“; this is repeated three times in just two sentences.

- 40) „È importante essere consapevoli che abbiamo cominciato da poco a cambiare le nostre abitudini, l’effetto di questo nostro grande sforzo potremo vederlo solo **tra poche settimane, un paio di settimane**. Nessuno quindi deve pensare che già domani, nei prossimi giorni, potremo misurare l’impatto di queste misure. Per avere un riscontro dovremo attendere **un paio di settimane**.“

It is essential that we are aware of the fact we have only just recently begun to change our habits, [so] we will only be able to see the results of our great efforts **in a few weeks, a couple of weeks**. Therefore, no one should think that tomorrow, in the next few days, we will be able to measure the impact of these measures. To see results we will have to wait **a couple of weeks**.

## 7. Conclusions

For this study, I examined 57 speeches delivered between March 2020 and October 2020 by four European politicians, all of whom were leaders of their respective countries at the time: Erna Solberg (Prime Minister of Norway), Giuseppe Conte (Italian Prime Minister), Emmanuel Macron (French President) and Boris Johnson (Prime Minister of the UK). My goal was to analyze which communicative strategies these leaders adopted to explain the complexity associated with the Covid-19 pandemic, and how they dealt with the intrinsic complexity of the containment measures imposed by their governments. I was also interested in the effect of time pressure on complexity communicative strategies.

Each of these four leaders adopted different communicative strategies and overall exhibited a very distinctive style. **Solberg** chose to tackle complexity through oversimplification. She avoided long lists of nominal expressions and chose to entail plurality by using adverbs like «many» instead. She avoided providing numerical data even in contexts where quantitative data would have been called for; this strategy seems in line with the many studies showing that numeracy in the general population is fairly low. If she did use numbers, it was to break down complex set of measures, or complex sets of reasons, into smaller, more easily processable information units. **Macron**'s main strategy to deal with complexity was the use of self-directed questions, which the French president used to structure the discourse and allow his audience to better understand how different pieces of information were connected to each other. Later in 2020, he also started using visual aids like on-screen figures and text to make his speeches even more accessible. **Johnson** used extensive signposting to help his listeners better understand the information he discusses; he also resorted to the use of slogans and catchphrases to break down complex series of actions into memorable auditory cues. The effect of increased time pressure in the context of a crisis was particularly evident in **Conte**'s early pandemic speeches; in these speeches, no particular strategy was used to tackle complexity. Conte appeared to simply be reading off the text of a government decree, making it difficult for his audience to process and remember all that information.

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